TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-104284-1
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
12/9/2015 8:38:26 AM

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-104284-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-104284-1

Comments
No additional comments.

Receipt
The samples were received on 11/20/2015 6:26 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.1º C, 2.6º C and 3.2º C.

Metals
Method(s) 6020A: The low level check standard (ICVL) recovery associated with batch 500-314797 is above the acceptance criteria for the following analyte: Beryllium. The associated sample concentrations were non-detect; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-104284-1	T03S	GW	11/19/15 09:59	11/20/15 06:26
500-104284-2	R32S	GW	11/19/15 11:39	11/20/15 06:26
500-104284-3	G20S	GW	11/19/15 13:40	11/20/15 06:26
500-104284-4	DUP	Water	11/19/15 11:39	11/20/15 06:26
500-104284-5	G30S	GW	11/20/15 09:21	11/20/15 16:05
500-104284-6	G44S	GW	11/20/15 11:54	11/20/15 16:05
500-104284-7	G45S	GW	11/20/15 13:25	11/20/15 16:05
500-104284-8	G48S	GW	11/20/15 14:25	11/20/15 16:05
500-104284-9	G46S	GW	11/23/15 10:10	11/24/15 07:15
500-104284-10	R08S	Water	11/23/15 11:47	11/24/15 07:15
500-104284-11	G47S	GW	11/23/15 13:50	11/24/15 07:15

Client Sample ID: T03S
Date Collected: 11/19/15 09:59
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-1
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.019**		0.010		mg/L		11/24/15 17:00	11/25/15 12:36	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 20:53	1
Arsenic	**0.0019**		0.0010		mg/L		11/24/15 17:00	12/01/15 20:53	1
Barium	**0.063**		0.0025		mg/L		11/24/15 17:00	12/01/15 20:53	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 20:53	1
Boron	**0.52**		0.050		mg/L		11/24/15 17:00	12/01/15 20:53	1
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 20:53	1
Calcium	**110**		0.20		mg/L		11/24/15 17:00	12/01/15 20:53	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 20:53	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 20:53	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 20:53	1
Molybdenum	**0.026**		0.0050		mg/L		11/24/15 17:00	12/01/15 20:53	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 20:53	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 20:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 11:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**710**		10		mg/L			11/21/15 02:21	1
Chloride	**75**		2.0		mg/L			12/01/15 12:09	1
Fluoride	**0.22**		0.10		mg/L			11/21/15 18:53	1
Sulfate	**250**		50		mg/L			12/03/15 11:22	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**136.30**				ft			11/19/15 09:59	1
Depth to water from land surface	**133.22**				ft			11/19/15 09:59	1
Elevation of well (ft from MP)	**629.65**				ft			11/19/15 09:59	1
Field pH	**7.07**				SU			11/19/15 09:59	1
Field Temperature	**47.8**				Degrees F			11/19/15 09:59	1
Ground Water Elevation	**493.35**				ft			11/19/15 09:59	1
Specific Conductance	**1007**				umhos/cm			11/19/15 09:59	1
Well bottom elevation	**456.70**				ft			11/19/15 09:59	1

Client Sample ID: R32S
Date Collected: 11/19/15 11:39
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-2
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.040**		0.010		mg/L		11/24/15 17:00	11/25/15 12:40	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 20:56	1
Arsenic	**0.0018**		0.0010		mg/L		11/24/15 17:00	12/01/15 20:56	1
Barium	**0.033**		0.0025		mg/L		11/24/15 17:00	12/01/15 20:56	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 20:56	1
Boron	**1.3**		0.050		mg/L		11/24/15 17:00	12/01/15 20:56	1
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 20:56	1
Calcium	**99**		0.20		mg/L		11/24/15 17:00	12/01/15 20:56	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 20:56	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 20:56	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 20:56	1
Molybdenum	**0.16**		0.0050		mg/L		11/24/15 17:00	12/01/15 20:56	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 20:56	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 20:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 11:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**640**		10		mg/L			11/21/15 02:36	1
Chloride	**88**		4.0		mg/L			12/01/15 12:38	2
Fluoride	**0.28**		0.10		mg/L			11/21/15 18:56	1
Sulfate	**210**		50		mg/L			12/03/15 11:23	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**19.99**				ft			11/19/15 11:39	1
Depth to water from land surface	**17.96**				ft			11/19/15 11:39	1
Elevation of well (ft from MP)	**536.81**				ft			11/19/15 11:39	1
Field pH	**7.32**				SU			11/19/15 11:39	1
Field Temperature	**51.8**				Degrees F			11/19/15 11:39	1
Ground Water Elevation	**516.82**				ft			11/19/15 11:39	1
Specific Conductance	**745**				umhos/cm			11/19/15 11:39	1
Well bottom elevation	**457.84**				ft			11/19/15 11:39	1

Client Sample ID: G20S
Date Collected: 11/19/15 13:40
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-3
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.036**		0.010		mg/L		11/24/15 17:00	11/25/15 12:45	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:00	1
Arsenic	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:00	1
Barium	**0.049**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:00	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:00	1
Boron	**1.2**		0.050		mg/L		11/24/15 17:00	12/01/15 21:00	1
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:00	1
Calcium	**59**		0.20		mg/L		11/24/15 17:00	12/01/15 21:00	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:00	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:00	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:00	1
Molybdenum	**0.0068**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:00	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 21:00	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 11:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**410**		10		mg/L			11/21/15 02:43	1
Chloride	**12**		2.0		mg/L			12/01/15 12:10	1
Fluoride	**0.82**		0.10		mg/L			11/21/15 18:58	1
Sulfate	**110**		25		mg/L			12/03/15 11:24	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**55.33**				ft			11/19/15 13:40	1
Depth to water from land surface	**52.55**				ft			11/19/15 13:40	1
Elevation of well (ft from MP)	**580.33**				ft			11/19/15 13:40	1
Field pH	**7.73**				SU			11/19/15 13:40	1
Field Temperature	**57.4**				Degrees F			11/19/15 13:40	1
Ground Water Elevation	**525.00**				ft			11/19/15 13:40	1
Specific Conductance	**621**				umhos/cm			11/19/15 13:40	1
Well bottom elevation	**442.28**				ft			11/19/15 13:40	1

Client Sample ID: DUP

Date Collected: 11/19/15 11:39
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.044**		0.010		mg/L		11/24/15 17:00	11/25/15 12:49	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:04	1
Arsenic	**0.0017**		0.0010		mg/L		11/24/15 17:00	12/01/15 21:04	1
Barium	**0.034**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:04	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:04	1
Boron	**1.4**		0.050		mg/L		11/24/15 17:00	12/01/15 21:04	1
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:04	1
Calcium	**100**		0.20		mg/L		11/24/15 17:00	12/01/15 21:04	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:04	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:04	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:04	1
Molybdenum	**0.16**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:04	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 21:04	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 11:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**650**		10		mg/L			11/21/15 02:50	1
Chloride	**98**		4.0		mg/L			12/01/15 12:38	2
Fluoride	**0.28**		0.10		mg/L			11/21/15 19:00	1
Sulfate	**230**		50		mg/L			12/03/15 11:25	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**19.99**				ft			11/19/15 11:39	1
Depth to water from land surface	**17.96**				ft			11/19/15 11:39	1
Elevation of well (ft from MP)	**536.81**				ft			11/19/15 11:39	1
Field pH	**7.32**				SU			11/19/15 11:39	1
Field Temperature	**51.8**				Degrees F			11/19/15 11:39	1
Ground Water Elevation	**516.82**				ft			11/19/15 11:39	1
Specific Conductance	**745**				umhos/cm			11/19/15 11:39	1
Well bottom elevation	**457.84**				ft			11/19/15 11:39	1

Client Sample ID: G30S
Date Collected: 11/20/15 09:21
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-5
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.022		0.010		mg/L		11/24/15 17:00	11/25/15 12:53	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:19	1
Arsenic	0.014		0.0010		mg/L		11/24/15 17:00	12/01/15 21:19	1
Barium	0.041		0.0025		mg/L		11/24/15 17:00	12/01/15 21:19	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:19	1
Boron	5.8		0.50		mg/L		11/24/15 17:00	12/02/15 11:54	10
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:19	1
Calcium	63		0.20		mg/L		11/24/15 17:00	12/01/15 21:19	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:19	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:19	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:19	1
Molybdenum	0.33		0.0050		mg/L		11/24/15 17:00	12/01/15 21:19	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 21:19	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 11:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			11/22/15 02:55	1
Chloride	190		10		mg/L			12/01/15 12:39	5
Fluoride	1.3		0.10		mg/L			11/21/15 19:03	1
Sulfate	580		100		mg/L			12/03/15 11:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	2.74				ft			11/20/15 09:21	1
Depth to water from land surface	0.43				ft			11/20/15 09:21	1
Elevation of well (ft from MP)	524.40				ft			11/20/15 09:21	1
Field pH	7.46				SU			11/20/15 09:21	1
Field Temperature	47.7				Degrees F			11/20/15 09:21	1
Ground Water Elevation	521.66				ft			11/20/15 09:21	1
Specific Conductance	1500				umhos/cm			11/20/15 09:21	1
Well bottom elevation	462.58				ft			11/20/15 09:21	1

Client Sample ID: G44S
Date Collected: 11/20/15 11:54
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-6
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.017**		0.010		mg/L		11/24/15 17:00	11/25/15 13:06	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:23	1
Arsenic	**0.0012**		0.0010		mg/L		11/24/15 17:00	12/01/15 21:23	1
Barium	**0.053**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:23	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:23	1
Boron	**1.0**		0.050		mg/L		11/24/15 17:00	12/02/15 11:58	1
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:23	1
Calcium	**120**		0.20		mg/L		11/24/15 17:00	12/01/15 21:23	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:23	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:23	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:23	1
Molybdenum	**0.10**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:23	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 21:23	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 11:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**640**		10		mg/L			11/22/15 02:57	1
Chloride	**43**		2.0		mg/L			12/01/15 12:12	1
Fluoride	**0.21**		0.10		mg/L			11/21/15 19:05	1
Sulfate	**220**		50		mg/L			12/03/15 11:27	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**80.54**				ft			11/20/15 11:54	1
Depth to water from land surface	**78.36**				ft			11/20/15 11:54	1
Elevation of well (ft from MP)	**586.69**				ft			11/20/15 11:54	1
Field pH	**7.11**				SU			11/20/15 11:54	1
Field Temperature	**51.4**				Degrees F			11/20/15 11:54	1
Ground Water Elevation	**506.15**				ft			11/20/15 11:54	1
Specific Conductance	**923**				umhos/cm			11/20/15 11:54	1
Well bottom elevation	**455.11**				ft			11/20/15 11:54	1

Client Sample ID: G45S
Date Collected: 11/20/15 13:25
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-7
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.036**		0.010		mg/L		11/24/15 17:00	11/25/15 13:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:26	1
Arsenic	**0.0081**		0.0010		mg/L		11/24/15 17:00	12/01/15 21:26	1
Barium	**0.044**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:26	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:26	1
Boron	**0.81**		0.050		mg/L		11/24/15 17:00	12/02/15 12:02	1
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:26	1
Calcium	**120**		0.20		mg/L		11/24/15 17:00	12/01/15 21:26	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:26	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:26	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:26	1
Molybdenum	**0.012**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:26	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 21:26	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 12:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**810**		10		mg/L			11/22/15 03:00	1
Chloride	**180**		10		mg/L			12/01/15 12:39	5
Fluoride	**0.35**		0.10		mg/L			11/21/15 19:16	1
Sulfate	**360**		50		mg/L			12/03/15 11:28	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**68.90**				ft			11/20/15 13:25	1
Depth to water from land surface	**65.93**				ft			11/20/15 13:25	1
Elevation of well (ft from MP)	**603.31**				ft			11/20/15 13:25	1
Field pH	**7.20**				SU			11/20/15 13:25	1
Field Temperature	**54.3**				Degrees F			11/20/15 13:25	1
Ground Water Elevation	**534.41**				ft			11/20/15 13:25	1
Specific Conductance	**1237**				umhos/cm			11/20/15 13:25	1
Well bottom elevation	**471.05**				ft			11/20/15 13:25	1

Client Sample ID: G48S
Date Collected: 11/20/15 14:25
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-8
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.015**		0.010		mg/L		11/24/15 17:00	11/25/15 13:15	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:30	1
Arsenic	**0.030**		0.0010		mg/L		11/24/15 17:00	12/01/15 21:30	1
Barium	**0.015**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:30	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:30	1
Boron	**11**		0.50		mg/L		11/24/15 17:00	12/02/15 12:05	10
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:30	1
Calcium	**6.9**		0.20		mg/L		11/24/15 17:00	12/01/15 21:30	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:30	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:30	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:30	1
Molybdenum	**1.4**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:30	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 21:30	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 12:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			11/22/15 03:02	1
Chloride	**120**		10		mg/L			12/01/15 12:41	5
Fluoride	**1.5**		0.10		mg/L			11/21/15 19:18	1
Sulfate	**760**		100		mg/L			12/03/15 11:29	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**106.83**				ft			11/20/15 14:25	1
Depth to water from land surface	**104.38**				ft			11/20/15 14:25	1
Elevation of well (ft from MP)	**620.77**				ft			11/20/15 14:25	1
Field pH	**9.08**				SU			11/20/15 14:25	1
Field Temperature	**52.2**				Degrees F			11/20/15 14:25	1
Ground Water Elevation	**513.94**				ft			11/20/15 14:25	1
Specific Conductance	**1590**				umhos/cm			11/20/15 14:25	1
Well bottom elevation	**468.32**				ft			11/20/15 14:25	1

Client Sample ID: G46S
Date Collected: 11/23/15 10:10
Date Received: 11/24/15 07:15

Lab Sample ID: 500-104284-9
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.073**		0.010		mg/L		11/24/15 17:00	11/25/15 13:20	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:34	1
Arsenic	**0.0033**		0.0010		mg/L		11/24/15 17:00	12/01/15 21:34	1
Barium	**0.064**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:34	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:34	1
Boron	**6.0**		0.50		mg/L		11/24/15 17:00	12/02/15 12:09	10
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:34	1
Calcium	**110**		0.20		mg/L		11/24/15 17:00	12/01/15 21:34	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:34	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:34	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:34	1
Molybdenum	**0.50**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:34	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 21:34	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 12:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**780**		10		mg/L			11/25/15 08:35	1
Chloride	**80**		4.0		mg/L			12/01/15 12:42	2
Fluoride	**0.27**		0.10		mg/L			11/25/15 14:00	1
Sulfate	**430**		100		mg/L			12/03/15 11:32	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**95.78**				ft			11/23/15 10:10	1
Depth to water from land surface	**93.08**				ft			11/23/15 10:10	1
Elevation of well (ft from MP)	**601.32**				ft			11/23/15 10:10	1
Field pH	**7.32**				SU			11/23/15 10:10	1
Field Temperature	**50.4**				Degrees F			11/23/15 10:10	1
Ground Water Elevation	**505.54**				ft			11/23/15 10:10	1
Specific Conductance	**1131**				umhos/cm			11/23/15 10:10	1
Well bottom elevation	**453.62**				ft			11/23/15 10:10	1

Client Sample ID: R08S
Date Collected: 11/23/15 11:47
Date Received: 11/24/15 07:15

Lab Sample ID: 500-104284-10
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.14**		0.010		mg/L		11/24/15 17:00	11/25/15 13:24	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:38	1
Arsenic	**0.0019**		0.0010		mg/L		11/24/15 17:00	12/01/15 21:38	1
Barium	**0.052**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:38	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:38	1
Boron	**6.9**		0.50		mg/L		11/24/15 17:00	12/02/15 12:13	10
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:38	1
Calcium	**130**		0.20		mg/L		11/24/15 17:00	12/01/15 21:38	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:38	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:38	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:38	1
Molybdenum	**0.41**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:38	1
Selenium	**0.0061**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:38	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 12:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**740**		10		mg/L			11/25/15 08:37	1
Chloride	**77**		4.0		mg/L			12/01/15 12:42	2
Fluoride	**0.19**		0.10		mg/L			11/25/15 14:04	1
Sulfate	**520**		100		mg/L			12/03/15 11:33	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**66.74**				ft			11/23/15 11:47	1
Depth to water from land surface	**64.19**				ft			11/23/15 11:47	1
Elevation of well (ft from MP)	**578.65**				ft			11/23/15 11:47	1
Field pH	**7.80**				SU			11/23/15 11:47	1
Field Temperature	**52.5**				Degrees F			11/23/15 11:47	1
Ground Water Elevation	**511.91**				ft			11/23/15 11:47	1
Specific Conductance	**991**				umhos/cm			11/23/15 11:47	1
Well bottom elevation	**453.08**				ft			11/23/15 11:47	1

Client Sample ID: G47S
Date Collected: 11/23/15 13:50
Date Received: 11/24/15 07:15

Lab Sample ID: 500-104284-11
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.036**		0.010		mg/L		11/24/15 17:00	11/25/15 13:28	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 21:41	1
Arsenic	**0.018**		0.0010		mg/L		11/24/15 17:00	12/01/15 21:41	1
Barium	**0.018**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:41	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 21:41	1
Boron	**4.6**		0.50		mg/L		11/24/15 17:00	12/02/15 12:17	10
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:41	1
Calcium	**11**		0.20		mg/L		11/24/15 17:00	12/01/15 21:41	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 21:41	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 21:41	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 21:41	1
Molybdenum	**0.32**		0.0050		mg/L		11/24/15 17:00	12/01/15 21:41	1
Selenium	**0.0030**		0.0025		mg/L		11/24/15 17:00	12/01/15 21:41	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 21:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 12:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**700**		10		mg/L			11/25/15 08:40	1
Chloride	**160**		10		mg/L			12/01/15 12:43	5
Fluoride	**0.45**		0.10		mg/L			11/25/15 14:08	1
Sulfate	**480**		100		mg/L			12/03/15 11:34	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**99.44**				ft			11/23/15 13:50	1
Depth to water from land surface	**96.94**				ft			11/23/15 13:50	1
Elevation of well (ft from MP)	**612.32**				ft			11/23/15 13:50	1
Field pH	**9.22**				SU			11/23/15 13:50	1
Field Temperature	**52.9**				Degrees F			11/23/15 13:50	1
Ground Water Elevation	**512.88**				ft			11/23/15 13:50	1
Specific Conductance	**1376**				umhos/cm			11/23/15 13:50	1
Well bottom elevation	**459.84**				ft			11/23/15 13:50	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 314078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total Recoverable	GW	3005A	
500-104284-2	R32S	Total Recoverable	GW	3005A	
500-104284-3	G20S	Total Recoverable	GW	3005A	
500-104284-4	DUP	Total Recoverable	Water	3005A	
500-104284-5	G30S	Total Recoverable	GW	3005A	
500-104284-6	G44S	Total Recoverable	GW	3005A	
500-104284-7	G45S	Total Recoverable	GW	3005A	
500-104284-8	G48S	Total Recoverable	GW	3005A	
500-104284-9	G46S	Total Recoverable	GW	3005A	
500-104284-10	R08S	Total Recoverable	Water	3005A	
500-104284-11	G47S	Total Recoverable	GW	3005A	
LCS 500-314078/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 500-314078/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 314212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total Recoverable	GW	6010C	314078
500-104284-2	R32S	Total Recoverable	GW	6010C	314078
500-104284-3	G20S	Total Recoverable	GW	6010C	314078
500-104284-4	DUP	Total Recoverable	Water	6010C	314078
500-104284-5	G30S	Total Recoverable	GW	6010C	314078
500-104284-6	G44S	Total Recoverable	GW	6010C	314078
500-104284-7	G45S	Total Recoverable	GW	6010C	314078
500-104284-8	G48S	Total Recoverable	GW	6010C	314078
500-104284-9	G46S	Total Recoverable	GW	6010C	314078
500-104284-10	R08S	Total Recoverable	Water	6010C	314078
500-104284-11	G47S	Total Recoverable	GW	6010C	314078
LCS 500-314078/2-A	Lab Control Sample	Total Recoverable	Water	6010C	314078
MB 500-314078/1-A	Method Blank	Total Recoverable	Water	6010C	314078

Prep Batch: 314334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	7470A	
500-104284-2	R32S	Total/NA	GW	7470A	
500-104284-3	G20S	Total/NA	GW	7470A	
500-104284-4	DUP	Total/NA	Water	7470A	
500-104284-5	G30S	Total/NA	GW	7470A	
500-104284-6	G44S	Total/NA	GW	7470A	
500-104284-7	G45S	Total/NA	GW	7470A	
500-104284-8	G48S	Total/NA	GW	7470A	
500-104284-9	G46S	Total/NA	GW	7470A	
500-104284-10	R08S	Total/NA	Water	7470A	
500-104284-11	G47S	Total/NA	GW	7470A	
LCS 500-314334/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-314334/12-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 314517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	7470A	314334
500-104284-2	R32S	Total/NA	GW	7470A	314334
500-104284-3	G20S	Total/NA	GW	7470A	314334

Metals (Continued)

Analysis Batch: 314517 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-4	DUP	Total/NA	Water	7470A	314334
500-104284-5	G30S	Total/NA	GW	7470A	314334
500-104284-6	G44S	Total/NA	GW	7470A	314334
500-104284-7	G45S	Total/NA	GW	7470A	314334
500-104284-8	G48S	Total/NA	GW	7470A	314334
500-104284-9	G46S	Total/NA	GW	7470A	314334
500-104284-10	R08S	Total/NA	Water	7470A	314334
500-104284-11	G47S	Total/NA	GW	7470A	314334
LCS 500-314334/13-A	Lab Control Sample	Total/NA	Water	7470A	314334
MB 500-314334/12-A	Method Blank	Total/NA	Water	7470A	314334

Analysis Batch: 314797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total Recoverable	GW	6020A	314078
500-104284-2	R32S	Total Recoverable	GW	6020A	314078
500-104284-3	G20S	Total Recoverable	GW	6020A	314078
500-104284-4	DUP	Total Recoverable	Water	6020A	314078
500-104284-5	G30S	Total Recoverable	GW	6020A	314078
500-104284-6	G44S	Total Recoverable	GW	6020A	314078
500-104284-7	G45S	Total Recoverable	GW	6020A	314078
500-104284-8	G48S	Total Recoverable	GW	6020A	314078
500-104284-9	G46S	Total Recoverable	GW	6020A	314078
500-104284-10	R08S	Total Recoverable	Water	6020A	314078
500-104284-11	G47S	Total Recoverable	GW	6020A	314078
LCS 500-314078/2-A	Lab Control Sample	Total Recoverable	Water	6020A	314078
MB 500-314078/1-A	Method Blank	Total Recoverable	Water	6020A	314078

Analysis Batch: 314852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-5	G30S	Total Recoverable	GW	6020A	314078
500-104284-6	G44S	Total Recoverable	GW	6020A	314078
500-104284-7	G45S	Total Recoverable	GW	6020A	314078
500-104284-8	G48S	Total Recoverable	GW	6020A	314078
500-104284-9	G46S	Total Recoverable	GW	6020A	314078
500-104284-10	R08S	Total Recoverable	Water	6020A	314078
500-104284-11	G47S	Total Recoverable	GW	6020A	314078

General Chemistry

Analysis Batch: 313466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	SM 2540C	
500-104284-1 DU	T03S	Total/NA	GW	SM 2540C	
500-104284-2	R32S	Total/NA	GW	SM 2540C	
500-104284-3	G20S	Total/NA	GW	SM 2540C	
500-104284-4	DUP	Total/NA	Water	SM 2540C	
LCS 500-313466/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-313466/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 313598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-5	G30S	Total/NA	GW	SM 2540C	
500-104284-6	G44S	Total/NA	GW	SM 2540C	
500-104284-7	G45S	Total/NA	GW	SM 2540C	
500-104284-8	G48S	Total/NA	GW	SM 2540C	
LCS 500-313598/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-313598/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 313599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	SM 4500 F C	
500-104284-2	R32S	Total/NA	GW	SM 4500 F C	
500-104284-3	G20S	Total/NA	GW	SM 4500 F C	
500-104284-4	DUP	Total/NA	Water	SM 4500 F C	
500-104284-5	G30S	Total/NA	GW	SM 4500 F C	
500-104284-6	G44S	Total/NA	GW	SM 4500 F C	
500-104284-7	G45S	Total/NA	GW	SM 4500 F C	
500-104284-8	G48S	Total/NA	GW	SM 4500 F C	
LCS 500-313599/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 500-313599/31	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 314089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-9	G46S	Total/NA	GW	SM 2540C	
500-104284-10	R08S	Total/NA	Water	SM 2540C	
500-104284-11	G47S	Total/NA	GW	SM 2540C	
LCS 500-314089/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-314089/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 314234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-9	G46S	Total/NA	GW	SM 4500 F C	
500-104284-10	R08S	Total/NA	Water	SM 4500 F C	
500-104284-11	G47S	Total/NA	GW	SM 4500 F C	
LCS 500-314234/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 500-314234/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 314671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	SM 4500 Cl- E	
500-104284-2	R32S	Total/NA	GW	SM 4500 Cl- E	
500-104284-3	G20S	Total/NA	GW	SM 4500 Cl- E	
500-104284-4	DUP	Total/NA	Water	SM 4500 Cl- E	
500-104284-5	G30S	Total/NA	GW	SM 4500 Cl- E	
500-104284-6	G44S	Total/NA	GW	SM 4500 Cl- E	
500-104284-7	G45S	Total/NA	GW	SM 4500 Cl- E	
500-104284-8	G48S	Total/NA	GW	SM 4500 Cl- E	
500-104284-9	G46S	Total/NA	GW	SM 4500 Cl- E	
500-104284-10	R08S	Total/NA	Water	SM 4500 Cl- E	
500-104284-11	G47S	Total/NA	GW	SM 4500 Cl- E	
LCS 500-314671/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 500-314671/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 315025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	SM 4500 SO4 E	
500-104284-2	R32S	Total/NA	GW	SM 4500 SO4 E	
500-104284-3	G20S	Total/NA	GW	SM 4500 SO4 E	
500-104284-4	DUP	Total/NA	Water	SM 4500 SO4 E	
500-104284-5	G30S	Total/NA	GW	SM 4500 SO4 E	
500-104284-6	G44S	Total/NA	GW	SM 4500 SO4 E	
500-104284-7	G45S	Total/NA	GW	SM 4500 SO4 E	
500-104284-8	G48S	Total/NA	GW	SM 4500 SO4 E	
500-104284-9	G46S	Total/NA	GW	SM 4500 SO4 E	
500-104284-10	R08S	Total/NA	Water	SM 4500 SO4 E	
500-104284-11	G47S	Total/NA	GW	SM 4500 SO4 E	
LCS 500-315025/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 500-315025/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 313920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	Field Sampling	
500-104284-2	R32S	Total/NA	GW	Field Sampling	
500-104284-3	G20S	Total/NA	GW	Field Sampling	
500-104284-4	DUP	Total/NA	Water	Field Sampling	
500-104284-5	G30S	Total/NA	GW	Field Sampling	
500-104284-6	G44S	Total/NA	GW	Field Sampling	
500-104284-7	G45S	Total/NA	GW	Field Sampling	
500-104284-8	G48S	Total/NA	GW	Field Sampling	
500-104284-9	G46S	Total/NA	GW	Field Sampling	
500-104284-10	R08S	Total/NA	Water	Field Sampling	
500-104284-11	G47S	Total/NA	GW	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-314078/1-A
Matrix: Water
Analysis Batch: 314212

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 314078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/24/15 17:00	11/25/15 12:28	1

Lab Sample ID: LCS 500-314078/2-A
Matrix: Water
Analysis Batch: 314212

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 314078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.498		mg/L		100	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-314078/1-A
Matrix: Water
Analysis Batch: 314797

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 314078

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/24/15 17:00	12/01/15 19:53	1
Arsenic	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 19:53	1
Barium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 19:53	1
Beryllium	<0.0010	^	0.0010		mg/L		11/24/15 17:00	12/01/15 19:53	1
Boron	<0.050		0.050		mg/L		11/24/15 17:00	12/01/15 19:53	1
Cadmium	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 19:53	1
Calcium	<0.20		0.20		mg/L		11/24/15 17:00	12/01/15 19:53	1
Chromium	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 19:53	1
Cobalt	<0.0010		0.0010		mg/L		11/24/15 17:00	12/01/15 19:53	1
Lead	<0.00050		0.00050		mg/L		11/24/15 17:00	12/01/15 19:53	1
Molybdenum	<0.0050		0.0050		mg/L		11/24/15 17:00	12/01/15 19:53	1
Selenium	<0.0025		0.0025		mg/L		11/24/15 17:00	12/01/15 19:53	1
Thallium	<0.0020		0.0020		mg/L		11/24/15 17:00	12/01/15 19:53	1

Lab Sample ID: LCS 500-314078/2-A
Matrix: Water
Analysis Batch: 314797

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 314078

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.525		mg/L		105	80 - 120
Arsenic	0.100	0.0989		mg/L		99	80 - 120
Barium	2.00	2.05		mg/L		103	80 - 120
Beryllium	0.0500	0.0510	^	mg/L		102	80 - 120
Boron	1.00	0.991		mg/L		99	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	10.0	11.8		mg/L		118	80 - 120
Chromium	0.200	0.215		mg/L		108	80 - 120
Cobalt	0.500	0.533		mg/L		107	80 - 120
Lead	0.100	0.114		mg/L		114	80 - 120
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120
Thallium	0.100	0.118		mg/L		118	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-314334/12-A
Matrix: Water
Analysis Batch: 314517

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 314334

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/27/15 13:15	11/30/15 11:24	1

Lab Sample ID: LCS 500-314334/13-A
Matrix: Water
Analysis Batch: 314517

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 314334

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00208		mg/L		104	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-313466/1
Matrix: Water
Analysis Batch: 313466

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/21/15 00:03	1

Lab Sample ID: LCS 500-313466/2
Matrix: Water
Analysis Batch: 313466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	298		mg/L		119	80 - 120

Lab Sample ID: 500-104284-1 DU
Matrix: GW
Analysis Batch: 313466

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	710		714		mg/L		0	5

Lab Sample ID: MB 500-313598/1
Matrix: Water
Analysis Batch: 313598

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/22/15 02:30	1

Lab Sample ID: LCS 500-313598/2
Matrix: Water
Analysis Batch: 313598

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	298		mg/L		119	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 500-314089/1
Matrix: Water
Analysis Batch: 314089

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/25/15 08:00	1

Lab Sample ID: LCS 500-314089/2
Matrix: Water
Analysis Batch: 314089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	296		mg/L		118	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-314671/12
Matrix: Water
Analysis Batch: 314671

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/01/15 11:57	1

Lab Sample ID: LCS 500-314671/13
Matrix: Water
Analysis Batch: 314671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.2		mg/L		102	80 - 120

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-313599/31
Matrix: Water
Analysis Batch: 313599

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/21/15 18:20	1

Lab Sample ID: LCS 500-313599/32
Matrix: Water
Analysis Batch: 313599

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: MB 500-314234/3
Matrix: Water
Analysis Batch: 314234

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/25/15 13:19	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-314234/4
Matrix: Water
Analysis Batch: 314234

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	9.90		mg/L		99	80 - 120

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-315025/3
Matrix: Water
Analysis Batch: 315025

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/03/15 11:20	1

Lab Sample ID: LCS 500-315025/4
Matrix: Water
Analysis Batch: 315025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.4		mg/L		102	80 - 120

TestAmerica

THE LEADER IN ENVIRONMEN

2417 Bond Street, University Park,
Phone: 708.534.5200 Fax: 70

500-104284 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page 1 of 2

Temperature °C of Cooler:

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4Q15 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noc L., Andrew N.
Lab PM: Bonnie Stadelmann

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
1		TO3S	11/19/15	0959	3	W		1	1	1						
2		R32S	11/19/15	1139	3	W		1	1	1						
3		G20S	11/19/15	1340	3	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	11/19/15	1730		TA	11-20-15	0626
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-104284 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page 2 of 2

Temperature °C of Cooler:

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-4815 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Joe L., Andrew N.
Lab PM: Bonnie Stadelmann

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, Fl, SO4, TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS	Comments
4		DUP	11/19/15	1139	3	W	1	1	1	DUP taken from R325

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

DUP put on seperate COC per req.

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Joe L	TAL	11/19/15	1730	[signature]	TA-CHI	11/20/15	0624
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

12/9/2015

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5

500-104284 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.1

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-4Q15 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Nae L.; Andrew N.
Lab PM: Bonnie Stadelmann

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, Fl, SO4, TDS

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS	Comments
5		G305	11/20/15	0921	3	W	—	—	—	
6		G445	11/20/15	1154	3	W	—	—	—	
7		G455	11/20/15	1325	3	W	—	—	—	
8		G485	11/20/15	1425	3	W	—	—	—	

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	11/20/15	1605	[signature]	TA-CHI	11/20/15	1605
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-104284 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet # CCR - 4Q15 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Bonnie Stadelman

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, Fl, Sol. TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, Sol. TDS	Comments
9		G465	11/23/15	1010	3	W	✓	✓	✓	
10		~~A085~~ R085 11/25/15 JB	11/23/15	1147	3	W	✓	✓	✓	
11		G475	11/23/15	1350	3	W	✓	✓	✓	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	YHC	11/23/15	1525	[signature]	TA-CHI	11/24/15	0715
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

12/9/2015

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stadelmann, Bonnie M	Carrier Tracking No(s):	COC No: 500-67595.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: bonnie.stadelmann@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-104284-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/22/2015			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226_Ra228	904.0/PrecSep_0 Standard Target List	903.0/PrecSep_21 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T03S (500-104284-1)	11/19/15	09:59 Central		Water			X	X	X	1	B
R32S (500-104284-2)	11/19/15	11:39 Central		Water			X	X	X	1	
G20S (500-104284-3)	11/19/15	13:40 Central		Water			X	X	X	1	
DUP (500-104284-4)	11/19/15	11:39 Central		Water			X	X	X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11/20/15 1700	TAL	[signature] Clark	11-21-15 0815	TASR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

12/9/2015

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stadelmann, Bonnie M	Carrier Tracking No(s):	COC No: 500-67595.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: bonnie.stadelmann@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-104284-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/14/2015			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226_Ra228	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G30S (500-104284-5)	11/20/15	09:21 Central		Water			X	X	X	1	B
G44S (500-104284-6)	11/20/15	11:54 Central		Water			X	X	X	1	
G45 (500-104284-7)	11/20/15	13:25 Central		Water			X	X	X	1	
G48S (500-104284-8)	11/20/15	14:25 Central		Water			X	X	X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11/20/15 1700	TAL	[signature]	11.21.15 0815	TA SR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-104284-1

Login Number: 104284
List Number: 1
Creator: James, Jeff A

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,2.1,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-1

Client Sample ID: T03S
Date Collected: 11/19/15 09:59
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-1
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 12:36	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 20:53	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 11:50	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313466	11/21/15 02:21	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	314671	12/01/15 12:09	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 18:53	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	315025		CLB	TAL CHI
					(Start)	12/03/15 11:22		
					(End)	12/03/15 11:23		
Total/NA	Analysis	Field Sampling		1	313920	11/19/15 09:59	JVB	TAL CHI

Client Sample ID: R32S
Date Collected: 11/19/15 11:39
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-2
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 12:40	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 20:56	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 11:52	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313466	11/21/15 02:36	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		2	314671	12/01/15 12:38	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 18:56	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	315025		CLB	TAL CHI
					(Start)	12/03/15 11:23		
					(End)	12/03/15 11:24		
Total/NA	Analysis	Field Sampling		1	313920	11/19/15 11:39	JVB	TAL CHI

Client Sample ID: G20S
Date Collected: 11/19/15 13:40
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-3
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 12:45	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:00	BJH	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-1

Client Sample ID: G20S

Lab Sample ID: 500-104284-3

Date Collected: 11/19/15 13:40
Matrix: GW
Date Received: 11/20/15 06:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 11:54	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313466	11/21/15 02:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	314671	12/01/15 12:10	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 18:58	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	315025		CLB	TAL CHI
					(Start)	12/03/15 11:24		
					(End)	12/03/15 11:25		
Total/NA	Analysis	Field Sampling		1	313920	11/19/15 13:40	JVB	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-104284-4

Date Collected: 11/19/15 11:39
Matrix: Water
Date Received: 11/20/15 06:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 12:49	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:04	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 11:56	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313466	11/21/15 02:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		2	314671	12/01/15 12:38	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 19:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	315025		CLB	TAL CHI
					(Start)	12/03/15 11:25		
					(End)	12/03/15 11:26		
Total/NA	Analysis	Field Sampling		1	313920	11/19/15 11:39	JVB	TAL CHI

Client Sample ID: G30S

Lab Sample ID: 500-104284-5

Date Collected: 11/20/15 09:21
Matrix: GW
Date Received: 11/20/15 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 12:53	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		10	314852	12/02/15 11:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:19	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 11:58	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313598	11/22/15 02:55	CLB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		5	314671	12/01/15 12:39	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 19:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	315025		CLB	TAL CHI
					(Start)	12/03/15 11:26		
					(End)	12/03/15 11:27		
Total/NA	Analysis	Field Sampling		1	313920	11/20/15 09:21	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-104284-6

Date Collected: 11/20/15 11:54

Matrix: GW

Date Received: 11/20/15 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 13:06	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314852	12/02/15 11:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:23	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 11:59	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313598	11/22/15 02:57	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	314671	12/01/15 12:12	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 19:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	315025		CLB	TAL CHI
					(Start)	12/03/15 11:27		
					(End)	12/03/15 11:28		
Total/NA	Analysis	Field Sampling		1	313920	11/20/15 11:54	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-104284-7

Date Collected: 11/20/15 13:25

Matrix: GW

Date Received: 11/20/15 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 13:11	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314852	12/02/15 12:02	FXG	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:26	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 12:01	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313598	11/22/15 03:00	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	314671	12/01/15 12:39	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 19:16	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	315025		CLB	TAL CHI
					(Start)	12/03/15 11:28		
					(End)	12/03/15 11:29		

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-1

Client Sample ID: G45S

Lab Sample ID: 500-104284-7

Date Collected: 11/20/15 13:25
Matrix: GW
Date Received: 11/20/15 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	313920	11/20/15 13:25	JVB	TAL CHI

Client Sample ID: G48S

Lab Sample ID: 500-104284-8

Date Collected: 11/20/15 14:25
Matrix: GW
Date Received: 11/20/15 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 13:15	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		10	314852	12/02/15 12:05	FXG	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:30	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 12:03	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	313598	11/22/15 03:02	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	314671	12/01/15 12:41	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	313599	11/21/15 19:18	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	315025		CLB	TAL CHI
					(Start)	12/03/15 11:29		
					(End)	12/03/15 11:30		
Total/NA	Analysis	Field Sampling		1	313920	11/20/15 14:25	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-104284-9

Date Collected: 11/23/15 10:10
Matrix: GW
Date Received: 11/24/15 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 13:20	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		10	314852	12/02/15 12:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:34	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 12:09	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	314089	11/25/15 08:35	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		2	314671	12/01/15 12:42	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	314234	11/25/15 14:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	315025		CLB	TAL CHI
					(Start)	12/03/15 11:32		
					(End)	12/03/15 11:33		
Total/NA	Analysis	Field Sampling		1	313920	11/23/15 10:10	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-104284-10

Date Collected: 11/23/15 11:47

Matrix: Water

Date Received: 11/24/15 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 13:24	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		10	314852	12/02/15 12:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:38	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 12:11	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	314089	11/25/15 08:37	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		2	314671	12/01/15 12:42	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	314234	11/25/15 14:04	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	315025		CLB	TAL CHI
					(Start)	12/03/15 11:33		
					(End)	12/03/15 11:34		
Total/NA	Analysis	Field Sampling		1	313920	11/23/15 11:47	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-104284-11

Date Collected: 11/23/15 13:50

Matrix: GW

Date Received: 11/24/15 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6010C		1	314212	11/25/15 13:28	KML	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		10	314852	12/02/15 12:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			314078	11/24/15 17:00	PJH	TAL CHI
Total Recoverable	Analysis	6020A		1	314797	12/01/15 21:41	BJH	TAL CHI
Total/NA	Prep	7470A			314334	11/27/15 13:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	314517	11/30/15 12:13	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	314089	11/25/15 08:40	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	314671	12/01/15 12:43	CCK	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	314234	11/25/15 14:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	315025		CLB	TAL CHI
					(Start)	12/03/15 11:34		
					(End)	12/03/15 11:35		
Total/NA	Analysis	Field Sampling		1	313920	11/23/15 13:50	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/19/15 Start Purge: 0945 (2400 Hr. Clock) End Purge: 0959

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.65 (ft./msl)

Water Level 136.30 (ft.)

Ground Water Elev. 493.35 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.08	7.07	7.07	(std.)
SC	1,003	1,007	1,007	(umhos/cm)
Temp.	8.82	8.84	8.84	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 42°F, Sunny, Winds @ 15-20 mph

Other: *Reference Measurement

Depth To Water from L.S. = 136.30 - 3.08 = 133.22 (ft)

Levels were taken on 11/19/15 @ 0940.

* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/19/15 Start Purge: 1125 (2400 Hr. Clock) End Purge: 1139

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.26

MEASUREMENTS

		1st	2nd	Final	
Well Diameter	2.0 (inches)				
Stick Up	2.03 (ft)	pH	7.32	7.32	7.32 (std.)
Ref. Measuring Pt.	TIC	SC	739	745	745 (umhos/cm)
Well Elevation	*536.81 (ft./msl)	Temp.	10.98	11.02	11.02 (°C)
Water Level	19.99 (ft.)				
Ground Water Elev.	516.82 (ft./msl)				
Well Bottom Elevation	*457.84 (ft./msl)				

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor

Weather Conditions: 43° F, Sunny, W wind 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 19.99 - 2.03 = 17.96 (ft.)

Levels were taken on 11/19/15 @ 1120.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284.3

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/19/15 Start Purge: 1320 (2400 Hr. Clock) End Purge: 1340

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 55.33 (ft.)
Ground Water Elev. 525.00 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.70	7.73	7.73	(std.)
SC	619	621	621	(umhos/cm)
Temp.	13.82	14.08	14.08	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 44°F, Partly Cloudy / Windy, SW winds @ 20-25mph

Other: *Reference Measurement
Depth To Water from L.S. = 55.33 - 2.78 = 52.55 (ft.)
Levels were taken on 11/19/15 @ 1315.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: DUP
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/19/15 Start Purge: 1125 (2400 Hr. Clock) End Purge: 1139

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.26

MEASUREMENTS

		1st	2nd	Final	
Well Diameter	2.0 (inches)				
Stick Up	2.03 (ft)	pH	7.32	7.32	7.32 (std.)
Ref. Measuring Pt.	TIC	SC	739	745	745 (umhos/cm)
Well Elevation	*536.81 (ft./msl)	Temp.	10.98	11.02	11.02 (°C)
Water Level	19.99 (ft.)				
Ground Water Elev.	516.82 (ft./msl)				
Well Bottom Elevation	*457.84 (ft./msl)				

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor

Weather Conditions: 43°F, Sunny, W winds @ 10-15 mph

Other: *Reference Measurement (Updated 11/19/15 Dup of R32S)

Depth To Water from L.S. = 19.99 - 2.03 = 17.96 (Ft.)

Levels were taken on 11/19/15 @ 1126

Sampler Name (Print): Nae Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-5

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/20/15 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0921

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.21

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.31 (ft)

Ref. Measuring Pt. TIC

Well Elevation *524.40 (ft./msl)

Water Level 2.74 (ft.)

Ground Water Elev. 521.66 (ft./msl)

Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.37	7.46	7.46	(std.)
SC	1490	1500	1500	(umhos/cm)
Temp.	8.93	8.69	8.69	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 40°F, Sunny, Winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 2.74 - 2.31 = 0.43 (ft.)

Levels were taken on 11/20/15 @ 0855.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-6

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/20/15 Start Purge: 1140 (2400 Hr. Clock) End Purge: 1154

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 045

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.54 (ft.)
Ground Water Elev. 506.15 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final
pH	7.11	7.11	7.11 (std.)
SC	918	923	923 (umhos/cm)
Temp.	10.87	10.75	10.75 (°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 42°F, Cloudy, SW winds 5-10 mph
Other: *Reference Measurement
Depth To Water from L.S. = 80.54-2.18 = 78.36 (ft.)
Levels were taken on 11/20/15 @ 1130.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/20 Start Purge: 1305 (2400 Hr. Clock) End Purge: 1325

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.29

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 68.90 (ft.)
Ground Water Elev. 534.41 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final
pH	7.21	7.20	7.20 (std.)
SC	1234	1237	1237 (umhos/cm)
Temp.	12.38	12.35	12.35 (°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 41°F, Cloudy, SW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 68.90 - 2.97 = 65.93 (ft.)
Levels were taken on 11/20/15 @ 1300.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-8

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/20/15 Start Purge: 1405 (2400 Hr. Clock) End Purge: 1425

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 106.83 (ft.)
Ground Water Elev. 513.94 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.06	9.08	9.08	(std.)
SC	1,590	1,590	1,590	(umhos/cm)
Temp.	11.31	11.20	11.20	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 40°F, Cloudy, W windsc 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 106.83 - 2.45 = 104.38 (ft.)
Levels were taken on 11/20/15 @ 1400.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/23/15 Start Purge: 0950 (2400 Hr. Clock) End Purge: 1010

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.70 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.32 (ft./msl)
Water Level 95.78 (ft.)
Ground Water Elev. 505.54 (ft./msl)
Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.24	7.32	7.32	(std.)
SC	1,130	1131	1,131	(umhos/cm)
Temp.	10.48	10.22	10.22	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 32°F, Partly Cloudy, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 95.78 - 2.70 = 93.08 (ft.)
Levels were taken on 11/23/15 @ 0940.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: ~~A08S~~ R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/23/15 Start Purge: 1130 (2400 Hr. Clock) End Purge: 1147

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.10

MEASUREMENTS

		1st	2nd	Final	
Well Diameter	2.0 (inches)				
Stick Up	2.55 (ft)	pH	7.80	7.80	7.80 (std.)
Ref. Measuring Pt.	TIC	SC	996	991	991 (umhos/cm)
Well Elevation	*578.65 (ft./msl)	Temp.	11.36	11.38	11.38 (°C)
Water Level	66.74 (ft.)				
Ground Water Elev.	511.91 (ft./msl)				
Well Bottom Elevation	*453.08 (ft./msl)				

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 35°F, Cloudy, SW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 66.74 - 2.55 = 64.19 (ft)
Levels were taken on 11/23/15 @ 1120.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-104284-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/23/15 Start Purge: 1330 (2400 Hr. Clock) End Purge: 1350

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 99.44 (ft.)
Ground Water Elev. 512.88 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.20	9.22	9.22	(std.)
SC	1,375	1,376	1,376	(umhos/cm)
Temp.	11.75	11.57	11.57	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 38°F, Cloudy, SW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 99.44 - 2.50 = 96.94 (ft.)
Levels were taken on 11/23/15 @ 1320.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-104284-2
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Therese Hargraves

Authorized for release by:
12/28/2015 12:36:16 PM
Therese Hargraves, Project Manager I
therese.hargraves@testamericainc.com

Designee for

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-104284-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-104284-2

Comments
No additional comments.

Receipt
The samples were received on 11/20/2015 6:26 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.1º C, 2.6º C and 3.2º C.

RAD
Method(s) 904.0, 9320: Radium-228 Prep Batch 160-224389:
The radium-228 detection goal was not met for the following samples due to the reduced sample volume attributed to the presence of matrix interferences (see prep NCM 74156 and 74157): R32S (500-104284-2) and (160-15039-O-3-E DU). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep-21, PrecSep_0: Radium-226 Prep Batch 160-224714 and Radium-228 Prep Batch 160-224720:
The following samples were prepared at a reduced aliquot: G46S (500-104284-9). Sample 500-104284-9 was in a 1L bottle with less than 1L of sample provided. Samples 160-15065-2 and 160-15065-2 DU were reduced to allow for batch duplicity.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-224389:
The following samples were prepared at a reduced aliquot due to limited sample volume available: T03S (500-104284-1), G20S (500-104284-3), G44S (500-104284-6) and G45S (500-104284-7). Lot 500-104284 was sent in bottles labeled 1 L but contained less than 1000 mL.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-224389:
The following samples were prepared at a reduced aliquot due to cloudiness and discoloration: R32S (500-104284-2), DUP (500-104284-4), G30S (500-104284-5) and G48S (500-104284-8).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-224384:
The following samples were prepared at a reduced aliquot due to limited sample volume available: T03S (500-104284-1), G20S (500-104284-3), G44S (500-104284-6) and G45S (500-104284-7). Lot 500-104284 was sent in bottles labeled 1 L but contained less than 1000 mL.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-224384:
The following samples were prepared at a reduced aliquot due to cloudiness and discoloration: R32S (500-104284-2), DUP (500-104284-4), G30S (500-104284-5) and G48S (500-104284-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-104284-1	T03S	GW	11/19/15 09:59	11/20/15 06:26
500-104284-2	R32S	GW	11/19/15 11:39	11/20/15 06:26
500-104284-3	G20S	GW	11/19/15 13:40	11/20/15 06:26
500-104284-4	DUP	Water	11/19/15 11:39	11/20/15 06:26
500-104284-5	G30S	GW	11/20/15 09:21	11/20/15 16:05
500-104284-6	G44S	GW	11/20/15 11:54	11/20/15 16:05
500-104284-7	G45S	GW	11/20/15 13:25	11/20/15 16:05
500-104284-8	G48S	GW	11/20/15 14:25	11/20/15 16:05
500-104284-9	G46S	GW	11/23/15 10:10	11/24/15 07:15
500-104284-10	R08S	Water	11/23/15 11:47	11/24/15 07:15
500-104284-11	G47S	GW	11/23/15 13:50	11/24/15 07:15

Client Sample ID: T03S

Date Collected: 11/19/15 09:59
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-1

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.675**		0.113	0.128	0.0653	pCi/L	11/27/15 09:00	12/22/15 14:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:50*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.426	U	0.323	0.325	0.511	pCi/L	11/27/15 09:49	12/03/15 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*
Y Carrier	*92.0*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.101**		0.342	0.349	0.511	pCi/L		12/23/15 20:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: R32S
Date Collected: 11/19/15 11:39
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-2
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.32		0.221	0.251	0.133	pCi/L	11/27/15 09:00	12/22/15 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.0*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.608	U G	0.644	0.646	1.05	pCi/L	11/27/15 09:49	12/03/15 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.0*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*
Y Carrier	*84.1*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.928		0.681	0.693	1.050	pCi/L		12/23/15 20:50	1

Client Sample ID: G20S

Date Collected: 11/19/15 13:40
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-3

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.47		0.167	0.213	0.0710	pCi/L	11/27/15 09:00	12/22/15 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.7*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.608		0.327	0.331	0.489	pCi/L	11/27/15 09:49	12/03/15 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.7*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*
Y Carrier	*91.2*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.078		0.367	0.394	0.489	pCi/L		12/23/15 20:50	1

Client Sample ID: DUP

Date Collected: 11/19/15 11:39
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.37**		0.225	0.257	0.119	pCi/L	11/27/15 09:00	12/22/15 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.3*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0382	U	0.542	0.542	0.979	pCi/L	11/27/15 09:49	12/03/15 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.3*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*
Y Carrier	*89.7*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.332**		0.587	0.600	0.979	pCi/L		12/23/15 20:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: G30S
Date Collected: 11/20/15 09:21
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-5
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.946**		0.199	0.216	0.175	pCi/L	11/27/15 09:00	12/22/15 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.5*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.538	U	0.582	0.584	0.953	pCi/L	11/27/15 09:49	12/03/15 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.5*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*
Y Carrier	*87.1*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.484**		0.615	0.623	0.953	pCi/L		12/23/15 20:50	1

Client Sample ID: G44S

Date Collected: 11/20/15 11:54
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-6

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.523		0.108	0.118	0.103	pCi/L	11/27/15 09:00	12/22/15 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.0*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.638		0.335	0.340	0.501	pCi/L	11/27/15 09:49	12/03/15 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.0*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*
Y Carrier	*88.6*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.161		0.352	0.360	0.501	pCi/L		12/23/15 20:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: G45S
Date Collected: 11/20/15 13:25
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-7
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.57		0.169	0.220	0.0684	pCi/L	11/27/15 09:00	12/22/15 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.6*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.190	U	0.239	0.240	0.397	pCi/L	11/27/15 09:49	12/03/15 19:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.6*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:09*	*1*
Y Carrier	*93.5*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.760		0.293	0.326	0.397	pCi/L		12/23/15 20:50	1

Client Sample ID: G48S

Date Collected: 11/20/15 14:25
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-8

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.777**		0.171	0.184	0.114	pCi/L	11/27/15 09:00	12/22/15 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.6*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0742	U	0.413	0.413	0.743	pCi/L	11/27/15 09:49	12/03/15 19:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.6*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:09*	*1*
Y Carrier	*89.0*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.8512**		0.447	0.452	0.743	pCi/L		12/23/15 20:50	1

Client Sample ID: G46S

Date Collected: 11/23/15 10:10
Date Received: 11/24/15 07:15

Lab Sample ID: 500-104284-9

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.977		0.171	0.193	0.139	pCi/L	11/30/15 14:03	12/22/15 08:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*11/30/15 14:03*	*12/22/15 08:09*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.491		0.277	0.281	0.418	pCi/L	11/30/15 14:34	12/17/15 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:53*	*1*
Y Carrier	*89.0*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.468		0.326	0.341	0.418	pCi/L		12/23/15 20:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: R08S
Date Collected: 11/23/15 11:47
Date Received: 11/24/15 07:15

Lab Sample ID: 500-104284-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.811		0.145	0.162	0.0955	pCi/L	11/30/15 14:03	12/22/15 08:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.9*		*40 - 110*	*11/30/15 14:03*	*12/22/15 08:09*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.797		0.277	0.287	0.373	pCi/L	11/30/15 14:34	12/17/15 12:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.9*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:53*	*1*
Y Carrier	*89.7*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.608		0.313	0.330	0.373	pCi/L		12/23/15 20:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: G47S
Date Collected: 11/23/15 13:50
Date Received: 11/24/15 07:15

Lab Sample ID: 500-104284-11
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.559**		0.130	0.139	0.119	pCi/L	11/30/15 14:03	12/22/15 08:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*11/30/15 14:03*	*12/22/15 08:09*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.339	U	0.258	0.260	0.406	pCi/L	11/30/15 14:34	12/17/15 12:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.1*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:54*	*1*
Y Carrier	*88.6*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.898**		0.289	0.295	0.406	pCi/L		12/23/15 20:50	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
G	The Sample MDC is greater than the requested RL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 224384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	PrecSep-21	
500-104284-2	R32S	Total/NA	GW	PrecSep-21	
500-104284-3	G20S	Total/NA	GW	PrecSep-21	
500-104284-4	DUP	Total/NA	Water	PrecSep-21	
500-104284-5	G30S	Total/NA	GW	PrecSep-21	
500-104284-6	G44S	Total/NA	GW	PrecSep-21	
500-104284-7	G45S	Total/NA	GW	PrecSep-21	
500-104284-8	G48S	Total/NA	GW	PrecSep-21	
LCS 160-224384/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-224384/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 224389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-1	T03S	Total/NA	GW	PrecSep_0	
500-104284-2	R32S	Total/NA	GW	PrecSep_0	
500-104284-3	G20S	Total/NA	GW	PrecSep_0	
500-104284-4	DUP	Total/NA	Water	PrecSep_0	
500-104284-5	G30S	Total/NA	GW	PrecSep_0	
500-104284-6	G44S	Total/NA	GW	PrecSep_0	
500-104284-7	G45S	Total/NA	GW	PrecSep_0	
500-104284-8	G48S	Total/NA	GW	PrecSep_0	
LCS 160-224389/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-224389/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 224714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-9	G46S	Total/NA	GW	PrecSep-21	
500-104284-10	R08S	Total/NA	Water	PrecSep-21	
500-104284-11	G47S	Total/NA	GW	PrecSep-21	
LCS 160-224714/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-224714/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 224720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-104284-9	G46S	Total/NA	GW	PrecSep_0	
500-104284-10	R08S	Total/NA	Water	PrecSep_0	
500-104284-11	G47S	Total/NA	GW	PrecSep_0	
LCS 160-224720/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-224720/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-224384/1-A
Matrix: Water
Analysis Batch: 228946

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 224384

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07585		0.0467	0.0472	0.0648	pCi/L	11/27/15 09:00	12/22/15 14:50	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.9*		*40 - 110*	*11/27/15 09:00*	*12/22/15 14:50*	*1*

Lab Sample ID: LCS 160-224384/2-A
Matrix: Water
Analysis Batch: 228946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 224384

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	11.79		1.14		0.0650	pCi/L	106	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*40 - 110*

Lab Sample ID: MB 160-224714/1-A
Matrix: Water
Analysis Batch: 228951

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 224714

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03246	U	0.0646	0.0647	0.114	pCi/L	11/30/15 14:03	12/22/15 08:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.0*		*40 - 110*	*11/30/15 14:03*	*12/22/15 08:08*	*1*

Lab Sample ID: LCS 160-224714/2-A
Matrix: Water
Analysis Batch: 228951

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 224714

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	11.94		1.18		0.0949	pCi/L	107	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.7*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-224389/1-A
Matrix: Water
Analysis Batch: 225435

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 224389

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.09186	U	0.220	0.220	0.406	pCi/L	11/27/15 09:49	12/03/15 19:07	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.9*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:07*	*1*
Y Carrier	*96.8*		*40 - 110*	*11/27/15 09:49*	*12/03/15 19:07*	*1*

Lab Sample ID: LCS 160-224389/2-A
Matrix: Water
Analysis Batch: 225435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 224389

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Radium-228			3.20	3.232		0.520		0.390	pCi/L	101	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.5*		*40 - 110*
Y Carrier	*93.1*		*40 - 110*

Lab Sample ID: MB 160-224720/1-A
Matrix: Water
Analysis Batch: 227898

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 224720

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01727	U	0.232	0.232	0.416	pCi/L	11/30/15 14:34	12/17/15 12:52	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.0*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:52*	*1*
Y Carrier	*87.1*		*40 - 110*	*11/30/15 14:34*	*12/17/15 12:52*	*1*

Lab Sample ID: LCS 160-224720/2-A
Matrix: Water
Analysis Batch: 227898

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 224720

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)		MDC	Unit	%Rec	%Rec. Limits		
Radium-228			3.19	2.662		0.468		0.371	pCi/L	84	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.7*		*40 - 110*
Y Carrier	*77.8*		*40 - 110*

TestAmerica

THE LEADER IN ENVIRONMEN

2417 Bond Street, University Park,
Phone: 708.534.5200 Fax: 70

500-104284 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page 1 of 2

Temperature °C of Cooler:

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4Q15 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noc L., Andrew N.
Lab PM: Bonnie Stadelman

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
1		TO3S	11/19/15	0959	3	W		1	1	1						
2		R32S	11/19/15	1139	3	W		1	1	1						
3		G20S	11/19/15	1340	3	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	11/19/15	1730		TAL	11-20-15	0626
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

12/28/2015

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-104284 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page 2 of 2

Temperature °C of Cooler:

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-4815 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Joe L., Andrew N.
Lab PM: Bonnie Stadelmann

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, Fl, SO4, TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS	Comments
4		DUP	11/19/15	1139	3	W	1	1	1	DUP taken from R325

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

DUP put on seperate COC per req.

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Joe L	TAL	11/19/15	1730	[signature]	TA-CHI	11/20/15	0624
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5

500-104284 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.1

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-4Q15 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Nae L.; Andrew N.
Lab PM: Bonnie Stadelmann

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						Comments
5		G305	11/20/15	0921	3	W		1	1	1						
6		G445	11/20/15	1154	3	W		1	1	1						
7		G455	11/20/15	1325	3	W		1	1	1						
8		G485	11/20/15	1425	3	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	11/20/15	1605	[signature]	TA-CHI	11/20/15	1605
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-104284 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-104284

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet # CCR - 4Q15 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Bonnie Stadelman

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, Fl, Sol. TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, Sol. TDS	Comments
9		G465	11/23/15	1010	3	W	✓	✓	✓	
10		~~A085~~ R085 11/25/15 JB	11/23/15	1147	3	W	✓	✓	✓	
11		G475	11/23/15	1350	3	W	✓	✓	✓	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	YAC	11/23/15	1525	[signature]	TA-CHI	11/24/15	0715
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stadelmann, Bonnie M	Carrier Tracking No(s):	COC No: 500-67595.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: bonnie.stadelmann@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-104284-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/14/2015			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226_Ra228	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G30S (500-104284-5)	11/20/15	09:21 Central		Water			X	X	X	1	B
G44S (500-104284-6)	11/20/15	11:54 Central		Water			X	X	X	1	
G45 (500-104284-7)	11/20/15	13:25 Central		Water			X	X	X	1	
G48S (500-104284-8)	11/20/15	14:25 Central		Water			X	X	X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11/20/15 1700	TAL	[signature]	11.21.15 0815	TA SR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stadelmann, Bonnie M	Carrier Tracking No(s):	COC No: 500-67595.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: bonnie.stadelmann@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-104284-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/22/2015			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226_Ra228	904.0/PrecSep_0 Standard Target List	903.0/PrecSep_21 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T03S (500-104284-1)	11/19/15	09:59 Central		Water			X	X	X	1	B
R32S (500-104284-2)	11/19/15	11:39 Central		Water			X	X	X	1	
G20S (500-104284-3)	11/19/15	13:40 Central		Water			X	X	X	1	1
DUP (500-104284-4)	11/19/15	11:39 Central		Water			X	X	X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11/20/15 1700	TAL	[signature] Clark	11-21-15 0815	TASR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

12/28/2015

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stadelmann, Bonnie M	Carrier Tracking No(s):	COC No: 500-67685.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: bonnie.stadelmann@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-104284-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/3/2015			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226_Ra228	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G46 (500-104284-9)	11/23/15	10:10 Central		Water			X	X	X	1	
A08S (500-104284-10)	11/23/15	11:47 Central		Water			X	X	X	1	
G47S (500-104284-11)	11/23/15	13:50 Central		Water			X	X	X	1	

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/24/15 1500	Company TAL	Received by:	Date/Time: 11.25.15/0930	Company TAL	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

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12/28/2015

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-104284-2

Login Number: 104284
List Number: 1
Creator: James, Jeff A

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,2.1,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-104284-2

Login Number: 104284
List Number: 2
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 11/23/15 11:35 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-104284-2

Login Number: 104284
List Number: 3
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis
List Creation: 11/25/15 03:08 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: T03S
Date Collected: 11/19/15 09:59
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-1
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:50	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225435	12/03/15 19:08	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: R32S
Date Collected: 11/19/15 11:39
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-2
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:51	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225435	12/03/15 19:08	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: G20S
Date Collected: 11/19/15 13:40
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-3
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:51	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225435	12/03/15 19:08	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: DUP
Date Collected: 11/19/15 11:39
Date Received: 11/20/15 06:26

Lab Sample ID: 500-104284-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:51	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225435	12/03/15 19:08	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: G30S
Date Collected: 11/20/15 09:21
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-5
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:51	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225435	12/03/15 19:08	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: G44S
Date Collected: 11/20/15 11:54
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-6
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:51	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225435	12/03/15 19:08	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: G45S
Date Collected: 11/20/15 13:25
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-7
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:51	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225335	12/03/15 19:09	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: G48S
Date Collected: 11/20/15 14:25
Date Received: 11/20/15 16:05

Lab Sample ID: 500-104284-8
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224384	11/27/15 09:00	MMS	TAL SL
Total/NA	Analysis	903.0		1	228946	12/22/15 14:51	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224389	11/27/15 09:49	MMS	TAL SL
Total/NA	Analysis	904.0		1	225335	12/03/15 19:09	MFM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Client Sample ID: G46S

Lab Sample ID: 500-104284-9

Date Collected: 11/23/15 10:10
Matrix: GW
Date Received: 11/24/15 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224714	11/30/15 14:03	MMS	TAL SL
Total/NA	Analysis	903.0		1	228951	12/22/15 08:09	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224720	11/30/15 14:34	MMS	TAL SL
Total/NA	Analysis	904.0		1	227898	12/17/15 12:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: R08S

Lab Sample ID: 500-104284-10

Date Collected: 11/23/15 11:47
Matrix: Water
Date Received: 11/24/15 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224714	11/30/15 14:03	MMS	TAL SL
Total/NA	Analysis	903.0		1	228951	12/22/15 08:09	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224720	11/30/15 14:34	MMS	TAL SL
Total/NA	Analysis	904.0		1	227898	12/17/15 12:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Client Sample ID: G47S

Lab Sample ID: 500-104284-11

Date Collected: 11/23/15 13:50
Matrix: GW
Date Received: 11/24/15 07:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			224714	11/30/15 14:03	MMS	TAL SL
Total/NA	Analysis	903.0		1	228951	12/22/15 08:09	SMP	TAL SL
Total/NA	Prep	PrecSep_0			224720	11/30/15 14:34	MMS	TAL SL
Total/NA	Analysis	904.0		1	227898	12/17/15 12:54	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	229251	12/23/15 20:50	ALS	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-104284-1	T03S	83.8
500-104284-2	R32S	74.0
500-104284-3	G20S	71.7
500-104284-5	G30S	75.5
500-104284-6	G44S	74.0
500-104284-7	G45S	77.6
500-104284-8	G48S	72.6
500-104284-9	G46S	87.2
500-104284-11	G47S	78.1

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-104284-4	DUP	69.3
500-104284-10	R08S	81.9
LCS 160-224384/2-A	Lab Control Sample	88.5
LCS 160-224714/2-A	Lab Control Sample	92.7
MB 160-224384/1-A	Method Blank	87.9
MB 160-224714/1-A	Method Blank	72.0

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-104284-1	T03S	83.8	92.0
500-104284-2	R32S	74.0	84.1
500-104284-3	G20S	71.7	91.2
500-104284-5	G30S	75.5	87.1
500-104284-6	G44S	74.0	88.6
500-104284-7	G45S	77.6	93.5
500-104284-8	G48S	72.6	89.0
500-104284-9	G46S	87.2	89.0
500-104284-11	G47S	78.1	88.6

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-104284-2

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-104284-4	DUP	69.3	89.7
500-104284-10	R08S	81.9	89.7
LCS 160-224389/2-A	Lab Control Sample	88.5	93.1
LCS 160-224720/2-A	Lab Control Sample	92.7	77.8
MB 160-224389/1-A	Method Blank	87.9	96.8
MB 160-224720/1-A	Method Blank	72.0	87.1

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-111220-1
Client Project/Site: Joliet #9 CCR - May 2016 GW
Revision: 1

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Robin M Kintz

Authorized for release by:
6/7/2016 1:27:49 PM
Robin Kintz, Project Manager II
(708)534-5200
robinm.kintz@testamericainc.com

Designee for

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Job ID: 500-111220-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-111220-1

Comments
No additional comments.

Receipt
The samples were received on 5/5/2016 4:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 2.7º C, 2.9º C, 3.2º C, 3.2º C, 3.9º C and 4.9º C.

Receipt Exceptions

The client requested the job description to be changed to identify the month and year of sampling. The reports are revised to update the job description.

Metals
Method(s) 6020A: The following samples was diluted due to the nature of the sample matrix: G47S (500-111220-5), R08S (500-111220-6) and G30S (500-111220-9). Elevated reporting limits (RLs) are provided.

Method(s) 6020A: The continuing calibration verification (CCV) at line 83 and the CCVL (low level) at line 91 in AD batch 3380028 recovered above the upper control limit for B-. These CCV bracketed the MB and LCS only and both of these QC samples were within control limits. All other samples were run in another batch and were bracketed by good CCV's.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-111220-1	T03S	GW	05/05/16 09:40	05/05/16 16:55
500-111220-2	R32S	GW	05/05/16 11:29	05/05/16 16:55
500-111220-3	DUP	Water	05/05/16 11:29	05/05/16 16:55
500-111220-4	G48S	GW	05/05/16 13:45	05/05/16 16:55
500-111220-5	G47S	GW	05/06/16 09:30	05/06/16 14:40
500-111220-6	R08S	GW	05/06/16 11:52	05/06/16 14:40
500-111220-7	G46S	GW	05/09/16 09:25	05/10/16 07:20
500-111220-8	G44S	GW	05/09/16 13:10	05/10/16 07:20
500-111220-9	G30S	Water	05/10/16 10:31	05/10/16 15:30
500-111220-10	G20S	GW	05/11/16 08:50	05/11/16 15:35
500-111220-11	G45S	GW	05/12/16 09:14	05/13/16 08:40

Client Sample ID: T03S

Date Collected: 05/05/16 09:40
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-1

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.018**		0.010		mg/L		05/11/16 08:39	05/11/16 18:18	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 19:38	1
Arsenic	**0.0013**		0.0010		mg/L		05/11/16 08:39	05/11/16 19:38	1
Barium	**0.081**		0.0025		mg/L		05/11/16 08:39	05/11/16 19:38	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:38	1
Boron	**0.84**		0.25		mg/L		05/11/16 08:39	06/02/16 16:01	5
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:38	1
Calcium	**100**		0.20		mg/L		05/11/16 08:39	05/11/16 19:38	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:38	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:38	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:38	1
Molybdenum	**0.030**		0.0050		mg/L		05/11/16 08:39	05/11/16 19:38	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 19:38	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 19:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/09/16 17:15	05/10/16 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**820**		10		mg/L			05/09/16 21:06	1
Chloride	**100**		10		mg/L			05/20/16 22:11	5
Fluoride	**0.21**		0.10		mg/L			05/14/16 21:58	1
Sulfate	**190**		50		mg/L			05/16/16 00:26	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**135.24**				ft			05/05/16 09:40	1
Depth to water from land surface	**132.16**				ft			05/05/16 09:40	1
Elevation of well (ft from MP)	**629.69**				ft			05/05/16 09:40	1
Field pH	**7.16**				SU			05/05/16 09:40	1
Field Temperature	**52.3**				Degrees F			05/05/16 09:40	1
Ground Water Elevation	**494.41**				ft			05/05/16 09:40	1
Specific Conductance	**1208**				umhos/cm			05/05/16 09:40	1
Well bottom elevation	**456.70**				ft			05/05/16 09:40	1

Client Sample ID: R32S

Date Collected: 05/05/16 11:29
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-2

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.069**		0.010		mg/L		05/11/16 08:39	05/11/16 18:22	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 19:42	1
Arsenic	**0.0034**		0.0010		mg/L		05/11/16 08:39	05/11/16 19:42	1
Barium	**0.039**		0.0025		mg/L		05/11/16 08:39	05/11/16 19:42	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:42	1
Boron	**1.9**		0.25		mg/L		05/11/16 08:39	06/02/16 16:04	5
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:42	1
Calcium	**100**		0.20		mg/L		05/11/16 08:39	05/11/16 19:42	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:42	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:42	1
Lead	**0.00050**		0.00050		mg/L		05/11/16 08:39	05/11/16 19:42	1
Molybdenum	**0.29**		0.0050		mg/L		05/11/16 08:39	05/11/16 19:42	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 19:42	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 19:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/09/16 17:15	05/10/16 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**810**		10		mg/L			05/09/16 21:09	1
Chloride	**140**		10		mg/L			05/20/16 22:12	5
Fluoride	**0.32**		0.10		mg/L			05/14/16 22:01	1
Sulfate	**210**		50		mg/L			05/16/16 00:27	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**19.72**				ft			05/05/16 11:29	1
Depth to water from land surface	**17.69**				ft			05/05/16 11:29	1
Elevation of well (ft from MP)	**536.81**				ft			05/05/16 11:29	1
Field pH	**7.38**				SU			05/05/16 11:29	1
Field Temperature	**52.5**				Degrees F			05/05/16 11:29	1
Ground Water Elevation	**517.09**				ft			05/05/16 11:29	1
Specific Conductance	**769**				umhos/cm			05/05/16 11:29	1
Well bottom elevation	**457.84**				ft			05/05/16 11:29	1

Client Sample ID: DUP

Date Collected: 05/05/16 11:29
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.073**		0.010		mg/L		05/11/16 08:39	05/11/16 18:26	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 19:45	1
Arsenic	**0.0035**		0.0010		mg/L		05/11/16 08:39	05/11/16 19:45	1
Barium	**0.040**		0.0025		mg/L		05/11/16 08:39	05/11/16 19:45	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:45	1
Boron	**2.0**		0.25		mg/L		05/11/16 08:39	06/02/16 16:08	5
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:45	1
Calcium	**100**		0.20		mg/L		05/11/16 08:39	05/11/16 19:45	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:45	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:45	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:45	1
Molybdenum	**0.31**		0.0050		mg/L		05/11/16 08:39	05/11/16 19:45	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 19:45	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 19:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/09/16 17:15	05/10/16 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**810**		10		mg/L			05/09/16 21:11	1
Chloride	**150**		10		mg/L			05/20/16 22:13	5
Fluoride	**0.33**		0.10		mg/L			05/14/16 22:03	1
Sulfate	**210**		50		mg/L			05/20/16 07:40	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**19.72**				ft			05/05/16 11:29	1
Depth to water from land surface	**17.69**				ft			05/05/16 11:29	1
Elevation of well (ft from MP)	**536.81**				ft			05/05/16 11:29	1
Field pH	**7.38**				SU			05/05/16 11:29	1
Field Temperature	**52.5**				Degrees F			05/05/16 11:29	1
Ground Water Elevation	**517.09**				ft			05/05/16 11:29	1
Specific Conductance	**769**				umhos/cm			05/05/16 11:29	1
Well bottom elevation	**457.84**				ft			05/05/16 11:29	1

Client Sample ID: G48S

Date Collected: 05/05/16 13:45
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-4

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.016**		0.010		mg/L		05/11/16 08:39	05/11/16 18:30	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 19:49	1
Arsenic	**0.046**		0.0010		mg/L		05/11/16 08:39	05/11/16 19:49	1
Barium	**0.014**		0.0025		mg/L		05/11/16 08:39	05/11/16 19:49	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:49	1
Boron	**9.3**		1.0		mg/L		05/11/16 08:39	06/02/16 16:12	20
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:49	1
Calcium	**5.9**		0.20		mg/L		05/11/16 08:39	05/11/16 19:49	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:49	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:49	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:49	1
Molybdenum	**1.2**		0.0050		mg/L		05/11/16 08:39	05/11/16 19:49	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 19:49	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 19:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/09/16 17:15	05/10/16 13:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		10		mg/L			05/09/16 21:14	1
Chloride	**120**		10		mg/L			05/20/16 22:14	5
Fluoride	**1.5**		0.10		mg/L			05/21/16 17:35	1
Sulfate	**560**		100		mg/L			05/20/16 07:41	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**105.20**				ft			05/05/16 13:45	1
Depth to water from land surface	**102.75**				ft			05/05/16 13:45	1
Elevation of well (ft from MP)	**620.77**				ft			05/05/16 13:45	1
Field pH	**9.53**				SU			05/05/16 13:45	1
Field Temperature	**63.3**				Degrees F			05/05/16 13:45	1
Ground Water Elevation	**515.57**				ft			05/05/16 13:45	1
Specific Conductance	**1740**				umhos/cm			05/05/16 13:45	1
Well bottom elevation	**468.32**				ft			05/05/16 13:45	1

Client Sample ID: G47S

Date Collected: 05/06/16 09:30
Date Received: 05/06/16 14:40

Lab Sample ID: 500-111220-5

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.033**		0.010		mg/L		05/11/16 08:39	05/11/16 18:36	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 19:53	1
Arsenic	**0.034**		0.0010		mg/L		05/11/16 08:39	05/11/16 19:53	1
Barium	**0.017**		0.0025		mg/L		05/11/16 08:39	05/11/16 19:53	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:53	1
Boron	**5.0**		0.50		mg/L		05/11/16 08:39	06/01/16 12:42	10
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:53	1
Calcium	**7.8**		0.20		mg/L		05/11/16 08:39	05/11/16 19:53	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:53	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:53	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:53	1
Molybdenum	**0.41**		0.0050		mg/L		05/11/16 08:39	05/11/16 19:53	1
Selenium	**0.0033**		0.0025		mg/L		05/11/16 08:39	05/11/16 19:53	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 19:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/09/16 17:15	05/10/16 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**910**		10		mg/L			05/09/16 21:17	1
Chloride	**140**		10		mg/L			05/20/16 22:15	5
Fluoride	**0.72**		0.10		mg/L			05/21/16 17:42	1
Sulfate	**410**		100		mg/L			05/20/16 07:42	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**95.48**				ft			05/06/16 09:30	1
Depth to water from land surface	**92.98**				ft			05/06/16 09:30	1
Elevation of well (ft from MP)	**612.32**				ft			05/06/16 09:30	1
Field pH	**9.86**				SU			05/06/16 09:30	1
Field Temperature	**55.8**				Degrees F			05/06/16 09:30	1
Ground Water Elevation	**516.84**				ft			05/06/16 09:30	1
Specific Conductance	**1630**				umhos/cm			05/06/16 09:30	1
Well bottom elevation	**459.84**				ft			05/06/16 09:30	1

Client Sample ID: R08S
Date Collected: 05/06/16 11:52
Date Received: 05/06/16 14:40

Lab Sample ID: 500-111220-6
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.14		0.010		mg/L		05/11/16 08:39	05/11/16 18:41	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 19:57	1
Arsenic	0.0013		0.0010		mg/L		05/11/16 08:39	05/11/16 19:57	1
Barium	0.052		0.0025		mg/L		05/11/16 08:39	05/11/16 19:57	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:57	1
Boron	6.1		0.50		mg/L		05/11/16 08:39	06/01/16 12:46	10
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:57	1
Calcium	120		0.20		mg/L		05/11/16 08:39	05/11/16 19:57	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:57	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:57	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:57	1
Molybdenum	0.39		0.0050		mg/L		05/11/16 08:39	05/11/16 19:57	1
Selenium	0.0079		0.0025		mg/L		05/11/16 08:39	05/11/16 19:57	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 19:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/09/16 17:15	05/10/16 14:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		10		mg/L			05/09/16 21:20	1
Chloride	80		10		mg/L			05/20/16 22:16	5
Fluoride	0.19		0.10		mg/L			05/21/16 17:44	1
Sulfate	380		100		mg/L			05/24/16 07:55	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	67.02				ft			05/06/16 11:52	1
Depth to water from land surface	64.47				ft			05/06/16 11:52	1
Elevation of well (ft from MP)	578.65				ft			05/06/16 11:52	1
Field pH	7.70				SU			05/06/16 11:52	1
Field Temperature	60.1				Degrees F			05/06/16 11:52	1
Ground Water Elevation	511.63				ft			05/06/16 11:52	1
Specific Conductance	1058				umhos/cm			05/06/16 11:52	1
Well bottom elevation	453.08				ft			05/06/16 11:52	1

Client Sample ID: G46S
Date Collected: 05/09/16 09:25
Date Received: 05/10/16 07:20

Lab Sample ID: 500-111220-7
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		05/11/16 08:39	05/11/16 18:45	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 20:01	1
Arsenic	0.0018		0.0010		mg/L		05/11/16 08:39	05/11/16 20:01	1
Barium	0.099		0.0025		mg/L		05/11/16 08:39	05/11/16 20:01	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 20:01	1
Boron	7.7		1.0		mg/L		05/11/16 08:39	06/01/16 12:50	20
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 20:01	1
Calcium	100		0.20		mg/L		05/11/16 08:39	05/11/16 20:01	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 20:01	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 20:01	1
Lead	0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 20:01	1
Molybdenum	0.70		0.0050		mg/L		05/11/16 08:39	05/11/16 20:01	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 20:01	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 20:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/10/16 15:30	05/11/16 09:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		10		mg/L			05/11/16 04:40	1
Chloride	100		10		mg/L			05/20/16 22:16	5
Fluoride	0.28		0.10		mg/L			05/21/16 17:47	1
Sulfate	360		100		mg/L			05/24/16 07:56	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	96.74				ft			05/09/16 09:25	1
Depth to water from land surface	94.04				ft			05/09/16 09:25	1
Elevation of well (ft from MP)	601.32				ft			05/09/16 09:25	1
Field pH	7.77				SU			05/09/16 09:25	1
Field Temperature	53.6				Degrees F			05/09/16 09:25	1
Ground Water Elevation	504.58				ft			05/09/16 09:25	1
Specific Conductance	1232				umhos/cm			05/09/16 09:25	1
Well bottom elevation	453.62				ft			05/09/16 09:25	1

Client Sample ID: G44S
Date Collected: 05/09/16 13:10
Date Received: 05/10/16 07:20

Lab Sample ID: 500-111220-8
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.015**		0.010		mg/L		05/11/16 08:39	05/11/16 18:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 20:12	1
Arsenic	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 20:12	1
Barium	**0.049**		0.0025		mg/L		05/11/16 08:39	05/11/16 20:12	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 20:12	1
Boron	**0.91**		0.50		mg/L		05/11/16 08:39	06/01/16 12:53	10
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 20:12	1
Calcium	**110**		0.20		mg/L		05/11/16 08:39	05/11/16 20:12	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 20:12	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 20:12	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 20:12	1
Molybdenum	**0.046**		0.0050		mg/L		05/11/16 08:39	05/11/16 20:12	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 20:12	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 20:12	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/10/16 15:30	05/11/16 12:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**690**		10		mg/L			05/11/16 04:43	1
Chloride	**37**		2.0		mg/L			05/20/16 21:41	1
Fluoride	**0.18**		0.10		mg/L			05/21/16 17:49	1
Sulfate	**120**		50		mg/L			05/24/16 07:59	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**80.42**				ft			05/09/16 13:10	1
Depth to water from land surface	**78.24**				ft			05/09/16 13:10	1
Elevation of well (ft from MP)	**586.69**				ft			05/09/16 13:10	1
Field pH	**7.39**				SU			05/09/16 13:10	1
Field Temperature	**54.7**				Degrees F			05/09/16 13:10	1
Ground Water Elevation	**506.27**				ft			05/09/16 13:10	1
Specific Conductance	**920**				umhos/cm			05/09/16 13:10	1
Well bottom elevation	**455.11**				ft			05/09/16 13:10	1

Client Sample ID: G30S

Date Collected: 05/10/16 10:31
Date Received: 05/10/16 15:30

Lab Sample ID: 500-111220-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.021**		0.010		mg/L		05/11/16 08:39	05/11/16 18:54	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 20:16	1
Arsenic	**0.017**		0.0010		mg/L		05/11/16 08:39	05/11/16 20:16	1
Barium	**0.039**		0.0025		mg/L		05/11/16 08:39	05/11/16 20:16	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 20:16	1
Boron	**5.4**		0.50		mg/L		05/11/16 08:39	06/01/16 13:06	10
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 20:16	1
Calcium	**53**		0.20		mg/L		05/11/16 08:39	05/11/16 20:16	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 20:16	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 20:16	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 20:16	1
Molybdenum	**0.30**		0.0050		mg/L		05/11/16 08:39	05/11/16 20:16	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 20:16	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 20:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/11/16 15:30	05/12/16 10:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			05/11/16 04:46	1
Chloride	**190**		10		mg/L			05/20/16 22:18	5
Fluoride	**1.3**		0.10		mg/L			05/21/16 18:01	1
Sulfate	**390**		100		mg/L			05/24/16 08:00	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**2.53**				ft			05/10/16 10:31	1
Depth to water from land surface	**0.22**				ft			05/10/16 10:31	1
Elevation of well (ft from MP)	**524.40**				ft			05/10/16 10:31	1
Field pH	**7.68**				SU			05/10/16 10:31	1
Field Temperature	**54.1**				Degrees F			05/10/16 10:31	1
Ground Water Elevation	**521.87**				ft			05/10/16 10:31	1
Specific Conductance	**1255**				umhos/cm			05/10/16 10:31	1
Well bottom elevation	**462.58**				ft			05/10/16 10:31	1

Client Sample ID: G20S

Date Collected: 05/11/16 08:50
Date Received: 05/11/16 15:35

Lab Sample ID: 500-111220-10

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.037**		0.010		mg/L		05/17/16 15:24	05/18/16 19:06	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/16 15:24	05/19/16 18:25	1
Arsenic	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 18:25	1
Barium	**0.049**		0.0025		mg/L		05/17/16 15:24	05/19/16 18:25	1
Beryllium	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 18:25	1
Boron	**1.2**		0.050		mg/L		05/17/16 15:24	05/20/16 18:05	1
Cadmium	<0.00050		0.00050		mg/L		05/17/16 15:24	05/19/16 18:25	1
Calcium	**53**		0.20		mg/L		05/17/16 15:24	05/19/16 18:25	1
Chromium	<0.0050		0.0050		mg/L		05/17/16 15:24	05/19/16 18:25	1
Cobalt	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 18:25	1
Lead	<0.00050		0.00050		mg/L		05/17/16 15:24	05/20/16 18:05	1
Molybdenum	**0.011**		0.0050		mg/L		05/17/16 15:24	05/19/16 18:25	1
Selenium	<0.0025		0.0025		mg/L		05/17/16 15:24	05/19/16 18:25	1
Thallium	<0.0020		0.0020		mg/L		05/17/16 15:24	05/20/16 18:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.00027**		0.00020		mg/L		05/12/16 17:00	05/16/16 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**410**		10		mg/L			05/12/16 02:10	1
Chloride	**12**		2.0		mg/L			05/20/16 21:44	1
Fluoride	**0.81**		0.10		mg/L			05/21/16 18:03	1
Sulfate	**77**		20		mg/L			05/24/16 08:01	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**51.32**				ft			05/11/16 08:50	1
Depth to water from land surface	**48.54**				ft			05/11/16 08:50	1
Elevation of well (ft from MP)	**580.33**				ft			05/11/16 08:50	1
Field pH	**7.52**				SU			05/11/16 08:50	1
Field Temperature	**54.0**				Degrees F			05/11/16 08:50	1
Ground Water Elevation	**529.01**				ft			05/11/16 08:50	1
Specific Conductance	**1590**				umhos/cm			05/11/16 08:50	1
Well bottom elevation	**442.28**				ft			05/11/16 08:50	1

Client Sample ID: G45S
Date Collected: 05/12/16 09:14
Date Received: 05/13/16 08:40

Lab Sample ID: 500-111220-11
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.036**		0.010		mg/L		05/17/16 15:24	05/18/16 19:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/16 15:24	05/19/16 18:29	1
Arsenic	**0.0076**		0.0010		mg/L		05/17/16 15:24	05/19/16 18:29	1
Barium	**0.041**		0.0025		mg/L		05/17/16 15:24	05/19/16 18:29	1
Beryllium	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 18:29	1
Boron	**0.68**		0.050		mg/L		05/17/16 15:24	05/20/16 18:09	1
Cadmium	<0.00050		0.00050		mg/L		05/17/16 15:24	05/19/16 18:29	1
Calcium	**110**		0.20		mg/L		05/17/16 15:24	05/19/16 18:29	1
Chromium	<0.0050		0.0050		mg/L		05/17/16 15:24	05/19/16 18:29	1
Cobalt	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 18:29	1
Lead	<0.00050		0.00050		mg/L		05/17/16 15:24	05/20/16 18:09	1
Molybdenum	**0.010**		0.0050		mg/L		05/17/16 15:24	05/19/16 18:29	1
Selenium	<0.0025		0.0025		mg/L		05/17/16 15:24	05/19/16 18:29	1
Thallium	<0.0020		0.0020		mg/L		05/17/16 15:24	05/20/16 18:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/18/16 15:15	05/19/16 11:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**860**		10		mg/L			05/15/16 18:10	1
Chloride	**140**		10		mg/L			05/20/16 22:19	5
Fluoride	**0.34**		0.10		mg/L			05/21/16 18:06	1
Sulfate	**230**		50		mg/L			05/24/16 08:02	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**67.28**				ft			05/12/16 09:14	1
Depth to water from land surface	**64.31**				ft			05/12/16 09:14	1
Elevation of well (ft from MP)	**603.31**				ft			05/12/16 09:14	1
Field pH	**7.37**				SU			05/12/16 09:14	1
Field Temperature	**57.4**				Degrees F			05/12/16 09:14	1
Ground Water Elevation	**536.03**				ft			05/12/16 09:14	1
Specific Conductance	**1098**				umhos/cm			05/12/16 09:14	1
Well bottom elevation	**471.05**				ft			05/12/16 09:14	1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 334609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	7470A	
500-111220-2	R32S	Total/NA	GW	7470A	
500-111220-3	DUP	Total/NA	Water	7470A	
500-111220-4	G48S	Total/NA	GW	7470A	
500-111220-5	G47S	Total/NA	GW	7470A	
500-111220-6	R08S	Total/NA	GW	7470A	
LCS 500-334609/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-334609/12-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 334790

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-7	G46S	Total/NA	GW	7470A	
500-111220-8	G44S	Total/NA	GW	7470A	
LCS 500-334790/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-334790/12-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 334804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	7470A	334609
500-111220-2	R32S	Total/NA	GW	7470A	334609
500-111220-3	DUP	Total/NA	Water	7470A	334609
500-111220-4	G48S	Total/NA	GW	7470A	334609
500-111220-5	G47S	Total/NA	GW	7470A	334609
500-111220-6	R08S	Total/NA	GW	7470A	334609
LCS 500-334609/13-A	Lab Control Sample	Total/NA	Water	7470A	334609
MB 500-334609/12-A	Method Blank	Total/NA	Water	7470A	334609

Prep Batch: 334944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total Recoverable	GW	3005A	
500-111220-2	R32S	Total Recoverable	GW	3005A	
500-111220-3	DUP	Total Recoverable	Water	3005A	
500-111220-4	G48S	Total Recoverable	GW	3005A	
500-111220-5	G47S	Total Recoverable	GW	3005A	
500-111220-6	R08S	Total Recoverable	GW	3005A	
500-111220-7	G46S	Total Recoverable	GW	3005A	
500-111220-8	G44S	Total Recoverable	GW	3005A	
500-111220-9	G30S	Total Recoverable	Water	3005A	
LCS 500-334944/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 500-334944/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 335009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-7	G46S	Total/NA	GW	7470A	334790
500-111220-8	G44S	Total/NA	GW	7470A	334790
LCS 500-334790/13-A	Lab Control Sample	Total/NA	Water	7470A	334790
MB 500-334790/12-A	Method Blank	Total/NA	Water	7470A	334790

Prep Batch: 335066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-9	G30S	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 335066 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-335066/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-335066/12-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 335094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total Recoverable	GW	6010C	334944
500-111220-2	R32S	Total Recoverable	GW	6010C	334944
500-111220-3	DUP	Total Recoverable	Water	6010C	334944
500-111220-4	G48S	Total Recoverable	GW	6010C	334944
500-111220-5	G47S	Total Recoverable	GW	6010C	334944
500-111220-6	R08S	Total Recoverable	GW	6010C	334944
500-111220-7	G46S	Total Recoverable	GW	6010C	334944
500-111220-8	G44S	Total Recoverable	GW	6010C	334944
500-111220-9	G30S	Total Recoverable	Water	6010C	334944
LCS 500-334944/2-A	Lab Control Sample	Total Recoverable	Water	6010C	334944
MB 500-334944/1-A	Method Blank	Total Recoverable	Water	6010C	334944

Analysis Batch: 335163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-9	G30S	Total/NA	Water	7470A	335066
LCS 500-335066/13-A	Lab Control Sample	Total/NA	Water	7470A	335066
MB 500-335066/12-A	Method Blank	Total/NA	Water	7470A	335066

Prep Batch: 335256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total/NA	GW	7470A	
LCS 500-335256/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-335256/12-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 335703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total/NA	GW	7470A	335256
LCS 500-335256/13-A	Lab Control Sample	Total/NA	Water	7470A	335256
MB 500-335256/12-A	Method Blank	Total/NA	Water	7470A	335256

Prep Batch: 335892

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total Recoverable	GW	3005A	
500-111220-11	G45S	Total Recoverable	GW	3005A	
LCS 500-335892/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 500-335892/1-A	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 336084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-11	G45S	Total/NA	GW	7470A	
LCS 500-336084/13-A	Lab Control Sample	Total/NA	Water	7470A	
MB 500-336084/12-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 336164

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total Recoverable	GW	6010C	335892

Metals (Continued)

Analysis Batch: 336164 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-11	G45S	Total Recoverable	GW	6010C	335892
LCS 500-335892/2-A	Lab Control Sample	Total Recoverable	Water	6010C	335892
MB 500-335892/1-A	Method Blank	Total Recoverable	Water	6010C	335892

Analysis Batch: 336216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-11	G45S	Total/NA	GW	7470A	336084
LCS 500-336084/13-A	Lab Control Sample	Total/NA	Water	7470A	336084
MB 500-336084/12-A	Method Blank	Total/NA	Water	7470A	336084

Analysis Batch: 336337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total Recoverable	GW	6020A	335892
500-111220-11	G45S	Total Recoverable	GW	6020A	335892
LCS 500-335892/2-A	Lab Control Sample	Total Recoverable	Water	6020A	335892
MB 500-335892/1-A	Method Blank	Total Recoverable	Water	6020A	335892

Analysis Batch: 336668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total Recoverable	GW	6020A	335892
500-111220-11	G45S	Total Recoverable	GW	6020A	335892
LCS 500-335892/2-A	Lab Control Sample	Total Recoverable	Water	6020A	335892
MB 500-335892/1-A	Method Blank	Total Recoverable	Water	6020A	335892

Analysis Batch: 337991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-5	G47S	Total Recoverable	GW	6020A	334944
500-111220-6	R08S	Total Recoverable	GW	6020A	334944
500-111220-7	G46S	Total Recoverable	GW	6020A	334944
500-111220-8	G44S	Total Recoverable	GW	6020A	334944
500-111220-9	G30S	Total Recoverable	Water	6020A	334944

Analysis Batch: 338008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total Recoverable	GW	6020A	334944
500-111220-2	R32S	Total Recoverable	GW	6020A	334944
500-111220-3	DUP	Total Recoverable	Water	6020A	334944
500-111220-4	G48S	Total Recoverable	GW	6020A	334944
500-111220-5	G47S	Total Recoverable	GW	6020A	334944
500-111220-6	R08S	Total Recoverable	GW	6020A	334944
500-111220-7	G46S	Total Recoverable	GW	6020A	334944
500-111220-8	G44S	Total Recoverable	GW	6020A	334944
500-111220-9	G30S	Total Recoverable	Water	6020A	334944
LCS 500-334944/2-A	Lab Control Sample	Total Recoverable	Water	6020A	334944
MB 500-334944/1-A	Method Blank	Total Recoverable	Water	6020A	334944

Analysis Batch: 338180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total Recoverable	GW	6020A	334944
500-111220-2	R32S	Total Recoverable	GW	6020A	334944
500-111220-3	DUP	Total Recoverable	Water	6020A	334944

Metals (Continued)

Analysis Batch: 338180 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-4	G48S	Total Recoverable	GW	6020A	334944

General Chemistry

Analysis Batch: 334657

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	SM 2540C	
500-111220-2	R32S	Total/NA	GW	SM 2540C	
500-111220-3	DUP	Total/NA	Water	SM 2540C	
500-111220-4	G48S	Total/NA	GW	SM 2540C	
500-111220-5	G47S	Total/NA	GW	SM 2540C	
500-111220-6	R08S	Total/NA	GW	SM 2540C	
LCS 500-334657/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-334657/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 334896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-7	G46S	Total/NA	GW	SM 2540C	
500-111220-8	G44S	Total/NA	GW	SM 2540C	
500-111220-9	G30S	Total/NA	Water	SM 2540C	
LCS 500-334896/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-334896/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 335087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total/NA	GW	SM 2540C	
LCS 500-335087/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-335087/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 335515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	SM 4500 F C	
500-111220-2	R32S	Total/NA	GW	SM 4500 F C	
500-111220-3	DUP	Total/NA	Water	SM 4500 F C	
LCS 500-335515/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 500-335515/31	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 335525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-11	G45S	Total/NA	GW	SM 2540C	
LCS 500-335525/2	Lab Control Sample	Total/NA	Water	SM 2540C	
MB 500-335525/1	Method Blank	Total/NA	Water	SM 2540C	

Analysis Batch: 335539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	SM 4500 SO4 E	
500-111220-2	R32S	Total/NA	GW	SM 4500 SO4 E	
LCS 500-335539/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 500-335539/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 336325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-3	DUP	Total/NA	Water	SM 4500 SO4 E	
500-111220-4	G48S	Total/NA	GW	SM 4500 SO4 E	
500-111220-5	G47S	Total/NA	GW	SM 4500 SO4 E	
LCS 500-336325/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 500-336325/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 336515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-4	G48S	Total/NA	GW	SM 4500 F C	
500-111220-4 MS	G48S	Total/NA	GW	SM 4500 F C	
500-111220-4 MSD	G48S	Total/NA	GW	SM 4500 F C	
500-111220-5	G47S	Total/NA	GW	SM 4500 F C	
500-111220-6	R08S	Total/NA	GW	SM 4500 F C	
500-111220-7	G46S	Total/NA	GW	SM 4500 F C	
500-111220-8	G44S	Total/NA	GW	SM 4500 F C	
500-111220-9	G30S	Total/NA	Water	SM 4500 F C	
500-111220-10	G20S	Total/NA	GW	SM 4500 F C	
500-111220-11	G45S	Total/NA	GW	SM 4500 F C	
LCS 500-336515/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
MB 500-336515/3	Method Blank	Total/NA	Water	SM 4500 F C	

Analysis Batch: 336543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	SM 4500 Cl- E	
500-111220-2	R32S	Total/NA	GW	SM 4500 Cl- E	
500-111220-3	DUP	Total/NA	Water	SM 4500 Cl- E	
500-111220-4	G48S	Total/NA	GW	SM 4500 Cl- E	
500-111220-4 MS	G48S	Total/NA	GW	SM 4500 Cl- E	
500-111220-4 MSD	G48S	Total/NA	GW	SM 4500 Cl- E	
500-111220-5	G47S	Total/NA	GW	SM 4500 Cl- E	
500-111220-6	R08S	Total/NA	GW	SM 4500 Cl- E	
500-111220-7	G46S	Total/NA	GW	SM 4500 Cl- E	
500-111220-8	G44S	Total/NA	GW	SM 4500 Cl- E	
500-111220-9	G30S	Total/NA	Water	SM 4500 Cl- E	
500-111220-10	G20S	Total/NA	GW	SM 4500 Cl- E	
500-111220-11	G45S	Total/NA	GW	SM 4500 Cl- E	
LCS 500-336543/10	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MB 500-336543/9	Method Blank	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 336829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-6	R08S	Total/NA	GW	SM 4500 SO4 E	
500-111220-7	G46S	Total/NA	GW	SM 4500 SO4 E	
500-111220-7 MS	G46S	Total/NA	GW	SM 4500 SO4 E	
500-111220-7 MSD	G46S	Total/NA	GW	SM 4500 SO4 E	
500-111220-8	G44S	Total/NA	GW	SM 4500 SO4 E	
500-111220-9	G30S	Total/NA	Water	SM 4500 SO4 E	
500-111220-10	G20S	Total/NA	GW	SM 4500 SO4 E	
500-111220-11	G45S	Total/NA	GW	SM 4500 SO4 E	
LCS 500-336829/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MB 500-336829/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Field Service / Mobile Lab

Analysis Batch: 335829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	Field Sampling	
500-111220-2	R32S	Total/NA	GW	Field Sampling	
500-111220-3	DUP	Total/NA	Water	Field Sampling	
500-111220-4	G48S	Total/NA	GW	Field Sampling	
500-111220-5	G47S	Total/NA	GW	Field Sampling	
500-111220-6	R08S	Total/NA	GW	Field Sampling	
500-111220-7	G46S	Total/NA	GW	Field Sampling	
500-111220-8	G44S	Total/NA	GW	Field Sampling	
500-111220-9	G30S	Total/NA	Water	Field Sampling	
500-111220-10	G20S	Total/NA	GW	Field Sampling	
500-111220-11	G45S	Total/NA	GW	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-334944/1-A
Matrix: Water
Analysis Batch: 335094

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 334944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/11/16 08:39	05/11/16 17:57	1

Lab Sample ID: LCS 500-334944/2-A
Matrix: Water
Analysis Batch: 335094

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 334944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.497		mg/L		99	80 - 120

Lab Sample ID: MB 500-335892/1-A
Matrix: Water
Analysis Batch: 336164

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 335892

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/17/16 15:24	05/18/16 18:36	1

Lab Sample ID: LCS 500-335892/2-A
Matrix: Water
Analysis Batch: 336164

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 335892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.527		mg/L		105	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-334944/1-A
Matrix: Water
Analysis Batch: 338008

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 334944

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/11/16 08:39	05/11/16 19:27	1
Arsenic	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:27	1
Barium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 19:27	1
Beryllium	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:27	1
Boron	<0.050	^	0.050		mg/L		05/11/16 08:39	05/11/16 19:27	1
Cadmium	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:27	1
Calcium	<0.20		0.20		mg/L		05/11/16 08:39	05/11/16 19:27	1
Chromium	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:27	1
Cobalt	<0.0010		0.0010		mg/L		05/11/16 08:39	05/11/16 19:27	1
Lead	<0.00050		0.00050		mg/L		05/11/16 08:39	05/11/16 19:27	1
Molybdenum	<0.0050		0.0050		mg/L		05/11/16 08:39	05/11/16 19:27	1
Selenium	<0.0025		0.0025		mg/L		05/11/16 08:39	05/11/16 19:27	1
Thallium	<0.0020		0.0020		mg/L		05/11/16 08:39	05/11/16 19:27	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-334944/2-A
Matrix: Water
Analysis Batch: 338008

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 334944

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.492		mg/L		98	80 - 120
Arsenic	0.100	0.0962		mg/L		96	80 - 120
Barium	2.00	1.94		mg/L		97	80 - 120
Beryllium	0.0500	0.0447		mg/L		89	80 - 120
Boron	1.00	0.916	^	mg/L		92	80 - 120
Cadmium	0.0500	0.0496		mg/L		99	80 - 120
Calcium	10.0	10.2		mg/L		102	80 - 120
Chromium	0.200	0.198		mg/L		99	80 - 120
Cobalt	0.500	0.502		mg/L		100	80 - 120
Lead	0.100	0.103		mg/L		103	80 - 120
Molybdenum	1.00	0.969		mg/L		97	80 - 120
Selenium	0.100	0.0950		mg/L		95	80 - 120
Thallium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: MB 500-335892/1-A
Matrix: Water
Analysis Batch: 336337

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 335892

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/17/16 15:24	05/19/16 17:25	1
Arsenic	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 17:25	1
Barium	<0.0025		0.0025		mg/L		05/17/16 15:24	05/19/16 17:25	1
Beryllium	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 17:25	1
Cadmium	<0.00050		0.00050		mg/L		05/17/16 15:24	05/19/16 17:25	1
Calcium	<0.20		0.20		mg/L		05/17/16 15:24	05/19/16 17:25	1
Chromium	<0.0050		0.0050		mg/L		05/17/16 15:24	05/19/16 17:25	1
Cobalt	<0.0010		0.0010		mg/L		05/17/16 15:24	05/19/16 17:25	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/16 15:24	05/19/16 17:25	1
Selenium	<0.0025		0.0025		mg/L		05/17/16 15:24	05/19/16 17:25	1

Lab Sample ID: MB 500-335892/1-A
Matrix: Water
Analysis Batch: 336668

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 335892

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/17/16 15:24	05/20/16 17:39	1
Lead	<0.00050		0.00050		mg/L		05/17/16 15:24	05/20/16 17:39	1
Thallium	<0.0020		0.0020		mg/L		05/17/16 15:24	05/20/16 17:39	1

Lab Sample ID: LCS 500-335892/2-A
Matrix: Water
Analysis Batch: 336337

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 335892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.488		mg/L		98	80 - 120
Arsenic	0.100	0.100		mg/L		100	80 - 120
Barium	2.00	2.05		mg/L		102	80 - 120
Beryllium	0.0500	0.0499		mg/L		100	80 - 120
Cadmium	0.0500	0.0507		mg/L		101	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-335892/2-A
Matrix: Water
Analysis Batch: 336337

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 335892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	10.7		mg/L		107	80 - 120
Chromium	0.200	0.201		mg/L		100	80 - 120
Cobalt	0.500	0.506		mg/L		101	80 - 120
Molybdenum	1.00	0.974		mg/L		97	80 - 120
Selenium	0.100	0.0999		mg/L		100	80 - 120

Lab Sample ID: LCS 500-335892/2-A
Matrix: Water
Analysis Batch: 336668

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 335892

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-334609/12-A
Matrix: Water
Analysis Batch: 334804

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 334609

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/09/16 17:15	05/10/16 13:06	1

Lab Sample ID: LCS 500-334609/13-A
Matrix: Water
Analysis Batch: 334804

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334609

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00207		mg/L		103	80 - 120

Lab Sample ID: MB 500-334790/12-A
Matrix: Water
Analysis Batch: 335009

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 334790

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/10/16 15:30	05/11/16 09:27	1

Lab Sample ID: LCS 500-334790/13-A
Matrix: Water
Analysis Batch: 335009

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 334790

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00184		mg/L		92	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 500-335066/12-A
Matrix: Water
Analysis Batch: 335163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 335066

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/11/16 15:30	05/12/16 08:55	1

Lab Sample ID: LCS 500-335066/13-A
Matrix: Water
Analysis Batch: 335163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 335066

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00204		mg/L		102	80 - 120

Lab Sample ID: MB 500-335256/12-A
Matrix: Water
Analysis Batch: 335703

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 335256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/12/16 17:00	05/16/16 16:04	1

Lab Sample ID: LCS 500-335256/13-A
Matrix: Water
Analysis Batch: 335703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 335256

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00202		mg/L		101	80 - 120

Lab Sample ID: MB 500-336084/12-A
Matrix: Water
Analysis Batch: 336216

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 336084

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/18/16 15:15	05/19/16 10:32	1

Lab Sample ID: LCS 500-336084/13-A
Matrix: Water
Analysis Batch: 336216

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 336084

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00184		mg/L		92	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-334657/1
Matrix: Water
Analysis Batch: 334657

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/09/16 20:35	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-334657/2
Matrix: Water
Analysis Batch: 334657

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	298		mg/L		119	80 - 120

Lab Sample ID: MB 500-334896/1
Matrix: Water
Analysis Batch: 334896

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/11/16 04:02	1

Lab Sample ID: LCS 500-334896/2
Matrix: Water
Analysis Batch: 334896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	296		mg/L		118	80 - 120

Lab Sample ID: MB 500-335087/1
Matrix: Water
Analysis Batch: 335087

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/12/16 01:19	1

Lab Sample ID: LCS 500-335087/2
Matrix: Water
Analysis Batch: 335087

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	292		mg/L		117	80 - 120

Lab Sample ID: MB 500-335525/1
Matrix: Water
Analysis Batch: 335525

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/15/16 17:50	1

Lab Sample ID: LCS 500-335525/2
Matrix: Water
Analysis Batch: 335525

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	266		mg/L		106	80 - 120

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-336543/9
Matrix: Water
Analysis Batch: 336543

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/20/16 21:28	1

Lab Sample ID: LCS 500-336543/10
Matrix: Water
Analysis Batch: 336543

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	54.5		mg/L		109	80 - 120

Lab Sample ID: 500-111220-4 MS
Matrix: GW
Analysis Batch: 336543

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	120		50.0	164		mg/L		87	75 - 125

Lab Sample ID: 500-111220-4 MSD
Matrix: GW
Analysis Batch: 336543

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	120		50.0	167		mg/L		94	75 - 125	2	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-335515/31
Matrix: Water
Analysis Batch: 335515

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/14/16 21:51	1

Lab Sample ID: LCS 500-335515/32
Matrix: Water
Analysis Batch: 335515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.8		mg/L		108	80 - 120

Lab Sample ID: MB 500-336515/3
Matrix: Water
Analysis Batch: 336515

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/21/16 17:24	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-336515/4
Matrix: Water
Analysis Batch: 336515

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	9.89		mg/L		99	80 - 120

Lab Sample ID: 500-111220-4 MS
Matrix: GW
Analysis Batch: 336515

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.5		5.00	6.50		mg/L		101	75 - 125

Lab Sample ID: 500-111220-4 MSD
Matrix: GW
Analysis Batch: 336515

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.5		5.00	6.50		mg/L		101	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-335539/3
Matrix: Water
Analysis Batch: 335539

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			05/16/16 00:06	1

Lab Sample ID: LCS 500-335539/4
Matrix: Water
Analysis Batch: 335539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.5		mg/L		97	80 - 120

Lab Sample ID: MB 500-336325/3
Matrix: Water
Analysis Batch: 336325

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			05/20/16 07:21	1

Lab Sample ID: LCS 500-336325/4
Matrix: Water
Analysis Batch: 336325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.7		mg/L		103	80 - 120

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MB 500-336829/3
Matrix: Water
Analysis Batch: 336829

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			05/24/16 07:53	1

Lab Sample ID: LCS 500-336829/4
Matrix: Water
Analysis Batch: 336829

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	20.3		mg/L		101	80 - 120		

Lab Sample ID: 500-111220-7 MS
Matrix: GW
Analysis Batch: 336829

Client Sample ID: G46S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	360		800	1100		mg/L		93	75 - 125		

Lab Sample ID: 500-111220-7 MSD
Matrix: GW
Analysis Batch: 336829

Client Sample ID: G46S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	360		800	1190		mg/L		103	75 - 125	7	20

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-111220 COC

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.2

Report To (optional)	Bill To (optional)
Contact:	Contact:
Company:	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client	Client Project #
Midwest Generation EME LLC	
Project Name: Joliet #9 CCR - 1Q16 GW	
Project Location/State: Joliet, IL.	Lab Project #
Sampler: Noe L, Andrew N.	Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228 (3 per sample)	Total Metals	Cl, Fl, SO4, TDS							
1		TO3S	05/05/16	0940	5	W		1	1	1							
2		R32S	05/05/16	1129	5	W		1	1	1							
3		DUP	05/05/16	1129	5	W		1	1	1							DUP is from R32S
4		G48S	05/05/16	1345	5	W		1	1	1							

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TBL	05/05/16	1655	[signature]	TA-CHI	5/5/16	1655
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-111220 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: 2.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Erik Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228 (3 per sample)	Total Metals	Cl, Fl, SO4, TDS							
5		G47S	05/06/16	0930	5	W		1	1	1							
6		R08S	05/06/16	1152	5	W		1	1	1							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	05/06/16	1440	[illegible]	TA-CHI	5/6/16	1440
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

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Phone: 708.534.5200 Fax: 708.53

500-111220 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.7

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							Comments
7		G46S	05/09/16	0925	5	W		1	1	1							
8		G44S	05/09/16	1310	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/09/16	1615	[signature]	TA-CAS	5/10/16	0720
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-580-(1202)

6/7/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

500-111220 COC

Chain of Custody Record

Lab Job #: 500 - 111220
Chain of Custody Number:
Page _____ of _____
Temperature °C of Cooler: 4.9

Client	Client Project #
Midwest Generation	EME LLC
Project Name: Joliet #9 CCR - 1Q16 GW	
Project Location/State: Joliet, IL.	Lab Project #
Sampler: Noe L., Andrew N.	Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals	Cl, Fl, Sulf, TDS							Comments
9		G305	05/16/16	1031	5 4	W		✓	✓	✓							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/10/16	1530	[signature]	TAL	05/10/16	1530
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier ✓
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

6/7/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Long

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, Fl, SO4, TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS	Comments
10		GZ05	05/11/16	0850	4	W	1	1	1	

500-111220 COC

8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/11/16	1535				

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

6/7/2016

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Phone: 708.534.5200 Fax: 708.53

500-111220 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.2

Client	Client Project #	Preservative	3	3	8						
Midwest Generation EME LLC											
Project Name: Joliet #9 CCR - 1Q16 GW		Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS						
Project Location/State: Joliet, IL	Lab Project #										
Sampler: Noe L, Andrew N.	Lab PM: Eric Lang										

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix								Comments
11		645 S	05/12/16	0914	5	W	-	-	-					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	05/12/16	1515	[illegible]	TA-CAF	5/13/16	0840
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

6/7/2016

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/05/16 Start Purge: 0920 (2400 Hr. Clock) End Purge: 0940

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 052

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.65 (ft./msl)
Water Level 135.24 (ft.)
Ground Water Elev. 494.41 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.16	7.16	7.16	(std.)
SC	1213	1208	1208	(umhos/cm)
Temp.	11.32	11.30	11.30	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 52°F, Sunny, NE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 135.24 - 3.08 = 132.16 (ft.)
Levels were taken on 04/04/16 @ 1458.
* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/05/16 Start Purge: 1110 (2400 Hr. Clock) End Purge: 1129

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.81 (ft./msl)
Water Level 19.72 (ft.)
Ground Water Elev. 517.09 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.38	7.38	(std.)
SC	779	769	769	(umhos/cm)
Temp.	11.37	11.38	11.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 59°F, Sunny, NE winds 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 19.72 - 2.03 = 17.69 (ft.)
Levels were taken on 04/04/16 @ 1121.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: DUP
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-3

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/05/16 Start Purge: 1110 (2400 Hr. Clock) End Purge: 1129

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.03 (ft)

Ref. Measuring Pt. TIC

Well Elevation *536.81 (ft./msl)

Water Level 19.72 (ft.)

Ground Water Elev. 517.09 (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.38	7.38	(std.)
SC	779	769	769	(umhos/cm)
Temp.	11.37	11.38	11.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 59°F, Sunny, NE winds 10-15 mph

Other: *Reference Measurement (Updated 11/19/15 Dup of R32S)

Depth To Water from L.S. = 19.72 - 2.03 = 17.69 (ft.)

Levels were taken on 04/04/16 @ 1121.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/05/16 Start Purge: 1325 (2400 Hr. Clock) End Purge: 1345

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.45 (ft)

Ref. Measuring Pt. TIC

Well Elevation *620.77 (ft./msl)

Water Level 105.20 (ft.)

Ground Water Elev. 515.57 (ft./msl)

Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.52	9.53	9.53	(std.)
SC	1,750	1,740	1,740	(umhos/cm)
Temp.	17.00	17.36	17.36	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor

Weather Conditions: 63°F, Sunny, NE wind 10–15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 105.20 − 2.45 = 102.75 (ft)

Levels were taken on 04/04/16 @ 1358.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/04/16 Start Purge: 0910 (2400 Hr. Clock) End Purge: 0930

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.50 (ft)

Ref. Measuring Pt. TIC

Well Elevation *612.32 (ft./msl)

Water Level 95.48 (ft.)

Ground Water Elev. 516.84 (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.85	9.86	9.86	(std.)
SC	1,630	1,630	1,630	(umhos/cm)
Temp.	13.21	13.18	13.18	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, ~~Strong~~ V.S. Slight Odor

Weather Conditions: 58 °F, Cloudy, SW winds @ 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 95.48 − 2.50 = 92.98 (ft.)

Levels were taken on 04/04/16 @ 1409.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/06/16 Start Purge: 1135 (2400 Hr. Clock) End Purge: 1152

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.88

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 67.02 (ft.)
Ground Water Elev. 511.63 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.71	7.70	7.70	(std.)
SC	1,055	1,058	1,058	(umhos/cm)
Temp.	15.08	15.58	15.58	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 72°F, Partly Cloudy, SW winds 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 67.02 - 2.55 = 64.47 (ft.)
Levels were taken on 04/04/16 @ 1250.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/09/16 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0925

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 96.74 (ft.)

Ground Water Elev. 504.58 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.77	7.77	7.77	(std.)
SC	1,233	1232	1,232	(umhos/cm)
Temp.	12.01	11.98	11.98	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 54°F, Cloudy, SE winds @ 15-20 mph

Other: *Reference Measurement

Depth To Water from L.S. = 96.74 - 2.70 = 94.04 (ft.)

Levels were taken on 04/04/16 @ 1318.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-8

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/09/16 Start Purge: 1255 (2400 Hr. Clock) End Purge: 1310

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.42 (ft.)
Ground Water Elev. 506.27 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.43	7.39	7.39	(std.)
SC	922	920	920	(umhos/cm)
Temp.	12.63	12.59	12.59	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, N. Odor
Weather Conditions: 59°F, Cloudy, SE winds 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.42 - 2.18 = 78.24 (ft.)
Levels were taken on 05/04/16 @ 1330.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/10/16 Start Purge: 1015 (2400 Hr. Clock) End Purge: 1031

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.21

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.31 (ft)

Ref. Measuring Pt. TIC

Well Elevation *524.40 (ft./msl)

Water Level 2.53 (ft.)

Ground Water Elev. 521.87 (ft./msl)

Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.65	7.68	7.68	(std.)
SC	1,254	1,255	1,255	(umhos/cm)
Temp.	12.13	12.26	12.26	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 61°F, Rain, SE winds 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 2.53 - 2.31 = 0.22 (ft)

Levels were taken on 04/04/16 @ 1127.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/11/16 Start Purge: 0830 (2400 Hr. Clock) End Purge: 0850

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 51.32 (ft.)
Ground Water Elev. 529.01 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.54	7.52	7.52	(std.)
SC	1590	1590	1590	(umhos/cm)
Temp.	11.94	12.19	12.19	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 61°F, Fog, E winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 51.32 - 2.78 = 48.54 (ft.)
Levels were taken on 04/04/16 @ 1145.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111220-11

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/12/16 Start Purge: 0900 (2400 Hr. Clock) End Purge: 0914

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.97 (ft)

Ref. Measuring Pt. TIC

Well Elevation *603.31 (ft./msl)

Water Level 67.28 (ft.)

Ground Water Elev. 536.03 (ft./msl)

Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.36	7.37	7.37	(std.)
SC	1,092	1,098	1,098	(umhos/cm)
Temp.	14.13	14.14	14.14	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 67 °F, Cloudy, W winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 67.28 - 2.97 = 64.31 (ft.)

Levels were taken on 04/04/16 @ 1200.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-73050.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-111220-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/2/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	904.0/PrecSep_0 Standard Target List	903.0/PrecSep_21 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
T03S (500-111220-1)	5/5/16	09:40 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-111220-2)	5/5/16	11:29 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-111220-3)	5/5/16	11:29 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G48S (500-111220-4)	5/5/16	13:45 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		05/06/16 1600	TAL		5.7.16 0830	TASR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

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6/7/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-73050.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-111220-1

Address: 13715 Rider Trail North, ,	Due Date Requested: 5/26/2016
City: Earth City	TAT Requested (days):
State, Zip: MO, 63045	PO #:
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:
Email:	Project #: 50011504
Project Name: Joliet #9 CCR	SSOW#:
Site: NRG Midwest Generation LSQ Joliet #9 CCR	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
G47S (500-111220-5)	5/6/16	09:30 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-111220-6)	5/6/16	11:52 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 05/06/16 1600	Company TAL	Received by:	Date/Time: 5/7/16 0830	Company FAST		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

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6/7/2016

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-111220 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 (3 per sample) | Total Metals | Cl, Fl, SO4, TDS

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228 (3 per sample)	Total Metals	Cl, Fl, SO4, TDS	Comments
1		T035	05/05/16	0940	5	GW	1	1	1	
2		R325	05/05/16	1129	5	GW	1	1	1	
3		DUP	05/05/16	1129	5	GW	1	1	1	DUP is from R325
4		G485	05/05/16	1345	5	GW	1	1	1	

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Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	05/05/16	1655	Sherri Scott	TA-CHI	5/5/16	1655
Sherri Scott	TA-CHI	5/6/16	0820				

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
M – Miscellaneous
O – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

5/12/2016

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-111220 COC

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.9

(optional) Report To	(optional) Bill To
Contact:	Contact:
Company:	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client	Client Project #
Midwest Generation EME LLC	
Project Name	**Parameter**
Joliet #9 CCR - 1Q16 GW	
Project Location/State	**Lab Project #**
Joliet, IL	
Sampler	**Lab PM**
Noe L, Andrew N.	Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228 (3 per sample)	Total Metals	Cl, Fl, SO4, TDS							
5		G47S	05/06/16	0930	5	W		1	1	1							
6		R08S	05/06/16	1152	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/06/16	1440	[signature]	TA-CHT	5/6/16	1440
[signature]	TA-CHT	5/6/16	1450				

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
M – Miscellaneous	DW – Drinking Water
O – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TAL-4124-500 (1209)

9/7/2016

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-111220-1

Login Number: 111220
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2,2.9,2.7,3.9,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Client Sample ID: T03S

Lab Sample ID: 500-111220-1

Date Collected: 05/05/16 09:40

Matrix: GW

Date Received: 05/05/16 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:18	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 19:38	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	338180	06/02/16 16:01	FXG	TAL CHI
Total/NA	Prep	7470A			334609	05/09/16 17:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	334804	05/10/16 13:52	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334657	05/09/16 21:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:11	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	335515	05/14/16 21:58	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	335539		CLB	TAL CHI
					(Start)	05/16/16 00:26		
					(End)	05/16/16 00:27		
Total/NA	Analysis	Field Sampling		1	335829	05/05/16 09:40	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-111220-2

Date Collected: 05/05/16 11:29

Matrix: GW

Date Received: 05/05/16 16:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:22	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 19:42	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	338180	06/02/16 16:04	FXG	TAL CHI
Total/NA	Prep	7470A			334609	05/09/16 17:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	334804	05/10/16 13:54	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334657	05/09/16 21:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:12	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	335515	05/14/16 22:01	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	335539		CLB	TAL CHI
					(Start)	05/16/16 00:27		
					(End)	05/16/16 00:28		
Total/NA	Analysis	Field Sampling		1	335829	05/05/16 11:29	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Client Sample ID: DUP

Date Collected: 05/05/16 11:29
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:26	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 19:45	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	338180	06/02/16 16:08	FXG	TAL CHI
Total/NA	Prep	7470A			334609	05/09/16 17:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	334804	05/10/16 13:55	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334657	05/09/16 21:11	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:13	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	335515	05/14/16 22:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	336325		CLB	TAL CHI
					(Start)	05/20/16 07:40		
					(End)	05/20/16 07:41		
Total/NA	Analysis	Field Sampling		1	335829	05/05/16 11:29	JVB	TAL CHI

Client Sample ID: G48S

Date Collected: 05/05/16 13:45
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-4

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:30	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 19:49	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	338180	06/02/16 16:12	FXG	TAL CHI
Total/NA	Prep	7470A			334609	05/09/16 17:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	334804	05/10/16 13:57	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334657	05/09/16 21:14	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:14	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 17:35	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	336325		CLB	TAL CHI
					(Start)	05/20/16 07:41		
					(End)	05/20/16 07:42		
Total/NA	Analysis	Field Sampling		1	335829	05/05/16 13:45	JVB	TAL CHI

Client Sample ID: G47S

Date Collected: 05/06/16 09:30
Date Received: 05/06/16 14:40

Lab Sample ID: 500-111220-5

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Client Sample ID: G47S

Date Collected: 05/06/16 09:30
Date Received: 05/06/16 14:40

Lab Sample ID: 500-111220-5

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:36	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 19:53	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	337991	06/01/16 12:42	FXG	TAL CHI
Total/NA	Prep	7470A			334609	05/09/16 17:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	334804	05/10/16 13:59	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334657	05/09/16 21:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:15	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 17:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	336325		CLB	TAL CHI
					(Start)	05/20/16 07:42		
					(End)	05/20/16 07:43		
Total/NA	Analysis	Field Sampling		1	335829	05/06/16 09:30	JVB	TAL CHI

Client Sample ID: R08S

Date Collected: 05/06/16 11:52
Date Received: 05/06/16 14:40

Lab Sample ID: 500-111220-6

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:41	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 19:57	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	337991	06/01/16 12:46	FXG	TAL CHI
Total/NA	Prep	7470A			334609	05/09/16 17:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	334804	05/10/16 14:05	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334657	05/09/16 21:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:16	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 17:44	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	336829		CLB	TAL CHI
					(Start)	05/24/16 07:55		
					(End)	05/24/16 07:56		
Total/NA	Analysis	Field Sampling		1	335829	05/06/16 11:52	JVB	TAL CHI

Client Sample ID: G46S

Date Collected: 05/09/16 09:25
Date Received: 05/10/16 07:20

Lab Sample ID: 500-111220-7

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:45	PJ1	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 20:01	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	337991	06/01/16 12:50	FXG	TAL CHI
Total/NA	Prep	7470A			334790	05/10/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	335009	05/11/16 09:40	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334896	05/11/16 04:40	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:16	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 17:47	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	336829		CLB	TAL CHI
					(Start)	05/24/16 07:56		
					(End)	05/24/16 07:57		
Total/NA	Analysis	Field Sampling		1	335829	05/09/16 09:25	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 05/09/16 13:10
Date Received: 05/10/16 07:20

Lab Sample ID: 500-111220-8
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:50	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 20:12	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	337991	06/01/16 12:53	FXG	TAL CHI
Total/NA	Prep	7470A			334790	05/10/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	335009	05/11/16 12:15	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334896	05/11/16 04:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	336543	05/20/16 21:41	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 17:49	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	336829		CLB	TAL CHI
					(Start)	05/24/16 07:59		
					(End)	05/24/16 08:00		
Total/NA	Analysis	Field Sampling		1	335829	05/09/16 13:10	JVB	TAL CHI

Client Sample ID: G30S

Date Collected: 05/10/16 10:31
Date Received: 05/10/16 15:30

Lab Sample ID: 500-111220-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	335094	05/11/16 18:54	PJ1	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	338008	05/11/16 20:16	PFK	TAL CHI
Total Recoverable	Prep	3005A			334944	05/11/16 08:39	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	337991	06/01/16 13:06	FXG	TAL CHI
Total/NA	Prep	7470A			335066	05/11/16 15:30	MJD	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Client Sample ID: G30S

Date Collected: 05/10/16 10:31
Date Received: 05/10/16 15:30

Lab Sample ID: 500-111220-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	335163	05/12/16 10:37	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	334896	05/11/16 04:46	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 18:01	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	336829		CLB	TAL CHI
					(Start)	05/24/16 08:00		
					(End)	05/24/16 08:01		
Total/NA	Analysis	Field Sampling		1	335829	05/10/16 10:31	JVB	TAL CHI

Client Sample ID: G20S

Date Collected: 05/11/16 08:50
Date Received: 05/11/16 15:35

Lab Sample ID: 500-111220-10

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			335892	05/17/16 15:24	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	336164	05/18/16 19:06	PJ1	TAL CHI
Total Recoverable	Prep	3005A			335892	05/17/16 15:24	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	336337	05/19/16 18:25	FXG	TAL CHI
Total Recoverable	Prep	3005A			335892	05/17/16 15:24	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	336668	05/20/16 18:05	PFK	TAL CHI
Total/NA	Prep	7470A			335256	05/12/16 17:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	335703	05/16/16 17:00	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	335087	05/12/16 02:10	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	336543	05/20/16 21:44	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 18:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	336829		CLB	TAL CHI
					(Start)	05/24/16 08:01		
					(End)	05/24/16 08:02		
Total/NA	Analysis	Field Sampling		1	335829	05/11/16 08:50	JVB	TAL CHI

Client Sample ID: G45S

Date Collected: 05/12/16 09:14
Date Received: 05/13/16 08:40

Lab Sample ID: 500-111220-11

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			335892	05/17/16 15:24	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	336164	05/18/16 19:11	PJ1	TAL CHI
Total Recoverable	Prep	3005A			335892	05/17/16 15:24	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	336337	05/19/16 18:29	FXG	TAL CHI
Total Recoverable	Prep	3005A			335892	05/17/16 15:24	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	336668	05/20/16 18:09	PFK	TAL CHI
Total/NA	Prep	7470A			336084	05/18/16 15:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	336216	05/19/16 11:26	MJD	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	335525	05/15/16 18:10	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	336543	05/20/16 22:19	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	336515	05/21/16 18:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	336829		CLB	TAL CHI
					(Start)	05/24/16 08:02		
					(End)	05/24/16 08:03		
Total/NA	Analysis	Field Sampling		1	335829	05/12/16 09:14	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-111220-2
Client Project/Site: Joliet #9 CCR - May 2016 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
6/24/2016 9:42:37 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-111220-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-111220-2

Comments
No additional comments.

Receipt
The samples were received on 5/5/2016 4:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 2.7º C, 2.9º C, 3.2º C, 3.2º C, 3.9º C and 4.9º C.

RAD
Method(s) 904.0: Radium-228 Prep Batch 160-256817:
The radium-228 detection goal was not met for the following sample due to insufficient sample available for analysis (due to re-analysis): G45S (500-111220-11). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep_0: Radium-228 Batch 160-253559:
The following samples were unable to be prepared at full aliquot due to re-analysis: G45S (500-111220-11) and (500-111220-D-11 DU). Re-analysis was required because the initial preparation was plated out of order (see NCM #85329).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-111220-1	T03S	GW	05/05/16 09:40	05/05/16 16:55
500-111220-2	R32S	GW	05/05/16 11:29	05/05/16 16:55
500-111220-3	DUP	Water	05/05/16 11:29	05/05/16 16:55
500-111220-4	G48S	GW	05/05/16 13:45	05/05/16 16:55
500-111220-5	G47S	GW	05/06/16 09:30	05/06/16 14:40
500-111220-6	R08S	GW	05/06/16 11:52	05/06/16 14:40
500-111220-7	G46S	GW	05/09/16 09:25	05/10/16 07:20
500-111220-8	G44S	GW	05/09/16 13:10	05/10/16 07:20
500-111220-9	G30S	Water	05/10/16 10:31	05/10/16 15:30
500-111220-10	G20S	GW	05/11/16 08:50	05/11/16 15:35
500-111220-11	G45S	GW	05/12/16 09:14	05/13/16 08:40

Client Sample ID: T03S

Date Collected: 05/05/16 09:40
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-1

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.733		0.126	0.142	1.00	0.0698	pCi/L	05/11/16 15:38	06/02/16 18:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.3*		*40 - 110*	*05/11/16 15:38*	*06/02/16 18:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.702		0.276	0.283	1.00	0.384	pCi/L	05/11/16 16:41	05/24/16 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.3*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*
Y Carrier	*89.0*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.43		0.303	0.317	5.00	0.384	pCi/L		06/23/16 18:34	1

Client Sample ID: R32S

Date Collected: 05/05/16 11:29
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-2

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.54		0.169	0.218	1.00	0.0670	pCi/L	05/11/16 15:38	06/02/16 18:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*05/11/16 15:38*	*06/02/16 18:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.725		0.288	0.295	1.00	0.400	pCi/L	05/11/16 16:41	05/24/16 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*
Y Carrier	*87.5*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.26		0.333	0.367	5.00	0.400	pCi/L		06/23/16 18:34	1

Client Sample ID: DUP

Date Collected: 05/05/16 11:29
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.52		0.169	0.217	1.00	0.0735	pCi/L	05/11/16 15:38	06/02/16 18:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*05/11/16 15:38*	*06/02/16 18:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.737		0.301	0.308	1.00	0.426	pCi/L	05/11/16 16:41	05/24/16 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*
Y Carrier	*89.0*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.26		0.345	0.377	5.00	0.426	pCi/L		06/23/16 18:34	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Client Sample ID: G48S
Date Collected: 05/05/16 13:45
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-4
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.671**		0.113	0.128	1.00	0.0655	pCi/L	05/11/16 15:38	06/02/16 18:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*05/11/16 15:38*	*06/02/16 18:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.129	U	0.238	0.239	1.00	0.406	pCi/L	05/11/16 16:41	05/24/16 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.800**		0.264	0.271	5.00	0.406	pCi/L		06/23/16 18:34	1

Client Sample ID: G47S

Date Collected: 05/06/16 09:30
Date Received: 05/06/16 14:40

Lab Sample ID: 500-111220-5

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.622**		0.118	0.131	1.00	0.102	pCi/L	05/11/16 15:38	06/02/16 18:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*05/11/16 15:38*	*06/02/16 18:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.113	U	0.218	0.218	1.00	0.373	pCi/L	05/11/16 16:41	05/24/16 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*
Y Carrier	*89.0*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.736**		0.248	0.254	5.00	0.373	pCi/L		06/23/16 18:34	1

Client Sample ID: R08S

Date Collected: 05/06/16 11:52
Date Received: 05/06/16 14:40

Lab Sample ID: 500-111220-6

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.618		0.105	0.119	1.00	0.0537	pCi/L	05/11/16 15:38	06/02/16 18:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*05/11/16 15:38*	*06/02/16 18:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.462		0.232	0.236	1.00	0.339	pCi/L	05/11/16 16:41	05/24/16 12:49	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*
Y Carrier	*93.8*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:49*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08		0.255	0.264	5.00	0.339	pCi/L		06/23/16 18:34	1

Client Sample ID: G46S

Date Collected: 05/09/16 09:25
Date Received: 05/10/16 07:20

Lab Sample ID: 500-111220-7

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.02		0.126	0.156	1.00	0.0581	pCi/L	05/12/16 12:53	06/03/16 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/12/16 12:53*	*06/03/16 11:16*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.835		0.329	0.337	1.00	0.456	pCi/L	05/12/16 13:26	05/24/16 16:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:39*	*1*
Y Carrier	*87.1*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.85		0.352	0.372	5.00	0.456	pCi/L		06/23/16 18:34	1

Client Sample ID: G44S

Date Collected: 05/09/16 13:10
Date Received: 05/10/16 07:20

Lab Sample ID: 500-111220-8

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.323		0.0761	0.0814	1.00	0.0585	pCi/L	05/12/16 12:53	06/03/16 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*05/12/16 12:53*	*06/03/16 11:16*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0788	U	0.240	0.240	1.00	0.415	pCi/L	05/12/16 13:26	05/24/16 16:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.7*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:39*	*1*
Y Carrier	*83.0*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.401	U	0.251	0.253	5.00	0.415	pCi/L		06/23/16 18:34	1

Client Sample ID: G30S

Date Collected: 05/10/16 10:31
Date Received: 05/10/16 15:30

Lab Sample ID: 500-111220-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.711		0.108	0.125	1.00	0.0592	pCi/L	05/12/16 12:53	06/03/16 11:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.9*		*40 - 110*	*05/12/16 12:53*	*06/03/16 11:16*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.698		0.349	0.355	1.00	0.510	pCi/L	05/12/16 13:26	05/24/16 16:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.9*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:39*	*1*
Y Carrier	*57.2*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.41		0.365	0.376	5.00	0.510	pCi/L		06/23/16 18:34	1

Client Sample ID: G20S

Date Collected: 05/11/16 08:50
Date Received: 05/11/16 15:35

Lab Sample ID: 500-111220-10

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.61		0.160	0.216	1.00	0.0737	pCi/L	05/13/16 13:51	06/07/16 08:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.6*		*40 - 110*	*05/13/16 13:51*	*06/07/16 08:07*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.907		0.309	0.320	1.00	0.405	pCi/L	05/13/16 14:19	05/25/16 16:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.6*		*40 - 110*	*05/13/16 14:19*	*05/25/16 16:12*	*1*
Y Carrier	*84.1*		*40 - 110*	*05/13/16 14:19*	*05/25/16 16:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.52		0.348	0.386	5.00	0.405	pCi/L		06/23/16 18:34	1

Client Sample ID: G45S

Date Collected: 05/12/16 09:14
Date Received: 05/13/16 08:40

Lab Sample ID: 500-111220-11

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.96**		0.340	0.383	1.00	0.208	pCi/L	05/26/16 19:14	06/17/16 07:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.8*		*40 - 110*	*05/26/16 19:14*	*06/17/16 07:38*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.04	U G	1.00	1.01	1.00	1.62	pCi/L	06/16/16 16:36	06/22/16 13:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*06/16/16 16:36*	*06/22/16 13:30*	*1*
Y Carrier	*92.3*		*40 - 110*	*06/16/16 16:36*	*06/22/16 13:30*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**3.01**		1.06	1.08	5.00	1.62	pCi/L		06/23/16 18:34	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 250649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	PrecSep-21	
500-111220-2	R32S	Total/NA	GW	PrecSep-21	
500-111220-3	DUP	Total/NA	Water	PrecSep-21	
500-111220-4	G48S	Total/NA	GW	PrecSep-21	
500-111220-5	G47S	Total/NA	GW	PrecSep-21	
500-111220-6	R08S	Total/NA	GW	PrecSep-21	
LCS 160-250649/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-250649/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 250655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-1	T03S	Total/NA	GW	PrecSep_0	
500-111220-2	R32S	Total/NA	GW	PrecSep_0	
500-111220-3	DUP	Total/NA	Water	PrecSep_0	
500-111220-4	G48S	Total/NA	GW	PrecSep_0	
500-111220-5	G47S	Total/NA	GW	PrecSep_0	
500-111220-6	R08S	Total/NA	GW	PrecSep_0	
LCS 160-250655/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-250655/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 250885

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-7	G46S	Total/NA	GW	PrecSep-21	
500-111220-7 DU	G46S	Total/NA	GW	PrecSep-21	
500-111220-8	G44S	Total/NA	GW	PrecSep-21	
500-111220-9	G30S	Total/NA	Water	PrecSep-21	
LCS 160-250885/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-250885/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 250887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-7	G46S	Total/NA	GW	PrecSep_0	
500-111220-7 DU	G46S	Total/NA	GW	PrecSep_0	
500-111220-8	G44S	Total/NA	GW	PrecSep_0	
500-111220-9	G30S	Total/NA	Water	PrecSep_0	
LCS 160-250887/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-250887/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Prep Batch: 250977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total/NA	GW	PrecSep-21	
500-111220-10 DU	G20S	Total/NA	GW	PrecSep-21	
LCS 160-250977/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
MB 160-250977/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 250984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-10	G20S	Total/NA	GW	PrecSep_0	
500-111220-10 DU	G20S	Total/NA	GW	PrecSep_0	
LCS 160-250984/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
MB 160-250984/1-A	Method Blank	Total/NA	Water	PrecSep_0	

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Prep Batch: 253555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-11	G45S	Total/NA	GW	PrecSep-21	
500-111220-11 DU	G45S	Total/NA	GW	PrecSep-21	
LCS 160-253555/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-253555/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	
MB 160-253555/1-A	Method Blank	Total/NA	Water	PrecSep-21	

Prep Batch: 256817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-111220-11	G45S	Total/NA	GW	PrecSep_0	
LCS 160-256817/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-256817/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	
MB 160-256817/1-A	Method Blank	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-250649/1-A
Matrix: Water
Analysis Batch: 254506

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250649

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.006197	U	0.0477	0.0477	1.00	0.0937	pCi/L	05/11/16 15:38	06/02/16 14:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.9*		*40 - 110*	*05/11/16 15:38*	*06/02/16 14:49*	*1*

Lab Sample ID: LCS 160-250649/2-A
Matrix: Water
Analysis Batch: 254480

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250649

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	12.01		1.17	1.00	0.0991	pCi/L	108	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.0*		*40 - 110*

Lab Sample ID: MB 160-250885/1-A
Matrix: Water
Analysis Batch: 254782

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250885

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.09917		0.0553	0.0560	1.00	0.0773	pCi/L	05/12/16 12:53	06/03/16 07:38	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*05/12/16 12:53*	*06/03/16 07:38*	*1*

Lab Sample ID: LCS 160-250885/2-A
Matrix: Water
Analysis Batch: 254782

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250885

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	10.48		1.02	1.00	0.0741	pCi/L	94	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.7*		*40 - 110*

Lab Sample ID: 500-111220-7 DU
Matrix: GW
Analysis Batch: 254782

Client Sample ID: G46S
Prep Type: Total/NA
Prep Batch: 250885

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.02			1.374		0.192	1.00	0.0626	pCi/L			1.03	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 500-111220-7 DU
Matrix: GW
Analysis Batch: 254782

Client Sample ID: G46S
Prep Type: Total/NA
Prep Batch: 250885

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	100		40 - 110

Lab Sample ID: MB 160-250977/1-A
Matrix: Water
Analysis Batch: 255209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250977

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07896		0.0504	0.0509	1.00	0.0724	pCi/L	05/13/16 13:51	06/07/16 08:06	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	90.3		40 - 110	05/13/16 13:51	06/07/16 08:06	1

Lab Sample ID: LCS 160-250977/2-A
Matrix: Water
Analysis Batch: 255209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250977

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	13.35		1.28	1.00	0.0719	pCi/L	120	68 - 137		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	91.5		40 - 110

Lab Sample ID: 500-111220-10 DU
Matrix: GW
Analysis Batch: 255209

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 250977

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.61			1.469		0.204	1.00	0.0816	pCi/L			0.34	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	87.7		40 - 110

Lab Sample ID: MB 160-253555/1-A
Matrix: Water
Analysis Batch: 256885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 253555

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07517	U	0.0631	0.0635	1.00	0.0934	pCi/L	05/26/16 19:14	06/17/16 07:38	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	78.6		40 - 110	05/26/16 19:14	06/17/16 07:38	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-253555/2-A
Matrix: Water
Analysis Batch: 256885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 253555

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	15.15		1.51	1.00	0.152	pCi/L	136	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*75.2*		*40 - 110*

Lab Sample ID: LCSD 160-253555/3-A
Matrix: Water
Analysis Batch: 256886

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 253555

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			11.2	15.24		1.50	1.00	0.120	pCi/L	137	68 - 137	0.03	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*74.4*		*40 - 110*

Lab Sample ID: 500-111220-11 DU
Matrix: GW
Analysis Batch: 256885

Client Sample ID: G45S
Prep Type: Total/NA
Prep Batch: 253555

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.96			1.794		0.386	1.00	0.229	pCi/L			0.22	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*75.5*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-250655/1-A
Matrix: Water
Analysis Batch: 252886

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250655

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.01929	U	0.241	0.241	1.00	0.431	pCi/L	05/11/16 16:41	05/24/16 12:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.9*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:47*	*1*
Y Carrier	*88.2*		*40 - 110*	*05/11/16 16:41*	*05/24/16 12:47*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-250655/2-A
Matrix: Water
Analysis Batch: 252886

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250655

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	16.76		1.78	1.00	0.423	pCi/L	111	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.0*		*40 - 110*
Y Carrier	*84.9*		*40 - 110*

Lab Sample ID: MB 160-250887/1-A
Matrix: Water
Analysis Batch: 252885

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250887

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4470		0.285	0.288	1.00	0.442	pCi/L	05/12/16 13:26	05/24/16 16:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.7*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:28*	*1*
Y Carrier	*81.9*		*40 - 110*	*05/12/16 13:26*	*05/24/16 16:28*	*1*

Lab Sample ID: LCS 160-250887/2-A
Matrix: Water
Analysis Batch: 252885

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250887

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	18.66		1.94	1.00	0.461	pCi/L	123	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*99.7*		*40 - 110*
Y Carrier	*83.0*		*40 - 110*

Lab Sample ID: 500-111220-7 DU
Matrix: GW
Analysis Batch: 252886

Client Sample ID: G46S
Prep Type: Total/NA
Prep Batch: 250887

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.835			0.6922		0.307	1.00	0.436	pCi/L			0.22	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*100*		*40 - 110*
Y Carrier	*80.4*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-250984/1-A
Matrix: Water
Analysis Batch: 253018

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 250984

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.004694	U	0.226	0.226	1.00	0.407	pCi/L	05/13/16 14:19	05/25/16 16:11	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.3*		*40 - 110*	*05/13/16 14:19*	*05/25/16 16:11*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/13/16 14:19*	*05/25/16 16:11*	*1*

Lab Sample ID: LCS 160-250984/2-A
Matrix: Water
Analysis Batch: 253018

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 250984

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.1	19.22		2.04	1.00	0.433	pCi/L	127	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.5*		*40 - 110*
Y Carrier	*81.9*		*40 - 110*

Lab Sample ID: 500-111220-10 DU
Matrix: GW
Analysis Batch: 253018

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 250984

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.907			1.368		0.400	1.00	0.494	pCi/L			0.64	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*87.7*		*40 - 110*
Y Carrier	*86.4*		*40 - 110*

Lab Sample ID: MB 160-256817/1-A
Matrix: Water
Analysis Batch: 257505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 256817

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.07390	U	0.237	0.237	1.00	0.433	pCi/L	06/16/16 16:36	06/22/16 13:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*06/16/16 16:36*	*06/22/16 13:20*	*1*
Y Carrier	*90.8*		*40 - 110*	*06/16/16 16:36*	*06/22/16 13:20*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-256817/2-A
Matrix: Water
Analysis Batch: 257505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 256817

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			15.0	17.14		1.81	1.00	0.392	pCi/L	114	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*88.6*		*40 - 110*
Y Carrier	*92.7*		*40 - 110*

Lab Sample ID: LCSD 160-256817/3-A
Matrix: Water
Analysis Batch: 257505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 256817

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			15.0	16.99		1.78	1.00	0.351	pCi/L	113	56 - 140	0.04	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*90.0*		*40 - 110*
Y Carrier	*93.1*		*40 - 110*

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-111220 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220
Chain of Custody Number:
Page _____ of _____
Temperature °C of Cooler: 3.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228 (3 per sample)	Total Metals	Cl, Fl, SO4, TDS							
1		T03S	05/05/16	0940	5	W		1	1	1							
2		R32S	05/05/16	1129	5	W		1	1	1							
3		DUP	05/05/16	1129	5	W		1	1	1							DUP is from R32S
4		G48S	05/05/16	1345	5	W		1	1	1							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TBL	05/05/16	1655	[signature]	TA-CHI	5/5/16	1655
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-8007(1609)

6/24/2016

TestAmerica

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Phone: 708.534.5200 Fax: 708.534

500-111220 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: 2.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Erik Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228 (3 per sample)	Total Metals	Cl, Fl, SO4, TDS							
5		G47S	05/06/16	0930	5	W		1	1	1							
6		R08S	05/06/16	1152	5	W		1	1	1							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	05/06/16	1440	[illegible]	TA-CHI	5/6/16	1440
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500-(1809)

6/24/2016

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-111220 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.7

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							Comments
7		G46S	05/09/16	0925	5	W		1	1	1							
8		G44S	05/09/16	1310	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TML	05/09/16	1615	[signature]	TA-CDR	5/10/16	0720
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124 (606/1209)

6/24/2016

TestAmerica

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2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

500-111220 COC

Chain of Custody Record

Lab Job #: 500 - 111220
Chain of Custody Number:
Page _____ of _____
Temperature °C of Cooler: 4.9

Client	Client Project #
Midwest Generation	EME LLC
Project Name: Joliet #9 CCR - 1Q16 GW	
Project Location/State: Joliet, IL.	Lab Project #
Sampler: Noe L., Andrew N.	Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, Sulf, TDS							
9		G305	05/16/16	1031	5 4	W		✓	✓	✓							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/10/16	1530	[signature]	TAL	05/10/16	1530
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier ✓
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

6/24/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Long

Preservative / Parameter

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	3 Radium 224/226	3 Total Metals	8 Cl, Fl, SO4, TDS							Comments
10		GZ05	05/11/16	0850	4	W	1	1	1							

500-111220 COC

8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/11/16	1535				
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL 4124 600 (1209)

6/24/2016

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-111220 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.2

Client	Client Project #	Preservative	3	3	8						
Midwest Generation EME LLC											
Project Name: Joliet #9 CCR-1216 GW		Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
Project Location/State: Joliet, IL	Lab Project #										
Sampler: Noe L, Andrew N.	Lab PM: Eric Lang										

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix							
11		645 S	05/12/16	0914	5	W	-	-	-				

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
9 S	TAL	05/12/16	1515	[signature]	TA-CAN	5/13/16	0840
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-73050.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-111220-2

Address: 13715 Rider Trail North, ,	Due Date Requested: 6/2/2016
City: Earth City	TAT Requested (days):
State, Zip: MO, 63045	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:
Email:	WO #:
Project Name: Joliet #9 CCR	Project #: 50011504
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	904.0/PrecSep_0 Standard Target List	903.0/PrecSep_21 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
T03S (500-111220-1)	5/5/16	09:40 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-111220-2)	5/5/16	11:29 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-111220-3)	5/5/16	11:29 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G48S (500-111220-4)	5/5/16	13:45 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	05/06/16 1600	TAL	Ali Clark	5.7.16 0830	TASR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/24/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-73050.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-111220-1

Address: 13715 Rider Trail North, ,	Due Date Requested: 5/26/2016
City: Earth City	TAT Requested (days):
State, Zip: MO, 63045	PO #:
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:
Email:	Project #: 50011504
Project Name: Joliet #9 CCR	SSOW#:
Site: NRG Midwest Generation LSQ Joliet #9 CCR	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
G47S (500-111220-5)	5/6/16	09:30 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-111220-6)	5/6/16	11:52 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 05/06/16 1600	Company TAL	Received by:	Date/Time: 5/7/16 0830	Company FASTL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-111220 COC

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.2

Report To (optional)	Bill To (optional)
Contact:	Contact:
Company:	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client	Client Project #
Midwest Generation EME LLC	
Project Name	
Joliet #9 CCR - 1Q16 GW	
Project Location/State	**Lab Project #**
Joliet, IL.	
Sampler	**Lab PM**
Noe L, Andrew N.	Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226/228 (3 per sample)	Parameter: Total Metals	Parameter: Cl, Fl, SO4, TDS	Comments
								3	3	8	
1		T035	05/05/16	0940	5	W		1	1	1	
2		R325	05/05/16	1129	5	W		1	1	1	
3		DUP	05/05/16	1129	5	W		1	1	1	DUP is from R325
4		G485	05/05/16	1345	5	W		1	1	1	

Page 34 of 50

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	05/05/16	1655	Sherri Scott	TA-CHI	5/5/16	1655
Sherri Scott	TA-CHI	5/6/16	0820				

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
M – Miscellaneous	DW – Drinking Water
O – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

6/24/2016

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-111220 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228 (3 per samp lot)	Total Metals	Cl, Fl, SO4, TDS						
5		G47S	05/06/16	0930	5	W		1	1	1						
6		R08S	05/06/16	1152	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Page 35 of 50

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/06/16	1440	[signature]	TA-CHI	5/6/16	1440
[signature]	TA-CHI	5/6/16	1450				

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
M – Miscellaneous
O – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-73093.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-111220-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/17/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G30S (500-111220-9)	5/10/16	10:31 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	05.10.16 1600	TAL	[signature] Clark	5.11.16 0920	TA STL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/24/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-73081.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-111220-1

Address: 13715 Rider Trail North, ,	Due Date Requested: 5/17/2016
City: Earth City	TAT Requested (days):
State, Zip: MO, 63045	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:
Email:	WO #:
Project Name: Joliet #9 CCR	Project #: 50011504
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G46S (500-111220-7)	5/9/16	09:25 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-111220-8)	5/9/16	13:10 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	05/10/16 1330	TAL	[signature]	5.11.16 0820	TA SR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Page 37 of 50

6/24/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-73159.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-111220-1

Address: 13715 Rider Trail North, ,	Due Date Requested: 5/17/2016
City: Earth City	TAT Requested (days):
State, Zip: MO, 63045	PO #:
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:
Email:	Project #: 50011504
Project Name: Joliet #9 CCR	SSOW#:
Site: NRG Midwest Generation LSQ Joliet #9 CCR	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-111220-10)	5/11/16	08:50 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*
Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	05/11/16 17:00	TALK	Gil Clark	5-12-16 0930	TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

6/24/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab) Client Contact: Shipping/Receiving Company: TestAmerica Laboratories, Inc.	Sampler: Phone:	Lab PM: Lang, Eric A. E-Mail: eric.lang@testamericainc.com	Carrier Tracking No(s):	COC No: 500-73241.1 Page: Page 1 of 1 Job #: 500-111220-2
Address: 13715 Rider Trail North, , City: Earth City State, Zip: MO, 63045 Phone: 314-298-8566(Tel) 314-298-8757(Fax) Email: Project Name: Joliet #9 CCR - 1Q16 GW Site: NRG Midwest Generation LSQ Joliet #9 CCR	Due Date Requested: 5/25/2016 TAT Requested (days): PO #: WO #: Project #: 50011504 SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G45S (500-111220-11)	5/12/16	09:14 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by: [signature]	Date/Time: 05/13/16 10:00	Company: TA CHI	Received by: [signature]	Date/Time: 5.14.16 0825	Company: TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/24/2016

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-111220 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-111220

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q16 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
11		645 S	05/12/16	0914	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	05/12/16	1515	[illegible]	TA-CHI	5/13/16	0840
[illegible]	TA-CHI	5/13/16	1600				

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

6/24/2016

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-111220-2

Login Number: 111220
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2,2.9,2.7,3.9,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-111220-2

Login Number: 111220
List Number: 2
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 05/09/16 12:24 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	17.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-111220-2

Login Number: 111220
List Number: 3
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 05/11/16 02:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.6, 20.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-111220-2

Login Number: 111220
List Number: 4
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 05/12/16 03:07 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.1
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-111220-2

Login Number: 111220
List Number: 5
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 05/14/16 10:53 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	17.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Client Sample ID: T03S
Date Collected: 05/05/16 09:40
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-1
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250649	05/11/16 15:38	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254480	06/02/16 18:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250655	05/11/16 16:41	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 12:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: R32S
Date Collected: 05/05/16 11:29
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-2
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250649	05/11/16 15:38	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254480	06/02/16 18:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250655	05/11/16 16:41	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 12:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: DUP
Date Collected: 05/05/16 11:29
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250649	05/11/16 15:38	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254480	06/02/16 18:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250655	05/11/16 16:41	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 12:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: G48S
Date Collected: 05/05/16 13:45
Date Received: 05/05/16 16:55

Lab Sample ID: 500-111220-4
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250649	05/11/16 15:38	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254480	06/02/16 18:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250655	05/11/16 16:41	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 12:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Client Sample ID: G47S

Lab Sample ID: 500-111220-5

Date Collected: 05/06/16 09:30
Matrix: GW
Date Received: 05/06/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250649	05/11/16 15:38	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254480	06/02/16 18:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250655	05/11/16 16:41	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 12:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: R08S

Lab Sample ID: 500-111220-6

Date Collected: 05/06/16 11:52
Matrix: GW
Date Received: 05/06/16 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250649	05/11/16 15:38	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254480	06/02/16 18:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250655	05/11/16 16:41	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 12:49	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: G46S

Lab Sample ID: 500-111220-7

Date Collected: 05/09/16 09:25
Matrix: GW
Date Received: 05/10/16 07:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250885	05/12/16 12:53	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254782	06/03/16 11:16	ALS	TAL SL
Total/NA	Prep	PrecSep_0			250887	05/12/16 13:26	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 16:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: G44S

Lab Sample ID: 500-111220-8

Date Collected: 05/09/16 13:10
Matrix: GW
Date Received: 05/10/16 07:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250885	05/12/16 12:53	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254782	06/03/16 11:16	ALS	TAL SL
Total/NA	Prep	PrecSep_0			250887	05/12/16 13:26	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 16:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Client Sample ID: G30S

Date Collected: 05/10/16 10:31
Date Received: 05/10/16 15:30

Lab Sample ID: 500-111220-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250885	05/12/16 12:53	MCJ	TAL SL
Total/NA	Analysis	903.0		1	254782	06/03/16 11:16	ALS	TAL SL
Total/NA	Prep	PrecSep_0			250887	05/12/16 13:26	MCJ	TAL SL
Total/NA	Analysis	904.0		1	252886	05/24/16 16:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: G20S

Date Collected: 05/11/16 08:50
Date Received: 05/11/16 15:35

Lab Sample ID: 500-111220-10
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			250977	05/13/16 13:51	MCJ	TAL SL
Total/NA	Analysis	903.0		1	255209	06/07/16 08:07	RTM	TAL SL
Total/NA	Prep	PrecSep_0			250984	05/13/16 14:19	MCJ	TAL SL
Total/NA	Analysis	904.0		1	253018	05/25/16 16:12	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Client Sample ID: G45S

Date Collected: 05/12/16 09:14
Date Received: 05/13/16 08:40

Lab Sample ID: 500-111220-11
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			253555	05/26/16 19:14	MCJ	TAL SL
Total/NA	Analysis	903.0		1	256885	06/17/16 07:38	ALS	TAL SL
Total/NA	Prep	PrecSep_0			256817	06/16/16 16:36	MCJ	TAL SL
Total/NA	Analysis	904.0		1	257503	06/22/16 13:30	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	257758	06/23/16 18:34	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba (40-110)						
500-111220-1	T03S	88.3						
500-111220-2	R32S	85.2						
500-111220-4	G48S	84.6						
500-111220-5	G47S	84.6						
500-111220-6	R08S	90.9						
500-111220-7	G46S	104						
500-111220-7 DU	G46S	100						
500-111220-8	G44S	95.7						
500-111220-10	G20S	88.6						
500-111220-10 DU	G20S	87.7						
500-111220-11	G45S	71.8						
500-111220-11 DU	G45S	75.5						

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba (40-110)						
500-111220-3	DUP	83.2						
500-111220-9	G30S	98.9						
LCS 160-250649/2-A	Lab Control Sample	90.0						
LCS 160-250885/2-A	Lab Control Sample	99.7						
LCS 160-250977/2-A	Lab Control Sample	91.5						
LCS 160-253555/2-A	Lab Control Sample	75.2						
LCSD 160-253555/3-A	Lab Control Sample Dup	74.4						
MB 160-250649/1-A	Method Blank	88.9						
MB 160-250885/1-A	Method Blank	99.7						
MB 160-250977/1-A	Method Blank	90.3						
MB 160-253555/1-A	Method Blank	78.6						

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)					
500-111220-1	T03S	88.3	89.0					
500-111220-2	R32S	85.2	87.5					
500-111220-4	G48S	84.6	86.4					
500-111220-5	G47S	84.6	89.0					
500-111220-6	R08S	90.9	93.8					
500-111220-7	G46S	75.2	87.1					
500-111220-7 DU	G46S	100	80.4					

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - May 2016 GW

TestAmerica Job ID: 500-111220-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-111220-8	G44S	95.7	83.0
500-111220-10	G20S	88.6	84.1
500-111220-10 DU	G20S	87.7	86.4
500-111220-11	G45S	94.3	92.3

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-111220-3	DUP	83.2	89.0
500-111220-9	G30S	98.9	57.2
LCS 160-250655/2-A	Lab Control Sample	90.0	84.9
LCS 160-250887/2-A	Lab Control Sample	99.7	83.0
LCS 160-250984/2-A	Lab Control Sample	91.5	81.9
LCS 160-256817/2-A	Lab Control Sample	88.6	92.7
LCSD 160-256817/3-A	Lab Control Sample Dup	90.0	93.1
MB 160-250655/1-A	Method Blank	88.9	88.2
MB 160-250887/1-A	Method Blank	99.7	81.9
MB 160-250984/1-A	Method Blank	90.3	86.4
MB 160-256817/1-A	Method Blank	90.0	90.8

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-113652-1
Client Project/Site: Joliet #9 CCR - 2Q16 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
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Attn: Richard Gnat

Authorized for release by:
7/21/2016 4:08:36 PM

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Job ID: 500-113652-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-113652-1

Comments
No additional comments.

Receipt
The samples were received on 6/28/2016 3:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 11.0º C, 11.1º C, 13.4º C and 14.0º C.

Metals
Method(s) 6020A: The interference check standard solution (ICSA) associated with batch 500-343557 had results for Cadmium greater than the RL. The associated samples were below the RL and therefore reported.

Method(s) 6020A: The internal standard (Tb) was used to report the elements Lead and Thallium in batch 500-343677. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) SM 4500 Cl- E: The Chloride matrix spike / matrix spike duplicate (MS/MSD) recoveries for sample G30S (500-113652-6) in analytical batch 500-344361 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-113652-1	T03S	Water	06/28/16 09:50	06/28/16 15:25
500-113652-2	DUP	Water	06/28/16 09:50	06/28/16 15:25
500-113652-3	R08S	Water	06/28/16 13:59	06/28/16 15:25
500-113652-4	G20S	Water	06/29/16 09:25	06/29/16 16:00
500-113652-5	R32S	Water	06/29/16 14:44	06/29/16 16:00
500-113652-6	G30S	Water	06/30/16 09:27	06/30/16 16:35
500-113652-7	G45S	Water	06/30/16 11:20	06/30/16 16:35
500-113652-8	G44S	Water	06/30/16 13:06	06/30/16 16:35
500-113652-9	G46S	Water	06/30/16 14:40	06/30/16 16:35
500-113652-10	G48S	Water	07/01/16 09:34	07/01/16 13:25
500-113652-11	G47S	Water	07/01/16 11:25	07/01/16 13:25

Client Sample ID: T03S

Date Collected: 06/28/16 09:50
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.017**		0.010		mg/L		06/29/16 08:55	06/29/16 22:04	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/29/16 08:55	07/01/16 16:40	1
Arsenic	**0.0011**		0.0010		mg/L		06/29/16 08:55	07/13/16 16:31	1
Barium	**0.086**		0.0025		mg/L		06/29/16 08:55	07/01/16 16:40	1
Beryllium	<0.0010		0.0010		mg/L		06/29/16 08:55	07/01/16 16:40	1
Boron	**0.98**		0.050		mg/L		06/29/16 08:55	07/13/16 16:52	1
Cadmium	<0.00050		0.00050		mg/L		06/29/16 08:55	07/01/16 16:40	1
Calcium	**100**		0.20		mg/L		06/29/16 08:55	07/13/16 16:31	1
Chromium	<0.0050		0.0050		mg/L		06/29/16 08:55	07/01/16 16:40	1
Cobalt	**0.0011**		0.0010		mg/L		06/29/16 08:55	07/01/16 16:40	1
Lead	<0.00050		0.00050		mg/L		06/29/16 08:55	07/13/16 16:31	1
Molybdenum	**0.037**		0.0050		mg/L		06/29/16 08:55	07/01/16 16:40	1
Selenium	<0.0025		0.0025		mg/L		06/29/16 08:55	07/01/16 16:40	1
Thallium	<0.0020		0.0020		mg/L		06/29/16 08:55	07/13/16 16:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**910**		10		mg/L			06/29/16 04:13	1
Chloride	**94**		10		mg/L			07/19/16 18:59	5
Fluoride	**0.19**		0.10		mg/L			06/29/16 11:17	1
Sulfate	**180**		50		mg/L			07/08/16 08:20	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**134.26**				ft			06/28/16 09:50	1
Depth to water from land surface	**131.18**				ft			06/28/16 09:50	1
Elevation of well (ft from MP)	**629.65**				ft			06/28/16 09:50	1
Field pH	**7.30**				SU			06/28/16 09:50	1
Field Temperature	**59.7**				Degrees F			06/28/16 09:50	1
Ground Water Elevation	**495.39**				ft			06/28/16 09:50	1
Specific Conductance	**1438**				umhos/cm			06/28/16 09:50	1
Well bottom elevation	**456.70**				ft			06/28/16 09:50	1

Client Sample ID: DUP

Date Collected: 06/28/16 09:50
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.017**		0.010		mg/L		06/29/16 08:55	06/29/16 22:08	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/29/16 08:55	07/01/16 16:44	1
Arsenic	<0.0010		0.0010		mg/L		06/29/16 08:55	07/13/16 16:33	1
Barium	**0.086**		0.0025		mg/L		06/29/16 08:55	07/01/16 16:44	1
Beryllium	<0.0010		0.0010		mg/L		06/29/16 08:55	07/01/16 16:44	1
Boron	**0.99**		0.050		mg/L		06/29/16 08:55	07/13/16 16:57	1
Cadmium	<0.00050		0.00050		mg/L		06/29/16 08:55	07/01/16 16:44	1
Calcium	**110**		0.20		mg/L		06/29/16 08:55	07/13/16 16:33	1
Chromium	<0.0050		0.0050		mg/L		06/29/16 08:55	07/01/16 16:44	1
Cobalt	<0.0010		0.0010		mg/L		06/29/16 08:55	07/01/16 16:44	1
Lead	<0.00050		0.00050		mg/L		06/29/16 08:55	07/13/16 16:33	1
Molybdenum	**0.037**		0.0050		mg/L		06/29/16 08:55	07/01/16 16:44	1
Selenium	<0.0025		0.0025		mg/L		06/29/16 08:55	07/01/16 16:44	1
Thallium	<0.0020		0.0020		mg/L		06/29/16 08:55	07/13/16 16:33	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**910**		10		mg/L			06/29/16 04:20	1
Chloride	**96**		10		mg/L			07/19/16 18:59	5
Fluoride	**0.19**		0.10		mg/L			06/29/16 11:25	1
Sulfate	**180**		50		mg/L			07/08/16 08:23	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**134.26**				ft			06/28/16 09:50	1
Depth to water from land surface	**131.18**				ft			06/28/16 09:50	1
Elevation of well (ft from MP)	**629.65**				ft			06/28/16 09:50	1
Field pH	**7.30**				SU			06/28/16 09:50	1
Field Temperature	**59.7**				Degrees F			06/28/16 09:50	1
Ground Water Elevation	**495.39**				ft			06/28/16 09:50	1
Specific Conductance	**1438**				umhos/cm			06/28/16 09:50	1
Well bottom elevation	**456.70**				ft			06/28/16 09:50	1

Client Sample ID: R08S
Date Collected: 06/28/16 13:59
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-3
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.14**		0.010		mg/L		06/29/16 08:55	06/29/16 22:12	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/29/16 08:55	07/01/16 16:47	1
Arsenic	**0.0019**		0.0010		mg/L		06/29/16 08:55	07/13/16 16:41	1
Barium	**0.056**		0.0025		mg/L		06/29/16 08:55	07/01/16 16:47	1
Beryllium	<0.0010		0.0010		mg/L		06/29/16 08:55	07/01/16 16:47	1
Boron	**6.8**		0.50		mg/L		06/29/16 08:55	07/13/16 17:02	10
Cadmium	<0.00050		0.00050		mg/L		06/29/16 08:55	07/01/16 16:47	1
Calcium	**130**		0.20		mg/L		06/29/16 08:55	07/13/16 16:41	1
Chromium	<0.0050		0.0050		mg/L		06/29/16 08:55	07/01/16 16:47	1
Cobalt	<0.0010		0.0010		mg/L		06/29/16 08:55	07/01/16 16:47	1
Lead	<0.00050		0.00050		mg/L		06/29/16 08:55	07/13/16 16:41	1
Molybdenum	**0.37**		0.0050		mg/L		06/29/16 08:55	07/01/16 16:47	1
Selenium	**0.0074**	**F1**	0.0025		mg/L		06/29/16 08:55	07/01/16 16:47	1
Thallium	<0.0020		0.0020		mg/L		06/29/16 08:55	07/13/16 16:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**960**		10		mg/L			06/29/16 04:23	1
Chloride	**89**		10		mg/L			07/19/16 19:00	5
Fluoride	**0.18**		0.10		mg/L			06/29/16 11:28	1
Sulfate	**320**		100		mg/L			07/08/16 08:24	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**67.50**				ft			06/28/16 13:59	1
Depth to water from land surface	**64.95**				ft			06/28/16 13:59	1
Elevation of well (ft from MP)	**578.65**				ft			06/28/16 13:59	1
Field pH	**7.49**				SU			06/28/16 13:59	1
Field Temperature	**59.7**				Degrees F			06/28/16 13:59	1
Ground Water Elevation	**511.15**				ft			06/28/16 13:59	1
Specific Conductance	**1075**				umhos/cm			06/28/16 13:59	1
Well bottom elevation	**453.08**				ft			06/28/16 13:59	1

Client Sample ID: G20S

Date Collected: 06/29/16 09:25
Date Received: 06/29/16 16:00

Lab Sample ID: 500-113652-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.040**		0.010		mg/L		06/30/16 08:19	07/01/16 02:30	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/30/16 08:19	07/01/16 16:14	1
Arsenic	<0.0010		0.0010		mg/L		06/30/16 08:19	07/13/16 17:07	1
Barium	**0.051**		0.0025		mg/L		06/30/16 08:19	07/01/16 16:14	1
Beryllium	<0.0010		0.0010		mg/L		06/30/16 08:19	07/01/16 16:14	1
Boron	**1.2**		0.050		mg/L		06/30/16 08:19	07/01/16 16:14	1
Cadmium	<0.00050		0.00050		mg/L		06/30/16 08:19	07/01/16 16:14	1
Calcium	**54**		0.20		mg/L		06/30/16 08:19	07/13/16 17:07	1
Chromium	<0.0050		0.0050		mg/L		06/30/16 08:19	07/01/16 16:14	1
Cobalt	**0.0011**		0.0010		mg/L		06/30/16 08:19	07/01/16 16:14	1
Lead	<0.00050		0.00050		mg/L		06/30/16 08:19	07/13/16 17:07	1
Molybdenum	**0.014**		0.0050		mg/L		06/30/16 08:19	07/01/16 16:14	1
Selenium	<0.0025		0.0025		mg/L		06/30/16 08:19	07/01/16 16:14	1
Thallium	<0.0020		0.0020		mg/L		06/30/16 08:19	07/13/16 17:07	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**460**		10		mg/L			06/30/16 05:31	1
Chloride	**12**		2.0		mg/L			07/19/16 18:24	1
Fluoride	**0.82**		0.10		mg/L			07/06/16 09:52	1
Sulfate	**69**		20		mg/L			07/08/16 08:25	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**53.14**				ft			06/29/16 09:25	1
Depth to water from land surface	**50.36**				ft			06/29/16 09:25	1
Elevation of well (ft from MP)	**580.33**				ft			06/29/16 09:25	1
Field pH	**7.38**				SU			06/29/16 09:25	1
Field Temperature	**69.3**				Degrees F			06/29/16 09:25	1
Ground Water Elevation	**527.19**				ft			06/29/16 09:25	1
Specific Conductance	**651**				umhos/cm			06/29/16 09:25	1
Well bottom elevation	**442.28**				ft			06/29/16 09:25	1

Client Sample ID: R32S

Date Collected: 06/29/16 14:44
Date Received: 06/29/16 16:00

Lab Sample ID: 500-113652-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.065**		0.010		mg/L		06/30/16 08:19	07/01/16 02:34	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/30/16 08:19	07/01/16 16:17	1
Arsenic	**0.0021**		0.0010		mg/L		06/30/16 08:19	07/13/16 17:09	1
Barium	**0.042**		0.0025		mg/L		06/30/16 08:19	07/01/16 16:17	1
Beryllium	<0.0010		0.0010		mg/L		06/30/16 08:19	07/01/16 16:17	1
Boron	**2.5**		0.050		mg/L		06/30/16 08:19	07/01/16 16:17	1
Cadmium	<0.00050		0.00050		mg/L		06/30/16 08:19	07/01/16 16:17	1
Calcium	**110**		0.20		mg/L		06/30/16 08:19	07/13/16 17:09	1
Chromium	<0.0050		0.0050		mg/L		06/30/16 08:19	07/01/16 16:17	1
Cobalt	<0.0010		0.0010		mg/L		06/30/16 08:19	07/01/16 16:17	1
Lead	<0.00050		0.00050		mg/L		06/30/16 08:19	07/13/16 17:09	1
Molybdenum	**0.43**		0.0050		mg/L		06/30/16 08:19	07/01/16 16:17	1
Selenium	<0.0025		0.0025		mg/L		06/30/16 08:19	07/01/16 16:17	1
Thallium	<0.0020		0.0020		mg/L		06/30/16 08:19	07/13/16 17:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**860**		10		mg/L			06/30/16 05:34	1
Chloride	**110**		10		mg/L			07/19/16 19:00	5
Fluoride	**0.35**		0.10		mg/L			07/06/16 09:55	1
Sulfate	**280**		100		mg/L			07/08/16 08:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**20.51**				ft			06/29/16 14:44	1
Depth to water from land surface	**18.48**				ft			06/29/16 14:44	1
Elevation of well (ft from MP)	**536.81**				ft			06/29/16 14:44	1
Field pH	**7.53**				SU			06/29/16 14:44	1
Field Temperature	**56.1**				Degrees F			06/29/16 14:44	1
Ground Water Elevation	**516.30**				ft			06/29/16 14:44	1
Specific Conductance	**768**				umhos/cm			06/29/16 14:44	1
Well bottom elevation	**457.84**				ft			06/29/16 14:44	1

Client Sample ID: G30S

Date Collected: 06/30/16 09:27
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.023**		0.010		mg/L		07/05/16 14:46	07/06/16 22:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/01/16 13:07	07/01/16 18:36	1
Arsenic	**0.013**		0.0010		mg/L		07/01/16 13:07	07/07/16 23:16	1
Barium	**0.040**		0.0025		mg/L		07/01/16 13:07	07/01/16 18:36	1
Beryllium	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:36	1
Boron	**5.2**		0.50		mg/L		07/01/16 13:07	07/13/16 17:53	10
Cadmium	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:36	1
Calcium	**60**		0.20		mg/L		07/01/16 13:07	07/07/16 23:16	1
Chromium	<0.0050		0.0050		mg/L		07/01/16 13:07	07/01/16 18:36	1
Cobalt	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:36	1
Lead	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:36	1
Molybdenum	**0.30**		0.0050		mg/L		07/01/16 13:07	07/01/16 18:36	1
Selenium	<0.0025		0.0025		mg/L		07/01/16 13:07	07/01/16 18:36	1
Thallium	<0.0020		0.0020		mg/L		07/01/16 13:07	07/01/16 18:36	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**990**		10		mg/L			07/01/16 02:00	1
Chloride	**180**	**F1**	10		mg/L			07/19/16 19:01	5
Fluoride	**1.3**		0.10		mg/L			07/06/16 09:57	1
Sulfate	**410**		100		mg/L			07/08/16 08:27	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**3.54**				ft			06/30/16 09:27	1
Depth to water from land surface	**1.23**				ft			06/30/16 09:27	1
Elevation of well (ft from MP)	**524.40**				ft			06/30/16 09:27	1
Field pH	**7.73**				SU			06/30/16 09:27	1
Field Temperature	**59.5**				Degrees F			06/30/16 09:27	1
Ground Water Elevation	**520.86**				ft			06/30/16 09:27	1
Specific Conductance	**1770**				umhos/cm			06/30/16 09:27	1
Well bottom elevation	**462.58**				ft			06/30/16 09:27	1

Client Sample ID: G45S
Date Collected: 06/30/16 11:20
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.034		0.010		mg/L		07/05/16 14:46	07/06/16 22:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/01/16 13:07	07/01/16 18:40	1
Arsenic	0.0075		0.0010		mg/L		07/01/16 13:07	07/07/16 23:19	1
Barium	0.031		0.0025		mg/L		07/01/16 13:07	07/01/16 18:40	1
Beryllium	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:40	1
Boron	0.48		0.050		mg/L		07/01/16 13:07	07/13/16 17:58	1
Cadmium	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:40	1
Calcium	87		0.20		mg/L		07/01/16 13:07	07/07/16 23:19	1
Chromium	<0.0050		0.0050		mg/L		07/01/16 13:07	07/01/16 18:40	1
Cobalt	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:40	1
Lead	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:40	1
Molybdenum	0.0080		0.0050		mg/L		07/01/16 13:07	07/01/16 18:40	1
Selenium	<0.0025		0.0025		mg/L		07/01/16 13:07	07/01/16 18:40	1
Thallium	<0.0020		0.0020		mg/L		07/01/16 13:07	07/01/16 18:40	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	670		10		mg/L			07/01/16 02:03	1
Chloride	110		10		mg/L			07/19/16 19:04	5
Fluoride	0.34		0.10		mg/L			07/06/16 10:00	1
Sulfate	170		50		mg/L			07/08/16 08:28	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	68.88				ft			06/30/16 11:20	1
Depth to water from land surface	65.91				ft			06/30/16 11:20	1
Elevation of well (ft from MP)	603.31				ft			06/30/16 11:20	1
Field pH	7.50				SU			06/30/16 11:20	1
Field Temperature	58.3				Degrees F			06/30/16 11:20	1
Ground Water Elevation	534.43				ft			06/30/16 11:20	1
Specific Conductance	1014				umhos/cm			06/30/16 11:20	1
Well bottom elevation	471.05				ft			06/30/16 11:20	1

Client Sample ID: G44S
Date Collected: 06/30/16 13:06
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.014**		0.010		mg/L		07/05/16 14:46	07/06/16 22:34	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/01/16 13:07	07/01/16 18:44	1
Arsenic	<0.0010		0.0010		mg/L		07/01/16 13:07	07/07/16 23:21	1
Barium	**0.044**		0.0025		mg/L		07/01/16 13:07	07/01/16 18:44	1
Beryllium	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:44	1
Boron	**0.69**		0.050		mg/L		07/01/16 13:07	07/13/16 18:03	1
Cadmium	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:44	1
Calcium	**100**		0.20		mg/L		07/01/16 13:07	07/07/16 23:21	1
Chromium	<0.0050		0.0050		mg/L		07/01/16 13:07	07/01/16 18:44	1
Cobalt	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:44	1
Lead	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:44	1
Molybdenum	**0.025**		0.0050		mg/L		07/01/16 13:07	07/01/16 18:44	1
Selenium	<0.0025		0.0025		mg/L		07/01/16 13:07	07/01/16 18:44	1
Thallium	<0.0020		0.0020		mg/L		07/01/16 13:07	07/01/16 18:44	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**620**		10		mg/L			07/01/16 02:06	1
Chloride	**32**		2.0		mg/L			07/19/16 18:32	1
Fluoride	**0.18**		0.10		mg/L			07/06/16 10:02	1
Sulfate	**99**		50		mg/L			07/08/16 08:29	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**80.68**				ft			06/30/16 13:06	1
Depth to water from land surface	**78.50**				ft			06/30/16 13:06	1
Elevation of well (ft from MP)	**586.69**				ft			06/30/16 13:06	1
Field pH	**7.59**				SU			06/30/16 13:06	1
Field Temperature	**63.0**				Degrees F			06/30/16 13:06	1
Ground Water Elevation	**506.01**				ft			06/30/16 13:06	1
Specific Conductance	**883**				umhos/cm			06/30/16 13:06	1
Well bottom elevation	**455.11**				ft			06/30/16 13:06	1

Client Sample ID: G46S

Date Collected: 06/30/16 14:40
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.13**		0.010		mg/L		07/05/16 14:46	07/06/16 22:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/01/16 13:07	07/01/16 18:48	1
Arsenic	**0.0014**		0.0010		mg/L		07/01/16 13:07	07/07/16 23:24	1
Barium	**0.098**		0.0025		mg/L		07/01/16 13:07	07/01/16 18:48	1
Beryllium	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:48	1
Boron	**7.9**		0.50		mg/L		07/01/16 13:07	07/13/16 18:07	10
Cadmium	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:48	1
Calcium	**100**		0.20		mg/L		07/01/16 13:07	07/07/16 23:24	1
Chromium	<0.0050		0.0050		mg/L		07/01/16 13:07	07/01/16 18:48	1
Cobalt	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:48	1
Lead	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:48	1
Molybdenum	**0.71**		0.0050		mg/L		07/01/16 13:07	07/01/16 18:48	1
Selenium	<0.0025		0.0025		mg/L		07/01/16 13:07	07/01/16 18:48	1
Thallium	<0.0020		0.0020		mg/L		07/01/16 13:07	07/01/16 18:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**880**		10		mg/L			07/01/16 02:10	1
Chloride	**99**		10		mg/L			07/19/16 19:04	5
Fluoride	**0.29**		0.10		mg/L			07/06/16 10:13	1
Sulfate	**290**		100		mg/L			07/08/16 08:30	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**97.31**				ft			06/30/16 14:40	1
Depth to water from land surface	**94.61**				ft			06/30/16 14:40	1
Elevation of well (ft from MP)	**601.32**				ft			06/30/16 14:40	1
Field pH	**8.26**				SU			06/30/16 14:40	1
Field Temperature	**66.7**				Degrees F			06/30/16 14:40	1
Ground Water Elevation	**504.01**				ft			06/30/16 14:40	1
Specific Conductance	**1204**				umhos/cm			06/30/16 14:40	1
Well bottom elevation	**453.62**				ft			06/30/16 14:40	1

Client Sample ID: G48S

Date Collected: 07/01/16 09:34
Date Received: 07/01/16 13:25

Lab Sample ID: 500-113652-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.013**		0.010		mg/L		07/13/16 15:19	07/14/16 21:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/13/16 15:19	07/14/16 12:20	1
Arsenic	**0.038**		0.0010		mg/L		07/12/16 15:14	07/13/16 13:36	1
Barium	**0.011**		0.0025		mg/L		07/12/16 15:14	07/13/16 13:36	1
Beryllium	<0.0010		0.0010		mg/L		07/13/16 15:19	07/14/16 12:20	1
Boron	**9.5**		0.50		mg/L		07/13/16 15:19	07/20/16 10:57	10
Cadmium	<0.00050	^	0.00050		mg/L		07/12/16 15:14	07/13/16 13:36	1
Calcium	**4.2**		0.20		mg/L		07/13/16 15:19	07/14/16 12:20	1
Chromium	<0.0050		0.0050		mg/L		07/12/16 15:14	07/13/16 13:36	1
Cobalt	<0.0010		0.0010		mg/L		07/12/16 15:14	07/13/16 13:36	1
Lead	<0.00050		0.00050		mg/L		07/12/16 15:14	07/13/16 13:36	1
Molybdenum	**1.2**		0.0050		mg/L		07/13/16 15:19	07/14/16 12:20	1
Selenium	<0.0025		0.0025		mg/L		07/12/16 15:14	07/13/16 13:36	1
Thallium	<0.0020		0.0020		mg/L		07/12/16 15:14	07/13/16 13:36	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			07/04/16 23:26	1
Chloride	**120**		10		mg/L			07/19/16 19:05	5
Fluoride	**1.4**		0.10		mg/L			07/06/16 10:15	1
Sulfate	**480**		100		mg/L			07/08/16 08:31	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**104.95**				ft			07/01/16 09:34	1
Depth to water from land surface	**102.50**				ft			07/01/16 09:34	1
Elevation of well (ft from MP)	**620.77**				ft			07/01/16 09:34	1
Field pH	**9.60**				SU			07/01/16 09:34	1
Field Temperature	**62.2**				Degrees F			07/01/16 09:34	1
Ground Water Elevation	**515.82**				ft			07/01/16 09:34	1
Specific Conductance	**1810**				umhos/cm			07/01/16 09:34	1
Well bottom elevation	**468.32**				ft			07/01/16 09:34	1

Client Sample ID: G47S
Date Collected: 07/01/16 11:25
Date Received: 07/01/16 13:25

Lab Sample ID: 500-113652-11
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.038**		0.010		mg/L		07/13/16 15:19	07/14/16 21:34	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/13/16 15:19	07/14/16 12:25	1
Arsenic	**0.022**		0.0010		mg/L		07/12/16 15:14	07/13/16 13:48	1
Barium	**0.019**		0.0025		mg/L		07/12/16 15:14	07/13/16 13:48	1
Beryllium	<0.0010		0.0010		mg/L		07/13/16 15:19	07/14/16 12:25	1
Boron	**6.4**		0.50		mg/L		07/13/16 15:19	07/20/16 11:01	10
Cadmium	<0.00050	^	0.00050		mg/L		07/12/16 15:14	07/13/16 13:48	1
Calcium	**8.4**		0.20		mg/L		07/13/16 15:19	07/14/16 12:25	1
Chromium	<0.0050		0.0050		mg/L		07/12/16 15:14	07/13/16 13:48	1
Cobalt	<0.0010		0.0010		mg/L		07/12/16 15:14	07/13/16 13:48	1
Lead	<0.00050		0.00050		mg/L		07/12/16 15:14	07/13/16 13:48	1
Molybdenum	**0.53**		0.0050		mg/L		07/13/16 15:19	07/14/16 12:25	1
Selenium	<0.0025		0.0025		mg/L		07/12/16 15:14	07/13/16 13:48	1
Thallium	<0.0020		0.0020		mg/L		07/12/16 15:14	07/13/16 13:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**860**		10		mg/L			07/04/16 23:30	1
Chloride	**150**		10		mg/L			07/19/16 19:05	5
Fluoride	**0.68**		0.10		mg/L			07/06/16 10:17	1
Sulfate	**340**		100		mg/L			07/08/16 08:32	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**96.58**				ft			07/01/16 11:25	1
Depth to water from land surface	**94.08**				ft			07/01/16 11:25	1
Elevation of well (ft from MP)	**612.32**				ft			07/01/16 11:25	1
Field pH	**9.32**				SU			07/01/16 11:25	1
Field Temperature	**65.1**				Degrees F			07/01/16 11:25	1
Ground Water Elevation	**515.74**				ft			07/01/16 11:25	1
Specific Conductance	**1370**				umhos/cm			07/01/16 11:25	1
Well bottom elevation	**459.84**				ft			07/01/16 11:25	1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 341853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total Recoverable	Water	3005A	
500-113652-2	DUP	Total Recoverable	Water	3005A	
500-113652-3	R08S	Total Recoverable	Water	3005A	
MB 500-341853/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-341853/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-113652-3 MS	R08S	Total Recoverable	Water	3005A	
500-113652-3 MSD	R08S	Total Recoverable	Water	3005A	
500-113652-3 DU	R08S	Total Recoverable	Water	3005A	

Analysis Batch: 341997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total Recoverable	Water	6010C	341853
500-113652-2	DUP	Total Recoverable	Water	6010C	341853
500-113652-3	R08S	Total Recoverable	Water	6010C	341853
MB 500-341853/1-A	Method Blank	Total Recoverable	Water	6010C	341853
LCS 500-341853/2-A	Lab Control Sample	Total Recoverable	Water	6010C	341853
500-113652-3 MS	R08S	Total Recoverable	Water	6010C	341853
500-113652-3 MSD	R08S	Total Recoverable	Water	6010C	341853
500-113652-3 DU	R08S	Total Recoverable	Water	6010C	341853

Prep Batch: 342017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-4	G20S	Total Recoverable	Water	3005A	
500-113652-5	R32S	Total Recoverable	Water	3005A	
MB 500-342017/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-342017/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 342205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-4	G20S	Total Recoverable	Water	6010C	342017
500-113652-5	R32S	Total Recoverable	Water	6010C	342017
MB 500-342017/1-A	Method Blank	Total Recoverable	Water	6010C	342017
LCS 500-342017/2-A	Lab Control Sample	Total Recoverable	Water	6010C	342017

Prep Batch: 342230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-6	G30S	Total Recoverable	Water	3005A	
500-113652-7	G45S	Total Recoverable	Water	3005A	
500-113652-8	G44S	Total Recoverable	Water	3005A	
500-113652-9	G46S	Total Recoverable	Water	3005A	
MB 500-342230/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-342230/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 342386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total Recoverable	Water	6020A	341853
500-113652-2	DUP	Total Recoverable	Water	6020A	341853
500-113652-3	R08S	Total Recoverable	Water	6020A	341853
500-113652-4	G20S	Total Recoverable	Water	6020A	342017
500-113652-5	R32S	Total Recoverable	Water	6020A	342017
500-113652-6	G30S	Total Recoverable	Water	6020A	342230

Metals (Continued)

Analysis Batch: 342386 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-7	G45S	Total Recoverable	Water	6020A	342230
500-113652-8	G44S	Total Recoverable	Water	6020A	342230
500-113652-9	G46S	Total Recoverable	Water	6020A	342230
MB 500-341853/1-A	Method Blank	Total Recoverable	Water	6020A	341853
MB 500-342017/1-A	Method Blank	Total Recoverable	Water	6020A	342017
MB 500-342230/1-A	Method Blank	Total Recoverable	Water	6020A	342230
LCS 500-341853/2-A	Lab Control Sample	Total Recoverable	Water	6020A	341853
LCS 500-342017/2-A	Lab Control Sample	Total Recoverable	Water	6020A	342017
LCS 500-342230/2-A	Lab Control Sample	Total Recoverable	Water	6020A	342230
500-113652-3 MS	R08S	Total Recoverable	Water	6020A	341853
500-113652-3 MSD	R08S	Total Recoverable	Water	6020A	341853
500-113652-3 DU	R08S	Total Recoverable	Water	6020A	341853

Prep Batch: 342465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-6	G30S	Total Recoverable	Water	3005A	
500-113652-7	G45S	Total Recoverable	Water	3005A	
500-113652-8	G44S	Total Recoverable	Water	3005A	
500-113652-9	G46S	Total Recoverable	Water	3005A	
MB 500-342465/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-342465/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 500-342465/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 342718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-6	G30S	Total Recoverable	Water	6010C	342465
500-113652-7	G45S	Total Recoverable	Water	6010C	342465
500-113652-8	G44S	Total Recoverable	Water	6010C	342465
500-113652-9	G46S	Total Recoverable	Water	6010C	342465
MB 500-342465/1-A	Method Blank	Total Recoverable	Water	6010C	342465
LCS 500-342465/2-A	Lab Control Sample	Total Recoverable	Water	6010C	342465
LCSD 500-342465/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	342465

Analysis Batch: 342926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-6	G30S	Total Recoverable	Water	6020A	342230
500-113652-7	G45S	Total Recoverable	Water	6020A	342230
500-113652-8	G44S	Total Recoverable	Water	6020A	342230
500-113652-9	G46S	Total Recoverable	Water	6020A	342230
MB 500-342230/1-A	Method Blank	Total Recoverable	Water	6020A	342230
LCS 500-342230/2-A	Lab Control Sample	Total Recoverable	Water	6020A	342230

Prep Batch: 343354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	7470A	
500-113652-2	DUP	Total/NA	Water	7470A	
500-113652-3	R08S	Total/NA	Water	7470A	
500-113652-4	G20S	Total/NA	Water	7470A	
500-113652-5	R32S	Total/NA	Water	7470A	
500-113652-6	G30S	Total/NA	Water	7470A	
500-113652-7	G45S	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 343354 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-8	G44S	Total/NA	Water	7470A	
500-113652-9	G46S	Total/NA	Water	7470A	
500-113652-10	G48S	Total/NA	Water	7470A	
500-113652-11	G47S	Total/NA	Water	7470A	
MB 500-343354/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-343354/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-113652-11 MS	G47S	Total/NA	Water	7470A	
500-113652-11 MSD	G47S	Total/NA	Water	7470A	
500-113652-11 DU	G47S	Total/NA	Water	7470A	

Prep Batch: 343371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-10	G48S	Total Recoverable	Water	3005A	
500-113652-11	G47S	Total Recoverable	Water	3005A	
MB 500-343371/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-343371/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-113652-10 MS	G48S	Total Recoverable	Water	3005A	
500-113652-10 MSD	G48S	Total Recoverable	Water	3005A	
500-113652-10 DU	G48S	Total Recoverable	Water	3005A	

Analysis Batch: 343505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	7470A	343354
500-113652-2	DUP	Total/NA	Water	7470A	343354
500-113652-3	R08S	Total/NA	Water	7470A	343354
500-113652-4	G20S	Total/NA	Water	7470A	343354
500-113652-5	R32S	Total/NA	Water	7470A	343354
500-113652-6	G30S	Total/NA	Water	7470A	343354
500-113652-7	G45S	Total/NA	Water	7470A	343354
500-113652-8	G44S	Total/NA	Water	7470A	343354
500-113652-9	G46S	Total/NA	Water	7470A	343354
500-113652-10	G48S	Total/NA	Water	7470A	343354
500-113652-11	G47S	Total/NA	Water	7470A	343354
MB 500-343354/12-A	Method Blank	Total/NA	Water	7470A	343354
LCS 500-343354/13-A	Lab Control Sample	Total/NA	Water	7470A	343354
500-113652-11 MS	G47S	Total/NA	Water	7470A	343354
500-113652-11 MSD	G47S	Total/NA	Water	7470A	343354
500-113652-11 DU	G47S	Total/NA	Water	7470A	343354

Prep Batch: 343542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-10	G48S	Total Recoverable	Water	3005A	
500-113652-11	G47S	Total Recoverable	Water	3005A	
MB 500-343542/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-343542/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 343557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-10	G48S	Total Recoverable	Water	6020A	343371
500-113652-11	G47S	Total Recoverable	Water	6020A	343371
MB 500-343371/1-A	Method Blank	Total Recoverable	Water	6020A	343371

Metals (Continued)

Analysis Batch: 343557 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-343371/2-A	Lab Control Sample	Total Recoverable	Water	6020A	343371
500-113652-10 MS	G48S	Total Recoverable	Water	6020A	343371
500-113652-10 MSD	G48S	Total Recoverable	Water	6020A	343371
500-113652-10 DU	G48S	Total Recoverable	Water	6020A	343371

Analysis Batch: 343655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total Recoverable	Water	6020A	341853
500-113652-2	DUP	Total Recoverable	Water	6020A	341853
500-113652-3	R08S	Total Recoverable	Water	6020A	341853
500-113652-6	G30S	Total Recoverable	Water	6020A	342230
500-113652-7	G45S	Total Recoverable	Water	6020A	342230
500-113652-8	G44S	Total Recoverable	Water	6020A	342230
500-113652-9	G46S	Total Recoverable	Water	6020A	342230
MB 500-341853/1-A	Method Blank	Total Recoverable	Water	6020A	341853
MB 500-342230/1-A	Method Blank	Total Recoverable	Water	6020A	342230
LCS 500-341853/2-A	Lab Control Sample	Total Recoverable	Water	6020A	341853
LCS 500-342230/2-A	Lab Control Sample	Total Recoverable	Water	6020A	342230
500-113652-3 MS	R08S	Total Recoverable	Water	6020A	341853
500-113652-3 MSD	R08S	Total Recoverable	Water	6020A	341853
500-113652-3 DU	R08S	Total Recoverable	Water	6020A	341853

Analysis Batch: 343677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total Recoverable	Water	6020A	341853
500-113652-2	DUP	Total Recoverable	Water	6020A	341853
500-113652-3	R08S	Total Recoverable	Water	6020A	341853
500-113652-4	G20S	Total Recoverable	Water	6020A	342017
500-113652-5	R32S	Total Recoverable	Water	6020A	342017
MB 500-341853/1-A	Method Blank	Total Recoverable	Water	6020A	341853
MB 500-342017/1-A	Method Blank	Total Recoverable	Water	6020A	342017
LCS 500-341853/2-A	Lab Control Sample	Total Recoverable	Water	6020A	341853
LCS 500-342017/2-A	Lab Control Sample	Total Recoverable	Water	6020A	342017
500-113652-3 MS	R08S	Total Recoverable	Water	6020A	341853
500-113652-3 MSD	R08S	Total Recoverable	Water	6020A	341853
500-113652-3 DU	R08S	Total Recoverable	Water	6020A	341853

Analysis Batch: 343743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-10	G48S	Total Recoverable	Water	6020A	343542
500-113652-11	G47S	Total Recoverable	Water	6020A	343542
MB 500-343542/1-A	Method Blank	Total Recoverable	Water	6020A	343542
LCS 500-343542/2-A	Lab Control Sample	Total Recoverable	Water	6020A	343542

Analysis Batch: 343809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-10	G48S	Total Recoverable	Water	6010C	343542
500-113652-11	G47S	Total Recoverable	Water	6010C	343542
MB 500-343542/1-A	Method Blank	Total Recoverable	Water	6010C	343542
LCS 500-343542/2-A	Lab Control Sample	Total Recoverable	Water	6010C	343542

Metals (Continued)

Analysis Batch: 344460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-10	G48S	Total Recoverable	Water	6020A	343542
500-113652-11	G47S	Total Recoverable	Water	6020A	343542
MB 500-343542/1-A	Method Blank	Total Recoverable	Water	6020A	343542
LCS 500-343542/2-A	Lab Control Sample	Total Recoverable	Water	6020A	343542

General Chemistry

Analysis Batch: 341803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	SM 2540C	
500-113652-2	DUP	Total/NA	Water	SM 2540C	
500-113652-3	R08S	Total/NA	Water	SM 2540C	
MB 500-341803/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-341803/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-113652-1 DU	T03S	Total/NA	Water	SM 2540C	

Analysis Batch: 341893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	SM 4500 F C	
500-113652-2	DUP	Total/NA	Water	SM 4500 F C	
500-113652-3	R08S	Total/NA	Water	SM 4500 F C	
MB 500-341893/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-341893/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-113652-1 MS	T03S	Total/NA	Water	SM 4500 F C	
500-113652-1 MSD	T03S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 341992

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-4	G20S	Total/NA	Water	SM 2540C	
500-113652-5	R32S	Total/NA	Water	SM 2540C	
MB 500-341992/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-341992/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 342159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-6	G30S	Total/NA	Water	SM 2540C	
500-113652-7	G45S	Total/NA	Water	SM 2540C	
500-113652-8	G44S	Total/NA	Water	SM 2540C	
500-113652-9	G46S	Total/NA	Water	SM 2540C	
MB 500-342159/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-342159/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 342354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-10	G48S	Total/NA	Water	SM 2540C	
500-113652-11	G47S	Total/NA	Water	SM 2540C	
MB 500-342354/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-342354/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 342592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-4	G20S	Total/NA	Water	SM 4500 F C	
500-113652-5	R32S	Total/NA	Water	SM 4500 F C	
500-113652-6	G30S	Total/NA	Water	SM 4500 F C	
500-113652-7	G45S	Total/NA	Water	SM 4500 F C	
500-113652-8	G44S	Total/NA	Water	SM 4500 F C	
500-113652-9	G46S	Total/NA	Water	SM 4500 F C	
500-113652-10	G48S	Total/NA	Water	SM 4500 F C	
500-113652-11	G47S	Total/NA	Water	SM 4500 F C	
MB 500-342592/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-342592/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-113652-11 MS	G47S	Total/NA	Water	SM 4500 F C	
500-113652-11 MSD	G47S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 342930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	SM 4500 SO4 E	
500-113652-2	DUP	Total/NA	Water	SM 4500 SO4 E	
500-113652-3	R08S	Total/NA	Water	SM 4500 SO4 E	
500-113652-4	G20S	Total/NA	Water	SM 4500 SO4 E	
500-113652-5	R32S	Total/NA	Water	SM 4500 SO4 E	
500-113652-6	G30S	Total/NA	Water	SM 4500 SO4 E	
500-113652-7	G45S	Total/NA	Water	SM 4500 SO4 E	
500-113652-8	G44S	Total/NA	Water	SM 4500 SO4 E	
500-113652-9	G46S	Total/NA	Water	SM 4500 SO4 E	
500-113652-10	G48S	Total/NA	Water	SM 4500 SO4 E	
500-113652-11	G47S	Total/NA	Water	SM 4500 SO4 E	
MB 500-342930/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-342930/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 344361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	SM 4500 Cl- E	
500-113652-2	DUP	Total/NA	Water	SM 4500 Cl- E	
500-113652-3	R08S	Total/NA	Water	SM 4500 Cl- E	
500-113652-4	G20S	Total/NA	Water	SM 4500 Cl- E	
500-113652-5	R32S	Total/NA	Water	SM 4500 Cl- E	
500-113652-6	G30S	Total/NA	Water	SM 4500 Cl- E	
500-113652-7	G45S	Total/NA	Water	SM 4500 Cl- E	
500-113652-8	G44S	Total/NA	Water	SM 4500 Cl- E	
500-113652-9	G46S	Total/NA	Water	SM 4500 Cl- E	
500-113652-10	G48S	Total/NA	Water	SM 4500 Cl- E	
500-113652-11	G47S	Total/NA	Water	SM 4500 Cl- E	
MB 500-344361/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-344361/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-113652-6 MS	G30S	Total/NA	Water	SM 4500 Cl- E	
500-113652-6 MSD	G30S	Total/NA	Water	SM 4500 Cl- E	

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Field Service / Mobile Lab

Analysis Batch: 342566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	Field Sampling	
500-113652-2	DUP	Total/NA	Water	Field Sampling	
500-113652-3	R08S	Total/NA	Water	Field Sampling	
500-113652-4	G20S	Total/NA	Water	Field Sampling	
500-113652-5	R32S	Total/NA	Water	Field Sampling	
500-113652-6	G30S	Total/NA	Water	Field Sampling	
500-113652-7	G45S	Total/NA	Water	Field Sampling	
500-113652-8	G44S	Total/NA	Water	Field Sampling	
500-113652-9	G46S	Total/NA	Water	Field Sampling	
500-113652-10	G48S	Total/NA	Water	Field Sampling	
500-113652-11	G47S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-341853/1-A
Matrix: Water
Analysis Batch: 341997

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/29/16 08:55	06/29/16 21:55	1

Lab Sample ID: LCS 500-341853/2-A
Matrix: Water
Analysis Batch: 341997

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.514		mg/L		103	80 - 120

Lab Sample ID: 500-113652-3 MS
Matrix: Water
Analysis Batch: 341997

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.14		0.500	0.645		mg/L		101	75 - 125

Lab Sample ID: 500-113652-3 MSD
Matrix: Water
Analysis Batch: 341997

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.14		0.500	0.623		mg/L		96	75 - 125	3	20

Lab Sample ID: 500-113652-3 DU
Matrix: Water
Analysis Batch: 341997

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.14		0.138		mg/L		2	20

Lab Sample ID: MB 500-342017/1-A
Matrix: Water
Analysis Batch: 342205

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/30/16 08:19	07/01/16 01:48	1

Lab Sample ID: LCS 500-342017/2-A
Matrix: Water
Analysis Batch: 342205

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.532		mg/L		106	80 - 120

Lab Sample ID: MB 500-342465/1-A
Matrix: Water
Analysis Batch: 342718

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342465

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		07/05/16 14:46	07/06/16 22:03	1

Lab Sample ID: LCS 500-342465/2-A
Matrix: Water
Analysis Batch: 342718

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342465

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.544		mg/L		109	80 - 120

Lab Sample ID: LCSD 500-342465/3-A
Matrix: Water
Analysis Batch: 342718

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 342465

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.500	0.551		mg/L		110	80 - 120	1	20

Lab Sample ID: MB 500-343542/1-A
Matrix: Water
Analysis Batch: 343809

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 343542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		07/13/16 15:19	07/14/16 21:20	1

Lab Sample ID: LCS 500-343542/2-A
Matrix: Water
Analysis Batch: 343809

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 343542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.490		mg/L		98	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-341853/1-A
Matrix: Water
Analysis Batch: 342386

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/29/16 08:55	07/01/16 16:32	1
Barium	<0.0025		0.0025		mg/L		06/29/16 08:55	07/01/16 16:32	1
Beryllium	<0.0010		0.0010		mg/L		06/29/16 08:55	07/01/16 16:32	1
Cadmium	<0.00050		0.00050		mg/L		06/29/16 08:55	07/01/16 16:32	1
Chromium	<0.0050		0.0050		mg/L		06/29/16 08:55	07/01/16 16:32	1
Cobalt	<0.0010		0.0010		mg/L		06/29/16 08:55	07/01/16 16:32	1
Molybdenum	<0.0050		0.0050		mg/L		06/29/16 08:55	07/01/16 16:32	1
Selenium	<0.0025		0.0025		mg/L		06/29/16 08:55	07/01/16 16:32	1

Lab Sample ID: MB 500-341853/1-A
Matrix: Water
Analysis Batch: 343677

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/29/16 08:55	07/13/16 16:26	1
Calcium	<0.20		0.20		mg/L		06/29/16 08:55	07/13/16 16:26	1
Lead	<0.00050		0.00050		mg/L		06/29/16 08:55	07/13/16 16:26	1
Thallium	<0.0020		0.0020		mg/L		06/29/16 08:55	07/13/16 16:26	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-341853/1-A
Matrix: Water
Analysis Batch: 343655

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/29/16 08:55	07/13/16 16:43	1

Lab Sample ID: LCS 500-341853/2-A
Matrix: Water
Analysis Batch: 342386

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.503		mg/L		101	80 - 120
Barium	2.00	2.05		mg/L		102	80 - 120
Beryllium	0.0500	0.0460		mg/L		92	80 - 120
Cadmium	0.0500	0.0491		mg/L		98	80 - 120
Chromium	0.200	0.183		mg/L		92	80 - 120
Cobalt	0.500	0.472		mg/L		94	80 - 120
Molybdenum	1.00	0.989		mg/L		99	80 - 120
Selenium	0.100	0.0975		mg/L		97	80 - 120

Lab Sample ID: LCS 500-341853/2-A
Matrix: Water
Analysis Batch: 343677

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Calcium	10.0	9.57		mg/L		96	80 - 120
Lead	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: LCS 500-341853/2-A
Matrix: Water
Analysis Batch: 343655

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: 500-113652-3 MS
Matrix: Water
Analysis Batch: 342386

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.523		mg/L		105	75 - 125
Barium	0.056		2.00	2.12		mg/L		103	75 - 125
Beryllium	<0.0010		0.0500	0.0418		mg/L		84	75 - 125
Cadmium	<0.00050		0.0500	0.0502		mg/L		100	75 - 125
Chromium	<0.0050		0.200	0.164		mg/L		82	75 - 125
Cobalt	<0.0010		0.500	0.421		mg/L		84	75 - 125
Molybdenum	0.37		1.00	1.36		mg/L		99	75 - 125
Selenium	0.0074	F1	0.100	0.0891		mg/L		82	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-113652-3 MS — **Client Sample ID: R08S**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 343677 — **Prep Batch: 341853**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0019		0.100	0.110		mg/L		108	75 - 125
Calcium	130		10.0	124	4	mg/L		-25	75 - 125
Lead	<0.00050		0.100	0.0938		mg/L		94	75 - 125
Thallium	<0.0020		0.100	0.0995		mg/L		99	75 - 125

Lab Sample ID: 500-113652-3 MS — **Client Sample ID: R08S**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 343655 — **Prep Batch: 341853**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	6.8		1.00	7.61	4	mg/L		83	75 - 125

Lab Sample ID: 500-113652-3 MSD — **Client Sample ID: R08S**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 342386 — **Prep Batch: 341853**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.502		mg/L		100	75 - 125	4	20
Barium	0.056		2.00	2.04		mg/L		99	75 - 125	4	20
Beryllium	<0.0010		0.0500	0.0382		mg/L		76	75 - 125	9	20
Cadmium	<0.00050		0.0500	0.0476		mg/L		95	75 - 125	5	20
Chromium	<0.0050		0.200	0.158		mg/L		79	75 - 125	4	20
Cobalt	<0.0010		0.500	0.405		mg/L		81	75 - 125	4	20
Molybdenum	0.37		1.00	1.30		mg/L		94	75 - 125	4	20
Selenium	0.0074	F1	0.100	0.0816	F1	mg/L		74	75 - 125	9	20

Lab Sample ID: 500-113652-3 MSD — **Client Sample ID: R08S**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 343677 — **Prep Batch: 341853**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0019		0.100	0.107		mg/L		105	75 - 125	3	20
Calcium	130		10.0	124	4	mg/L		-24	75 - 125	0	20
Lead	<0.00050		0.100	0.0911		mg/L		91	75 - 125	3	20
Thallium	<0.0020		0.100	0.0970		mg/L		97	75 - 125	3	20

Lab Sample ID: 500-113652-3 MSD — **Client Sample ID: R08S**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 343655 — **Prep Batch: 341853**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	6.8		1.00	7.36	4	mg/L		58	75 - 125	3	20

Lab Sample ID: 500-113652-3 DU — **Client Sample ID: R08S**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 342386 — **Prep Batch: 341853**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-113652-3 DU
Matrix: Water
Analysis Batch: 342386

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.056		0.0551		mg/L		0.7	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Molybdenum	0.37		0.358		mg/L		2	20
Selenium	0.0074	F1	0.00652		mg/L		12	20

Lab Sample ID: 500-113652-3 DU
Matrix: Water
Analysis Batch: 343677

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0019		0.00186		mg/L		2	20
Calcium	130		122		mg/L		4	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-113652-3 DU
Matrix: Water
Analysis Batch: 343655

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 341853

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	6.8		6.78		mg/L		0	20

Lab Sample ID: MB 500-342017/1-A
Matrix: Water
Analysis Batch: 342386

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		06/30/16 08:19	07/01/16 16:06	1
Barium	<0.0025		0.0025		mg/L		06/30/16 08:19	07/01/16 16:06	1
Beryllium	<0.0010		0.0010		mg/L		06/30/16 08:19	07/01/16 16:06	1
Boron	<0.050		0.050		mg/L		06/30/16 08:19	07/01/16 16:06	1
Cadmium	<0.00050		0.00050		mg/L		06/30/16 08:19	07/01/16 16:06	1
Chromium	<0.0050		0.0050		mg/L		06/30/16 08:19	07/01/16 16:06	1
Cobalt	<0.0010		0.0010		mg/L		06/30/16 08:19	07/01/16 16:06	1
Molybdenum	<0.0050		0.0050		mg/L		06/30/16 08:19	07/01/16 16:06	1
Selenium	<0.0025		0.0025		mg/L		06/30/16 08:19	07/01/16 16:06	1

Lab Sample ID: MB 500-342017/1-A
Matrix: Water
Analysis Batch: 343677

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342017

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/30/16 08:19	07/13/16 17:02	1
Calcium	<0.20		0.20		mg/L		06/30/16 08:19	07/13/16 17:02	1
Lead	<0.00050		0.00050		mg/L		06/30/16 08:19	07/13/16 17:02	1
Thallium	<0.0020		0.0020		mg/L		06/30/16 08:19	07/13/16 17:02	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-342017/2-A
Matrix: Water
Analysis Batch: 342386

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.505		mg/L		101	80 - 120
Barium	2.00	2.01		mg/L		101	80 - 120
Beryllium	0.0500	0.0452		mg/L		90	80 - 120
Boron	1.00	0.897		mg/L		90	80 - 120
Cadmium	0.0500	0.0489		mg/L		98	80 - 120
Chromium	0.200	0.182		mg/L		91	80 - 120
Cobalt	0.500	0.465		mg/L		93	80 - 120
Molybdenum	1.00	0.996		mg/L		100	80 - 120
Selenium	0.100	0.0976		mg/L		98	80 - 120

Lab Sample ID: LCS 500-342017/2-A
Matrix: Water
Analysis Batch: 343677

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342017

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.100		mg/L		100	80 - 120
Calcium	10.0	9.38		mg/L		94	80 - 120
Lead	0.100	0.0973		mg/L		97	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: MB 500-342230/1-A
Matrix: Water
Analysis Batch: 342386

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342230

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/01/16 13:07	07/01/16 18:14	1
Barium	<0.0025		0.0025		mg/L		07/01/16 13:07	07/01/16 18:14	1
Beryllium	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:14	1
Cadmium	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:14	1
Chromium	<0.0050		0.0050		mg/L		07/01/16 13:07	07/01/16 18:14	1
Cobalt	<0.0010		0.0010		mg/L		07/01/16 13:07	07/01/16 18:14	1
Lead	<0.00050		0.00050		mg/L		07/01/16 13:07	07/01/16 18:14	1
Molybdenum	<0.0050		0.0050		mg/L		07/01/16 13:07	07/01/16 18:14	1
Selenium	<0.0025		0.0025		mg/L		07/01/16 13:07	07/01/16 18:14	1
Thallium	<0.0020		0.0020		mg/L		07/01/16 13:07	07/01/16 18:14	1

Lab Sample ID: MB 500-342230/1-A
Matrix: Water
Analysis Batch: 342926

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342230

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		07/01/16 13:07	07/07/16 23:00	1
Calcium	<0.20		0.20		mg/L		07/01/16 13:07	07/07/16 23:00	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-342230/1-A
Matrix: Water
Analysis Batch: 343655

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 342230

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		07/01/16 13:07	07/13/16 17:44	1

Lab Sample ID: LCS 500-342230/2-A
Matrix: Water
Analysis Batch: 342386

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.477		mg/L		95	80 - 120
Barium	0.500	0.469		mg/L		94	80 - 120
Beryllium	0.0500	0.0441		mg/L		88	80 - 120
Cadmium	0.0500	0.0460		mg/L		92	80 - 120
Chromium	0.200	0.172		mg/L		86	80 - 120
Cobalt	0.500	0.460		mg/L		92	80 - 120
Lead	0.100	0.0918		mg/L		92	80 - 120
Molybdenum	1.00	0.932		mg/L		93	80 - 120
Selenium	0.100	0.0911		mg/L		91	80 - 120
Thallium	0.100	0.0923		mg/L		92	80 - 120

Lab Sample ID: LCS 500-342230/2-A
Matrix: Water
Analysis Batch: 342926

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0963		mg/L		96	80 - 120
Calcium	10.0	7.98		mg/L		80	80 - 120

Lab Sample ID: LCS 500-342230/2-A
Matrix: Water
Analysis Batch: 343655

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 342230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.959		mg/L		96	80 - 120

Lab Sample ID: MB 500-343371/1-A
Matrix: Water
Analysis Batch: 343557

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 343371

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		07/12/16 15:14	07/13/16 13:31	1
Barium	<0.0025		0.0025		mg/L		07/12/16 15:14	07/13/16 13:31	1
Cadmium	<0.00050	^	0.00050		mg/L		07/12/16 15:14	07/13/16 13:31	1
Chromium	<0.0050		0.0050		mg/L		07/12/16 15:14	07/13/16 13:31	1
Cobalt	<0.0010		0.0010		mg/L		07/12/16 15:14	07/13/16 13:31	1
Lead	<0.00050		0.00050		mg/L		07/12/16 15:14	07/13/16 13:31	1
Selenium	<0.0025		0.0025		mg/L		07/12/16 15:14	07/13/16 13:31	1
Thallium	<0.0020		0.0020		mg/L		07/12/16 15:14	07/13/16 13:31	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-343371/2-A
Matrix: Water
Analysis Batch: 343557

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 343371

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0966		mg/L		97	80 - 120
Barium	0.500	0.452		mg/L		90	80 - 120
Cadmium	0.0500	0.0509	^	mg/L		102	80 - 120
Chromium	0.200	0.184		mg/L		92	80 - 120
Cobalt	0.500	0.479		mg/L		96	80 - 120
Lead	0.100	0.0955		mg/L		96	80 - 120
Selenium	0.100	0.107		mg/L		107	80 - 120
Thallium	0.100	0.0952		mg/L		95	80 - 120

Lab Sample ID: 500-113652-10 MS
Matrix: Water
Analysis Batch: 343557

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 343371

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.038		0.100	0.139		mg/L		101	75 - 125
Barium	0.011		0.500	0.468		mg/L		91	75 - 125
Cadmium	<0.00050	^	0.0500	0.0485	^	mg/L		96	75 - 125
Chromium	<0.0050		0.200	0.179		mg/L		89	75 - 125
Cobalt	<0.0010		0.500	0.453		mg/L		91	75 - 125
Lead	<0.00050		0.100	0.0900		mg/L		90	75 - 125
Selenium	<0.0025		0.100	0.0988		mg/L		99	75 - 125
Thallium	<0.0020		0.100	0.0899		mg/L		90	75 - 125

Lab Sample ID: 500-113652-10 MSD
Matrix: Water
Analysis Batch: 343557

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 343371

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.038		0.100	0.143		mg/L		105	75 - 125	2	20
Barium	0.011		0.500	0.479		mg/L		93	75 - 125	2	20
Cadmium	<0.00050	^	0.0500	0.0492	^	mg/L		98	75 - 125	1	20
Chromium	<0.0050		0.200	0.178		mg/L		89	75 - 125	0	20
Cobalt	<0.0010		0.500	0.452		mg/L		90	75 - 125	0	20
Lead	<0.00050		0.100	0.0912		mg/L		91	75 - 125	1	20
Selenium	<0.0025		0.100	0.101		mg/L		101	75 - 125	2	20
Thallium	<0.0020		0.100	0.0910		mg/L		91	75 - 125	1	20

Lab Sample ID: 500-113652-10 DU
Matrix: Water
Analysis Batch: 343557

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 343371

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.038		0.0384		mg/L		1	20
Barium	0.011		0.0116		mg/L		3	20
Cadmium	<0.00050	^	<0.00050	^	mg/L		NC	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-113652-10 DU
Matrix: Water
Analysis Batch: 343557

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 343371

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: MB 500-343542/1-A
Matrix: Water
Analysis Batch: 343743

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 343542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		07/13/16 15:19	07/14/16 11:24	1
Beryllium	<0.0010		0.0010		mg/L		07/13/16 15:19	07/14/16 11:24	1
Calcium	<0.20		0.20		mg/L		07/13/16 15:19	07/14/16 11:24	1
Molybdenum	<0.0050		0.0050		mg/L		07/13/16 15:19	07/14/16 11:24	1

Lab Sample ID: MB 500-343542/1-A
Matrix: Water
Analysis Batch: 344460

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 343542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		07/13/16 15:19	07/20/16 10:47	1

Lab Sample ID: LCS 500-343542/2-A
Matrix: Water
Analysis Batch: 343743

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 343542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.468		mg/L		94	80 - 120
Beryllium	0.0500	0.0510		mg/L		102	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Molybdenum	1.00	0.985		mg/L		99	80 - 120

Lab Sample ID: LCS 500-343542/2-A
Matrix: Water
Analysis Batch: 344460

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 343542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.01		mg/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-343354/12-A
Matrix: Water
Analysis Batch: 343505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 343354

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		07/12/16 15:30	07/13/16 09:29	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 500-343354/13-A
Matrix: Water
Analysis Batch: 343505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 343354

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00200	0.00221		mg/L		111	80 - 120		

Lab Sample ID: 500-113652-11 MS
Matrix: Water
Analysis Batch: 343505

Client Sample ID: G47S
Prep Type: Total/NA
Prep Batch: 343354

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	<0.00020		0.00100	0.000975		mg/L		98	75 - 125		

Lab Sample ID: 500-113652-11 MSD
Matrix: Water
Analysis Batch: 343505

Client Sample ID: G47S
Prep Type: Total/NA
Prep Batch: 343354

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000962		mg/L		96	75 - 125	1	20

Lab Sample ID: 500-113652-11 DU
Matrix: Water
Analysis Batch: 343505

Client Sample ID: G47S
Prep Type: Total/NA
Prep Batch: 343354

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	<0.00020			<0.00020		mg/L				NC	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-341803/1
Matrix: Water
Analysis Batch: 341803

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/29/16 03:04	1

Lab Sample ID: LCS 500-341803/2
Matrix: Water
Analysis Batch: 341803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	290		mg/L		116	80 - 120		

Lab Sample ID: 500-113652-1 DU
Matrix: Water
Analysis Batch: 341803

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	910			914		mg/L				0.7	5

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 500-341992/1
Matrix: Water
Analysis Batch: 341992

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/30/16 04:19	1

Lab Sample ID: LCS 500-341992/2
Matrix: Water
Analysis Batch: 341992

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	296		mg/L		118	80 - 120

Lab Sample ID: MB 500-342159/1
Matrix: Water
Analysis Batch: 342159

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			07/01/16 01:54	1

Lab Sample ID: LCS 500-342159/2
Matrix: Water
Analysis Batch: 342159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	298		mg/L		119	80 - 120

Lab Sample ID: MB 500-342354/1
Matrix: Water
Analysis Batch: 342354

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			07/04/16 23:11	1

Lab Sample ID: LCS 500-342354/2
Matrix: Water
Analysis Batch: 342354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	284		mg/L		114	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-344361/12
Matrix: Water
Analysis Batch: 344361

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/19/16 18:20	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-344361/13
Matrix: Water
Analysis Batch: 344361

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	48.6		mg/L		97	80 - 120		

Lab Sample ID: 500-113652-6 MS
Matrix: Water
Analysis Batch: 344361

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	180	F1	50.0	218	F1	mg/L		74	75 - 125		

Lab Sample ID: 500-113652-6 MSD
Matrix: Water
Analysis Batch: 344361

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	180	F1	50.0	216	F1	mg/L		68	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-341893/3
Matrix: Water
Analysis Batch: 341893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			06/29/16 11:13	1

Lab Sample ID: LCS 500-341893/4
Matrix: Water
Analysis Batch: 341893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			10.0	10.1		mg/L		101	80 - 120		

Lab Sample ID: 500-113652-1 MS
Matrix: Water
Analysis Batch: 341893

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.19		5.00	4.98		mg/L		96	75 - 125		

Lab Sample ID: 500-113652-1 MSD
Matrix: Water
Analysis Batch: 341893

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.19		5.00	4.98		mg/L		96	75 - 125	0	20

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 500-342592/3
Matrix: Water
Analysis Batch: 342592

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/06/16 09:40	1

Lab Sample ID: LCS 500-342592/4
Matrix: Water
Analysis Batch: 342592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			10.0	11.0		mg/L		110	80 - 120		

Lab Sample ID: 500-113652-11 MS
Matrix: Water
Analysis Batch: 342592

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.68		5.00	6.03		mg/L		107	75 - 125		

Lab Sample ID: 500-113652-11 MSD
Matrix: Water
Analysis Batch: 342592

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.68		5.00	5.97		mg/L		106	75 - 125	1	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-342930/3
Matrix: Water
Analysis Batch: 342930

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			07/08/16 08:12	1

Lab Sample ID: LCS 500-342930/4
Matrix: Water
Analysis Batch: 342930

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	20.4		mg/L		102	80 - 120		

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5

500-113652 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-113652

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: No O

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2016 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Nic L, Andrew N.
Lab PM:

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						Parameter	Comments
								Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
1		TO3S	06/28/16	0950	5	W		✓	✓	✓							
2		DUP	06/28/16	0950	5	W		✓	✓	✓							from TO3S
3		RO8S	06/28/16	1359	5	W		✓	✓	✓							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/28/16	1525	[signature]	TA-CHI	6/28/16	1525
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

7/21/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-113652 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job # 500-113652

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.6 | 1

Client: Midwest Generation EME CCC
Client Project #:
Project Name: Joliet #9 CCR - 2Q16 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: 3	Parameter: 3	Parameter: 8	Comments
								Radium 226/228	Total Metals	Cl, F, SO4, TDS	
4		G205	06/29/16	0925	5	W		1	1	1	
5		R325	06/29/16	1444	5	W		1	1	1	

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date: _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	T&L	06/29/16	1600	[signature]	TA-CHS	6/29/16	1600
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500-1209

7/21/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6(
Phone: 708.534.5200 Fax: 708.53

500-113652 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-113652

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.3/4

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2Q16 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L. Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, FI, SO4, TDS							
6		G30S	06/30/16	0927	5	W		✓	✓	✓							
7		G45S	06/30/16	1120	5	W		✓	✓	✓							
8		G44S	06/30/16	1306	5	W		✓	✓	✓							
9		G46S	06/30/16	1440	5	W		✓	✓	✓							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date: _____

Sample Disposal
___ Return to Client ___ Disposal by Lab ___ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/30/16	1635	[signature]	TA-CHI	6/30/16	1635
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

7/21/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-113652 COC

Chain of Custody Record

Lab Job #: 500-113652 SS 7/1/16

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 14.0

(optional) Report To	(optional) Bill To
Contact:	Contact:
Company:	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client: Midwest Gen | Client Project #:

Project Name: Joliet #9 CCR

Project Location/State: Lincoln stone Quarry | Lab Project #:

Sampler: Andrew N. | Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Parameter: Radium 226/228	Parameter: total Metals	Parameter: Cl, Fl, SO4, TDS							Comments
10		G485	7/1/16	0934	5	W	1	1	1							
11		G475	7/1/16	1125	5	W	1	1	1							

Preservative: 3 | 3 | 8

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TA	7/1/16	1325	[signature]	TA-CHI	7/1/16	1325
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments:

Lab Comments:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-113652-1

Login Number: 113652
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	11.0,11.1,13.4,14.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client Sample ID: T03S

Lab Sample ID: 500-113652-1

Date Collected: 06/28/16 09:50

Matrix: Water

Date Received: 06/28/16 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	341997	06/29/16 22:04	PJ1	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	343677	07/13/16 16:31	FXG	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	343655	07/13/16 16:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 16:40	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:38	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	341803	06/29/16 04:13	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 18:59	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	341893	06/29/16 11:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	342930		CLB	TAL CHI
					(Start)	07/08/16 08:20		
					(End)	07/08/16 08:21		
Total/NA	Analysis	Field Sampling		1	342566	06/28/16 09:50	JVB	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-113652-2

Date Collected: 06/28/16 09:50

Matrix: Water

Date Received: 06/28/16 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	341997	06/29/16 22:08	PJ1	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	343677	07/13/16 16:33	FXG	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	343655	07/13/16 16:57	FXG	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 16:44	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:40	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	341803	06/29/16 04:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 18:59	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	341893	06/29/16 11:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	342930		CLB	TAL CHI
					(Start)	07/08/16 08:23		
					(End)	07/08/16 08:24		
Total/NA	Analysis	Field Sampling		1	342566	06/28/16 09:50	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Client Sample ID: R08S

Date Collected: 06/28/16 13:59
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	341997	06/29/16 22:12	PJ1	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	343677	07/13/16 16:41	FXG	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	343655	07/13/16 17:02	FXG	TAL CHI
Total Recoverable	Prep	3005A			341853	06/29/16 08:55	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 16:47	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:44	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	341803	06/29/16 04:23	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 19:00	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	341893	06/29/16 11:28	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	342930		CLB	TAL CHI
					(Start)	07/08/16 08:24		
					(End)	07/08/16 08:25		
Total/NA	Analysis	Field Sampling		1	342566	06/28/16 13:59	JVB	TAL CHI

Client Sample ID: G20S

Date Collected: 06/29/16 09:25
Date Received: 06/29/16 16:00

Lab Sample ID: 500-113652-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			342017	06/30/16 08:19	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	342205	07/01/16 02:30	KML	TAL CHI
Total Recoverable	Prep	3005A			342017	06/30/16 08:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	343677	07/13/16 17:07	FXG	TAL CHI
Total Recoverable	Prep	3005A			342017	06/30/16 08:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 16:14	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:46	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	341992	06/30/16 05:31	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	344361	07/19/16 18:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 09:52	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	342930		CLB	TAL CHI
					(Start)	07/08/16 08:25		
					(End)	07/08/16 08:26		
Total/NA	Analysis	Field Sampling		1	342566	06/29/16 09:25	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Client Sample ID: R32S

Lab Sample ID: 500-113652-5

Date Collected: 06/29/16 14:44
Matrix: Water
Date Received: 06/29/16 16:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			342017	06/30/16 08:19	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	342205	07/01/16 02:34	KML	TAL CHI
Total Recoverable	Prep	3005A			342017	06/30/16 08:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	343677	07/13/16 17:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			342017	06/30/16 08:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 16:17	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:47	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	341992	06/30/16 05:34	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 19:00	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 09:55	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	342930		CLB	TAL CHI
					(Start)	07/08/16 08:26		
					(End)	07/08/16 08:27		
Total/NA	Analysis	Field Sampling		1	342566	06/29/16 14:44	JVB	TAL CHI

Client Sample ID: G30S

Lab Sample ID: 500-113652-6

Date Collected: 06/30/16 09:27
Matrix: Water
Date Received: 06/30/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			342465	07/05/16 14:46	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	342718	07/06/16 22:16	PJ1	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342926	07/07/16 23:16	PFK	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		10	343655	07/13/16 17:53	FXG	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 18:36	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:48	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	342159	07/01/16 02:00	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 19:01	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 09:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	342930		CLB	TAL CHI
					(Start)	07/08/16 08:27		
					(End)	07/08/16 08:28		
Total/NA	Analysis	Field Sampling		1	342566	06/30/16 09:27	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Client Sample ID: G45S

Date Collected: 06/30/16 11:20
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			342465	07/05/16 14:46	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	342718	07/06/16 22:29	PJ1	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342926	07/07/16 23:19	PFK	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	343655	07/13/16 17:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 18:40	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:50	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	342159	07/01/16 02:03	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 19:04	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 10:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	342930		CLB	TAL CHI
					(Start)	07/08/16 08:28		
					(End)	07/08/16 08:29		
Total/NA	Analysis	Field Sampling		1	342566	06/30/16 11:20	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 06/30/16 13:06
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			342465	07/05/16 14:46	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	342718	07/06/16 22:34	PJ1	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342926	07/07/16 23:21	PFK	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	343655	07/13/16 18:03	FXG	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 18:44	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:51	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	342159	07/01/16 02:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	344361	07/19/16 18:32	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 10:02	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	342930		CLB	TAL CHI
					(Start)	07/08/16 08:29		
					(End)	07/08/16 08:30		
Total/NA	Analysis	Field Sampling		1	342566	06/30/16 13:06	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-113652-9

Date Collected: 06/30/16 14:40

Matrix: Water

Date Received: 06/30/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			342465	07/05/16 14:46	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	342718	07/06/16 22:38	PJ1	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342926	07/07/16 23:24	PFK	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		10	343655	07/13/16 18:07	FXG	TAL CHI
Total Recoverable	Prep	3005A			342230	07/01/16 13:07	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	342386	07/01/16 18:48	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:53	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	342159	07/01/16 02:10	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 19:04	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 10:13	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	342930		CLB	TAL CHI
					(Start)	07/08/16 08:30		
					(End)	07/08/16 08:31		
Total/NA	Analysis	Field Sampling		1	342566	06/30/16 14:40	JVB	TAL CHI

Client Sample ID: G48S

Lab Sample ID: 500-113652-10

Date Collected: 07/01/16 09:34

Matrix: Water

Date Received: 07/01/16 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			343542	07/13/16 15:19	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	343809	07/14/16 21:29	PJ1	TAL CHI
Total Recoverable	Prep	3005A			343371	07/12/16 15:14	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	343557	07/13/16 13:36	FXG	TAL CHI
Total Recoverable	Prep	3005A			343542	07/13/16 15:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	343743	07/14/16 12:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			343542	07/13/16 15:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		10	344460	07/20/16 10:57	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:54	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	342354	07/04/16 23:26	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 19:05	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 10:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	342930		CLB	TAL CHI
					(Start)	07/08/16 08:31		
					(End)	07/08/16 08:32		
Total/NA	Analysis	Field Sampling		1	342566	07/01/16 09:34	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-1

Client Sample ID: G47S

Date Collected: 07/01/16 11:25
Date Received: 07/01/16 13:25

Lab Sample ID: 500-113652-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			343542	07/13/16 15:19	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	343809	07/14/16 21:34	PJ1	TAL CHI
Total Recoverable	Prep	3005A			343371	07/12/16 15:14	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	343557	07/13/16 13:48	FXG	TAL CHI
Total Recoverable	Prep	3005A			343542	07/13/16 15:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	343743	07/14/16 12:25	FXG	TAL CHI
Total Recoverable	Prep	3005A			343542	07/13/16 15:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		10	344460	07/20/16 11:01	FXG	TAL CHI
Total/NA	Prep	7470A			343354	07/12/16 15:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	343505	07/13/16 09:56	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	342354	07/04/16 23:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	344361	07/19/16 19:05	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	342592	07/06/16 10:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	342930	(Start) 07/08/16 08:32 (End) 07/08/16 08:33	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	342566	07/01/16 11:25	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/28/16 Start Purge: 0935 (2400 Hr. Clock) End Purge: 0950

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.65 (ft./msl)
Water Level 134.26 (ft.)
Ground Water Elev. 495.39 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.32	7.30	7.30	(std.)
SC	1419	1438	1438	(umhos/cm)
Temp.	15.69	15.40	15.40	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 69°F, Cloudy, N winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 134.26 - 3.08 = 131.18 (Ft.)
Levels were taken on 06/28/16 @ 0925.
* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S Dup
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652.2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up _____ (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation * 629.65 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Samples ~~Levels~~ were taken on 06/28/16 @ 0950.

* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-3

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/28/16 Start Purge: 1345 (2400 Hr. Clock) End Purge: 1359

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.55 (ft)

Ref. Measuring Pt. TIC

Well Elevation *578.65 (ft./msl)

Water Level 67.50 (ft.)

Ground Water Elev. 511.15 (ft./msl)

Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.47	7.49	7.49	(std.)
SC	1073	1075	1075	(umhos/cm)
Temp.	15.44	15.38	15.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 72°F, Cloudy, NE winds 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)

Depth To Water from L.S. = 67.50 - 2.55 = 64.95 (AK)

Levels were taken on 06/28/16 @ 1335

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-4

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/29/16 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0925

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 53.14 (ft.)
Ground Water Elev. 527.19 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.36	7.38	7.38	(std.)
SC	637	651	651	(umhos/cm)
Temp.	20.40	20.67	20.67	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 68°F, Sunny, N winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 53.14 - 2.78 = 50.36 (ft.)
Levels were taken on ~~0900~~ 06/29/16 NL @ 0900.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/29/16 Start Purge: 1425 (2400 Hr. Clock) End Purge: 1444

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.81 (ft./msl)
Water Level 20.51 (ft.)
Ground Water Elev. 516.30 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.56	7.53	7.53	(std.)
SC	778	768	768	(umhos/cm)
Temp.	13.46	13.40	13.40	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 79°F, Partly Cloudy, Calm winds

Other: *Reference Measurement
Depth To Water from L.S. = 20.51 - 2.03 = 18.48 (ft.)
Levels were taken on 06/29/16 @ 1415.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/30/16 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0927

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.28

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 3.54 (ft.)
Ground Water Elev. 520.86 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.69	7.73	7.73	(std.)
SC	1,770	1,770	1,770	(umhos/cm)
Temp.	15.33	15.34	15.34	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 74°F, Sunny, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 3.54 - 2.31 = 1.23 (Ft.)
Levels were taken on 06/30/16 @ 0900.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/30/16 Start Purge: 1105 (2400 Hr. Clock) End Purge: 1120

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.97

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 68.88 (ft.)
Ground Water Elev. 534.43 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.50	7.50	7.50	(std.)
SC	1026	1014	1014	(umhos/cm)
Temp.	14.59	14.56	14.56	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 76°F, Sunny, SW winds 5-10mph

Other: *Reference Measurement
Depth To Water from L.S. = 68.88 - 2.97 = 65.91 (ft.)
Levels were taken on 06/30/16 @ 1100.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/30/16 Start Purge: 1252 (2400 Hr. Clock) End Purge: 1306

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.68 (ft.)
Ground Water Elev. 506.01 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.62	7.59	7.59	(std.)
SC	881	883	883	(umhos/cm)
Temp.	17.07	17.22	17.22	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 77°F, Cloudy, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.68 - 2.18 = 78.50 (ft.)
Levels were taken on 06/30/16 @ 1245.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/30/16 Start Purge: 1420 (2400 Hr. Clock) End Purge: 1440

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 97.31 (ft.)

Ground Water Elev. 504.01 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	8.27	8.26	8.26	(std.)
SC	1,199	1,204	1,204	(umhos/cm)
Temp.	19.09	19.28	19.28	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 77°F, Sunny, SW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 97.31 - 2.70 = 94.61 (ft.)

Levels were taken on 06/30/16 @ 1410.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-10

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 7/1/16 Start Purge: 0914 (2400 Hr. Clock) End Purge: 0934

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 104.95 (ft.)
Ground Water Elev. 515.82 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.60	9.60	9.60	(std.)
SC	1800	1810	1810	(umhos/cm)
Temp.	15.93	16.56	16.83	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Clear, colorless, moderate odor
Weather Conditions: 75°F, cloudy, W. wind @ 5mph

Other: *Reference Measurement
Depth To Water from L.S. = ~~515.82 - 2.45 = 513.77~~ 104.95 - 2.45 = 102.50
Levels were taken on 7/1/16 @ 0900. 07/01/16 QP

Sampler Name (Print): Andrew Nachel Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-113652-11

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 7/1/16 Start Purge: 1105 (2400 Hr. Clock) End Purge: 1125

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 96.58 (ft.)
Ground Water Elev. 515.74 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.31	9.32	9.32	(std.)
SC	1362	1364	1370	(umhos/cm)
Temp.	17.90	18.09	18.42	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: clear, colorless, slight odor
Weather Conditions: partly cloudy, 73°F, west winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 96.58 - 2.50 = 94.08
Levels were taken on 7/1/16 @ 1100.

Sampler Name (Print): Andrew Nastel Signature: _____

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-113652-2
Client Project/Site: Joliet #9 CCR - 2Q16 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
7/30/2016 9:43:25 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-113652-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-113652-2

Comments
No additional comments.

Receipt
The samples were received on 6/28/2016 3:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 11.0º C, 11.1º C, 13.4º C and 14.0º C.

RAD
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-113652-1	T03S	Water	06/28/16 09:50	06/28/16 15:25
500-113652-2	DUP	Water	06/28/16 09:50	06/28/16 15:25
500-113652-3	R08S	Water	06/28/16 13:59	06/28/16 15:25
500-113652-4	G20S	Water	06/29/16 09:25	06/29/16 16:00
500-113652-5	R32S	Water	06/29/16 14:44	06/29/16 16:00
500-113652-6	G30S	Water	06/30/16 09:27	06/30/16 16:35
500-113652-7	G45S	Water	06/30/16 11:20	06/30/16 16:35
500-113652-8	G44S	Water	06/30/16 13:06	06/30/16 16:35
500-113652-9	G46S	Water	06/30/16 14:40	06/30/16 16:35
500-113652-10	G48S	Water	07/01/16 09:34	07/01/16 13:25
500-113652-11	G47S	Water	07/01/16 11:25	07/01/16 13:25

Client Sample ID: T03S

Date Collected: 06/28/16 09:50
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.856**		0.179	0.195	1.00	0.134	pCi/L	06/30/16 13:19	07/22/16 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*06/30/16 13:19*	*07/22/16 07:41*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.320	U	0.290	0.291	1.00	0.467	pCi/L	06/30/16 13:51	07/20/16 13:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*06/30/16 13:51*	*07/20/16 13:53*	*1*
Y Carrier	*81.5*		*40 - 110*	*06/30/16 13:51*	*07/20/16 13:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.18**		0.341	0.351	5.00	0.467	pCi/L		07/30/16 00:26	1

Client Sample ID: DUP

Date Collected: 06/28/16 09:50
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-2

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.848		0.176	0.192	1.00	0.125	pCi/L	06/30/16 13:19	07/22/16 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*06/30/16 13:19*	*07/22/16 07:41*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.697		0.296	0.302	1.00	0.419	pCi/L	06/30/16 13:51	07/20/16 13:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*06/30/16 13:51*	*07/20/16 13:54*	*1*
Y Carrier	*82.6*		*40 - 110*	*06/30/16 13:51*	*07/20/16 13:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.55		0.344	0.358	5.00	0.419	pCi/L		07/30/16 00:26	1

Client Sample ID: R08S

Date Collected: 06/28/16 13:59
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.908		0.198	0.214	1.00	0.183	pCi/L	06/30/16 13:19	07/22/16 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*06/30/16 13:19*	*07/22/16 07:41*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.961		0.322	0.334	1.00	0.429	pCi/L	06/30/16 13:51	07/20/16 13:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*06/30/16 13:51*	*07/20/16 13:54*	*1*
Y Carrier	*84.1*		*40 - 110*	*06/30/16 13:51*	*07/20/16 13:54*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.87		0.378	0.396	5.00	0.429	pCi/L		07/30/16 00:26	1

Client Sample ID: G20S

Date Collected: 06/29/16 09:25
Date Received: 06/29/16 16:00

Lab Sample ID: 500-113652-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.65		0.235	0.278	1.00	0.152	pCi/L	07/06/16 15:46	07/29/16 10:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.1*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.15		0.365	0.380	1.00	0.469	pCi/L	07/06/16 16:20	07/26/16 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.1*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*
Y Carrier	*89.3*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.79		0.434	0.471	5.00	0.469	pCi/L		07/30/16 00:26	1

Client Sample ID: R32S

Date Collected: 06/29/16 14:44
Date Received: 06/29/16 16:00

Lab Sample ID: 500-113652-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.56		0.214	0.256	1.00	0.112	pCi/L	07/06/16 15:46	07/29/16 10:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.568		0.301	0.305	1.00	0.448	pCi/L	07/06/16 16:20	07/26/16 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*
Y Carrier	*89.7*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.12		0.369	0.398	5.00	0.448	pCi/L		07/30/16 00:26	1

Client Sample ID: G30S

Date Collected: 06/30/16 09:27
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-6

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.597		0.132	0.143	1.00	0.107	pCi/L	07/06/16 15:46	07/29/16 10:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.574		0.257	0.262	1.00	0.363	pCi/L	07/06/16 16:20	07/26/16 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.3*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*
Y Carrier	*89.3*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.17		0.289	0.298	5.00	0.363	pCi/L		07/30/16 00:26	1

Client Sample ID: G45S

Date Collected: 06/30/16 11:20
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-7

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.41		0.196	0.234	1.00	0.101	pCi/L	07/06/16 15:46	07/29/16 10:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.644		0.294	0.300	1.00	0.426	pCi/L	07/06/16 16:20	07/26/16 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.0*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*
Y Carrier	*89.7*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.05		0.354	0.380	5.00	0.426	pCi/L		07/30/16 00:26	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Client Sample ID: G44S
Date Collected: 06/30/16 13:06
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-8
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.400		0.117	0.122	1.00	0.113	pCi/L	07/06/16 15:46	07/29/16 10:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.0*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.478		0.284	0.287	1.00	0.430	pCi/L	07/06/16 16:20	07/26/16 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.0*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*
Y Carrier	*87.9*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.879		0.307	0.312	5.00	0.430	pCi/L		07/30/16 00:26	1

Client Sample ID: G46S

Date Collected: 06/30/16 14:40
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.30		0.191	0.224	1.00	0.113	pCi/L	07/06/16 15:46	07/29/16 10:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.638		0.283	0.289	1.00	0.402	pCi/L	07/06/16 16:20	07/26/16 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*
Y Carrier	*90.1*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.94		0.342	0.366	5.00	0.402	pCi/L		07/30/16 00:26	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Client Sample ID: G48S
Date Collected: 07/01/16 09:34
Date Received: 07/01/16 13:25

Lab Sample ID: 500-113652-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.572		0.132	0.142	1.00	0.110	pCi/L	07/06/16 15:46	07/29/16 10:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:38*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.434		0.256	0.259	1.00	0.384	pCi/L	07/06/16 16:20	07/26/16 13:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*
Y Carrier	*88.6*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.288	0.295	5.00	0.384	pCi/L		07/30/16 00:26	1

Client Sample ID: G47S

Date Collected: 07/01/16 11:25
Date Received: 07/01/16 13:25

Lab Sample ID: 500-113652-11

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.721**		0.163	0.176	1.00	0.158	pCi/L	07/06/16 15:46	07/29/16 14:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.2*		*40 - 110*	*07/06/16 15:46*	*07/29/16 14:31*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.289	U	0.325	0.326	1.00	0.534	pCi/L	07/06/16 16:20	07/26/16 13:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.2*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:21*	*1*
Y Carrier	*90.1*		*40 - 110*	*07/06/16 16:20*	*07/26/16 13:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.01**		0.364	0.371	5.00	0.534	pCi/L		07/30/16 00:26	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 258750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	PrecSep-21	
500-113652-2	DUP	Total/NA	Water	PrecSep-21	
500-113652-3	R08S	Total/NA	Water	PrecSep-21	
MB 160-258750/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-258750/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-113652-2 DU	DUP	Total/NA	Water	PrecSep-21	

Prep Batch: 258755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-1	T03S	Total/NA	Water	PrecSep_0	
500-113652-2	DUP	Total/NA	Water	PrecSep_0	
500-113652-3	R08S	Total/NA	Water	PrecSep_0	
MB 160-258755/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-258755/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-113652-2 DU	DUP	Total/NA	Water	PrecSep_0	

Prep Batch: 259411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-4	G20S	Total/NA	Water	PrecSep-21	
500-113652-5	R32S	Total/NA	Water	PrecSep-21	
500-113652-6	G30S	Total/NA	Water	PrecSep-21	
500-113652-7	G45S	Total/NA	Water	PrecSep-21	
500-113652-8	G44S	Total/NA	Water	PrecSep-21	
500-113652-9	G46S	Total/NA	Water	PrecSep-21	
500-113652-10	G48S	Total/NA	Water	PrecSep-21	
500-113652-11	G47S	Total/NA	Water	PrecSep-21	
MB 160-259411/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-259411/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-113652-10 DU	G48S	Total/NA	Water	PrecSep-21	

Prep Batch: 259418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-113652-4	G20S	Total/NA	Water	PrecSep_0	
500-113652-5	R32S	Total/NA	Water	PrecSep_0	
500-113652-6	G30S	Total/NA	Water	PrecSep_0	
500-113652-7	G45S	Total/NA	Water	PrecSep_0	
500-113652-8	G44S	Total/NA	Water	PrecSep_0	
500-113652-9	G46S	Total/NA	Water	PrecSep_0	
500-113652-10	G48S	Total/NA	Water	PrecSep_0	
500-113652-11	G47S	Total/NA	Water	PrecSep_0	
MB 160-259418/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-259418/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-113652-10 DU	G48S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-258750/1-A
Matrix: Water
Analysis Batch: 261713

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258750

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02398	U	0.0667	0.0667	1.00	0.124	pCi/L	06/30/16 13:19	07/22/16 07:29	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.5*		*40 - 110*	*06/30/16 13:19*	*07/22/16 07:29*	*1*

Lab Sample ID: LCS 160-258750/2-A
Matrix: Water
Analysis Batch: 262337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258750

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	11.52		1.14	1.00	0.0723	pCi/L	103	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*92.6*		*40 - 110*

Lab Sample ID: 500-113652-2 DU
Matrix: Water
Analysis Batch: 261711

Client Sample ID: DUP
Prep Type: Total/NA
Prep Batch: 258750

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.848			0.9638		0.215	1.00	0.167	pCi/L			0.28	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*91.5*		*40 - 110*

Lab Sample ID: MB 160-259411/1-A
Matrix: Water
Analysis Batch: 262648

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259411

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1166	U	0.0941	0.0947	1.00	0.144	pCi/L	07/06/16 15:46	07/29/16 10:41	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.9*		*40 - 110*	*07/06/16 15:46*	*07/29/16 10:41*	*1*

Lab Sample ID: LCS 160-259411/2-A
Matrix: Water
Analysis Batch: 262648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259411

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	13.12		1.32	1.00	0.135	pCi/L	118	68 - 137		

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-259411/2-A
Matrix: Water
Analysis Batch: 262648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259411

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.8		40 - 110

Lab Sample ID: 500-113652-10 DU
Matrix: Water
Analysis Batch: 262648

Client Sample ID: G48S
Prep Type: Total/NA
Prep Batch: 259411

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.572			0.6672		0.157	1.00	0.115	pCi/L			0.32	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.0		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-258755/1-A
Matrix: Water
Analysis Batch: 261339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 258755

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.05345	U	0.198	0.199	1.00	0.371	pCi/L	06/30/16 13:51	07/20/16 13:52	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.5		40 - 110	06/30/16 13:51	07/20/16 13:52	1
Y Carrier	83.4		40 - 110	06/30/16 13:51	07/20/16 13:52	1

Lab Sample ID: LCS 160-258755/2-A
Matrix: Water
Analysis Batch: 261339

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 258755

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	18.23		1.93	1.00	0.455	pCi/L	123	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	92.6		40 - 110
Y Carrier	84.1		40 - 110

Lab Sample ID: 500-113652-2 DU
Matrix: Water
Analysis Batch: 261339

Client Sample ID: DUP
Prep Type: Total/NA
Prep Batch: 258755

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.697			0.7065		0.306	1.00	0.424	pCi/L			0.01	1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 500-113652-2 DU
Matrix: Water
Analysis Batch: 261339

Client Sample ID: DUP
Prep Type: Total/NA
Prep Batch: 258755

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	91.5		40 - 110
Y Carrier	81.5		40 - 110

Lab Sample ID: MB 160-259418/1-A
Matrix: Water
Analysis Batch: 262071

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 259418

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2794	U	0.323	0.324	1.00	0.532	pCi/L	07/06/16 16:20	07/26/16 13:26	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		40 - 110	07/06/16 16:20	07/26/16 13:26	1
Y Carrier	90.1		40 - 110	07/06/16 16:20	07/26/16 13:26	1

Lab Sample ID: LCS 160-259418/2-A
Matrix: Water
Analysis Batch: 262071

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 259418

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.8	14.05		1.56	1.00	0.482	pCi/L	95	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.8		40 - 110
Y Carrier	89.7		40 - 110

Lab Sample ID: 500-113652-10 DU
Matrix: Water
Analysis Batch: 262069

Client Sample ID: G48S
Prep Type: Total/NA
Prep Batch: 259418

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.434			0.6430		0.341	1.00	0.503	pCi/L			0.35	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	84.0		40 - 110
Y Carrier	89.3		40 - 110

TestAmerica

THE LEADER IN ENVIRONMENT

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5

500-113652 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-113652

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: No O

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2016 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Nic L, Andrew N.
Lab PM:

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
1		TO3S	06/28/16	0950	5	W		✓	✓	✓						
2		DUP	06/28/16	0950	5	W		✓	✓	✓						from TO3S
3		RO8S	06/28/16	1359	5	W		✓	✓	✓						

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/28/16	1525	[signature]	TA CHI	6/28/16	1525
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

7/30/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-113652 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job # 500-113652

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.1

Client: Midwest Generation EME CCC
Client Project #:
Project Name: Joliet #9 CCR - 2Q16 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	1 Radium 226/228	Total Metals	Cl, F, SO4, TDS							
4		G205	06/29/16	0925	5	W		1	1	1							
5		R325	06/29/16	1444	5	W		1	1	1							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date: _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	T&L	06/29/16	1600	[signature]	TA-CHS	6/29/16	1600
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124 (500-113652)

7/30/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6(
Phone: 708.534.5200 Fax: 708.53

500-113652 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-113652

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 13.4

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2Q16 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L. Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, FI, SO4, TDS							
6		G30S	06/30/16	0927	5	W		✓	✓	✓							
7		G45S	06/30/16	1120	5	W		✓	✓	✓							
8		G44S	06/30/16	1306	5	W		✓	✓	✓							
9		G46S	06/30/16	1440	5	W		✓	✓	✓							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date: _____

Sample Disposal
[ ] Return to Client [ ] Disposal by Lab [ ] Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/30/16	1635	[signature]	TA-CHI	6/30/16	1635
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

7/30/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-113652 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-113652 SS 7/1/16

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 14.0

Client	Client Project #	Preservative	3	3	8						
Midwest Gen											
Project Name		Parameter	Radium 226/228	total Metals	Cl, Fl, SO4, TDS						
Joliet #9 CCR											
Project Location/State	Lab Project #										
Lincoln stone Quarry											
Sampler	Lab PM										
Andrew N.	Eric Lang										

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix												
10		G485	7/1/16	0934	5	W	-	-	-									
11		G475	7/1/16	1125	5	W	-	-	-									

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TA	7/1/16	1325	[signature]	TA-CHI	7/1/16	1325
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-74802.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-113652-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/11/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T03S (500-113652-1)	6/28/16	09:50 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-113652-2)	6/28/16	09:50 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-113652-3)	6/28/16	13:59 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Sherri Root	6/28/16 1600	TA-Chi	[illegible] McK	06/29/16 0920	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-74868.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-113652-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/11/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR - 2Q16 GW	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-113652-4)	6/29/16	09:25 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-113652-5)	6/29/16	14:44 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Page 2 of 30

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by: [signature]	Date/Time: 6/29/16 1655	Company TA-CHI	Received by: [signature]	Date/Time: 063016 0950	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

7/6/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-74901.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-113652-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/12/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR - 2Q16 GW	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G30S (500-113652-6)	6/30/16	09:27 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-113652-7)	6/30/16	11:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-113652-8)	6/30/16	13:06 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G46S (500-113652-9)	6/30/16	14:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FED EX 7/1/16
Relinquished by: [signature]	Date/Time: 6/30/16 1650	Company TAL-CHI	Received by: [signature] Date/Time: 7/1/16 0925 Company
Relinquished by:	Date/Time:	Company	Received by: [signature] Date/Time: 0925 Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Page 28 of 38

7/30/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-74938.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com		Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.				Job #: 500-113652-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/12/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR - 2Q16 GW	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/ProcSep_21 Standard Target List	904.0/ProcSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
G48S (500-113652-10)	7/1/16	09:34 Central		Water				X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-113652-11)	7/1/16	11:25 Central		Water				X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Sherri Scott	7/1/16 1350	TA-CHI		070216 0815	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-113652-2

Login Number: 113652
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	11.0,11.1,13.4,14.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-113652-2

Login Number: 113652
List Number: 2
Creator: McKinney, Gerrod E

List Source: TestAmerica St. Louis
List Creation: 06/29/16 02:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-113652-2

Login Number: 113652
List Number: 3
Creator: McKinney, Gerrod E

List Source: TestAmerica St. Louis
List Creation: 06/30/16 12:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-113652-2

Login Number: 113652
List Number: 4
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis
List Creation: 07/01/16 11:22 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-113652-2

Login Number: 113652
List Number: 5
Creator: McKinney, Gerrod E

List Source: TestAmerica St. Louis
List Creation: 07/02/16 12:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Client Sample ID: T03S
Date Collected: 06/28/16 09:50
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258750	06/30/16 13:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	261711	07/22/16 07:41	JLW	TAL SL
Total/NA	Prep	PrecSep_0			258755	06/30/16 13:51	MCJ	TAL SL
Total/NA	Analysis	904.0		1	261339	07/20/16 13:53	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: DUP
Date Collected: 06/28/16 09:50
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258750	06/30/16 13:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	261711	07/22/16 07:41	JLW	TAL SL
Total/NA	Prep	PrecSep_0			258755	06/30/16 13:51	MCJ	TAL SL
Total/NA	Analysis	904.0		1	261339	07/20/16 13:54	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: R08S
Date Collected: 06/28/16 13:59
Date Received: 06/28/16 15:25

Lab Sample ID: 500-113652-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			258750	06/30/16 13:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	261711	07/22/16 07:41	JLW	TAL SL
Total/NA	Prep	PrecSep_0			258755	06/30/16 13:51	MCJ	TAL SL
Total/NA	Analysis	904.0		1	261339	07/20/16 13:54	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: G20S
Date Collected: 06/29/16 09:25
Date Received: 06/29/16 16:00

Lab Sample ID: 500-113652-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262648	07/29/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262071	07/26/16 13:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Client Sample ID: R32S
Date Collected: 06/29/16 14:44
Date Received: 06/29/16 16:00

Lab Sample ID: 500-113652-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262648	07/29/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262071	07/26/16 13:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: G30S
Date Collected: 06/30/16 09:27
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262648	07/29/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262071	07/26/16 13:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: G45S
Date Collected: 06/30/16 11:20
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262648	07/29/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262071	07/26/16 13:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: G44S
Date Collected: 06/30/16 13:06
Date Received: 06/30/16 16:35

Lab Sample ID: 500-113652-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262648	07/29/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262071	07/26/16 13:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Client Sample ID: G46S

Lab Sample ID: 500-113652-9

Date Collected: 06/30/16 14:40
Matrix: Water
Date Received: 06/30/16 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262648	07/29/16 10:39	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262071	07/26/16 13:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: G48S

Lab Sample ID: 500-113652-10

Date Collected: 07/01/16 09:34
Matrix: Water
Date Received: 07/01/16 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262648	07/29/16 10:38	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262071	07/26/16 13:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Client Sample ID: G47S

Lab Sample ID: 500-113652-11

Date Collected: 07/01/16 11:25
Matrix: Water
Date Received: 07/01/16 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			259411	07/06/16 15:46	MCJ	TAL SL
Total/NA	Analysis	903.0		1	262649	07/29/16 14:31	RTM	TAL SL
Total/NA	Prep	PrecSep_0			259418	07/06/16 16:20	MCJ	TAL SL
Total/NA	Analysis	904.0		1	262069	07/26/16 13:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	262766	07/30/16 00:26	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q16 GW

TestAmerica Job ID: 500-113652-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-113652-1	T03S	90.9
500-113652-2	DUP	90.9
500-113652-2 DU	DUP	91.5
500-113652-3	R08S	87.5
500-113652-4	G20S	74.1
500-113652-5	R32S	84.9
500-113652-6	G30S	94.3
500-113652-7	G45S	90.0
500-113652-8	G44S	86.0
500-113652-9	G46S	87.2
500-113652-10	G48S	90.9
500-113652-10 DU	G48S	84.0
500-113652-11	G47S	81.2
LCS 160-258750/2-A	Lab Control Sample	92.6
LCS 160-259411/2-A	Lab Control Sample	83.8
MB 160-258750/1-A	Method Blank	91.5
MB 160-259411/1-A	Method Blank	76.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-113652-1	T03S	90.9	81.5
500-113652-2	DUP	90.9	82.6
500-113652-2 DU	DUP	91.5	81.5
500-113652-3	R08S	87.5	84.1
500-113652-4	G20S	74.1	89.3
500-113652-5	R32S	84.9	89.7
500-113652-6	G30S	94.3	89.3
500-113652-7	G45S	90.0	89.7
500-113652-8	G44S	86.0	87.9
500-113652-9	G46S	87.2	90.1
500-113652-10	G48S	90.9	88.6
500-113652-10 DU	G48S	84.0	89.3
500-113652-11	G47S	81.2	90.1
LCS 160-258755/2-A	Lab Control Sample	92.6	84.1
LCS 160-259418/2-A	Lab Control Sample	83.8	89.7
MB 160-258755/1-A	Method Blank	91.5	83.4
MB 160-259418/1-A	Method Blank	76.9	90.1

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-116075-1
Client Project/Site: Joliet #9 CCR
Revision: 1

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
10/21/2016 1:05:00 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-116075-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-116075-1

Comments
Revised Report - There was a large difference between samples -2 and -3 (field duplicate) results for Boron which may have been caused by a dilution error. Sample -2 was reanalyzed.

No additional comments.

Receipt
The samples were received on 8/23/2016 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 2.8º C, 3.3º C, 3.5º C, 3.9º C, 4.6º C and 5.1º C.

Metals
Method(s) 6020A: The internal standard (Tb) was used to report the elements Lead and Thallium in batch 500-349579. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The low level check standard (CCVL) at line 92 associated with batch 500-350203 recovered above the upper control limit for Beryllium. The samples associated with this CCVL were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: G46S (500-116075-9), R32S (500-116075-10) and G44S (500-116075-11).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
Method(s) SM 4500 Cl- E: The Chloride matrix spike duplicate (MSD) recovery for sample G30S (500-116075-6) in analytical batch 500-351154 was outside control limits. The associated matrix spike (MS) and the laboratory control sample (LCS) recoveries were within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-116075-1	G20S	Water	08/23/16 09:45	08/23/16 15:30
500-116075-2	G48S	Water	08/24/16 09:35	08/24/16 15:35
500-116075-3	G48S DUP	GW	08/24/16 09:35	08/24/16 15:35
500-116075-4	G47S	Water	08/24/16 13:40	08/24/16 15:35
500-116075-5	T03S	GW	08/25/16 09:23	08/26/16 08:00
500-116075-6	G30S	GW	08/25/16 10:56	08/26/16 08:00
500-116075-7	G45S	GW	08/25/16 13:44	08/26/16 08:00
500-116075-8	R08S	GW	08/25/16 14:57	08/26/16 08:00
500-116075-9	G46S	Water	08/26/16 08:55	08/26/16 13:35
500-116075-10	R32S	Water	08/26/16 10:54	08/26/16 13:35
500-116075-11	G44S	Water	08/26/16 11:54	08/26/16 13:35

Client Sample ID: G20S
Date Collected: 08/23/16 09:45
Date Received: 08/23/16 15:30

Lab Sample ID: 500-116075-1
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.039**		0.010		mg/L		08/24/16 08:24	08/24/16 20:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/24/16 08:24	08/26/16 13:55	1
Arsenic	<0.0010		0.0010		mg/L		08/24/16 08:24	08/26/16 13:55	1
Barium	**0.047**		0.0025		mg/L		08/24/16 08:24	08/26/16 13:55	1
Beryllium	<0.0010		0.0010		mg/L		08/24/16 08:24	08/26/16 13:55	1
Boron	**1.3**		0.050		mg/L		08/24/16 08:24	08/26/16 13:55	1
Cadmium	<0.00050		0.00050		mg/L		08/24/16 08:24	08/26/16 13:55	1
Calcium	**56**		0.20		mg/L		08/24/16 08:24	08/26/16 13:55	1
Chromium	<0.0050		0.0050		mg/L		08/24/16 08:24	08/26/16 13:55	1
Cobalt	<0.0010		0.0010		mg/L		08/24/16 08:24	08/26/16 13:55	1
Lead	<0.00050		0.00050		mg/L		08/24/16 08:24	08/26/16 13:55	1
Molybdenum	**0.017**		0.0050		mg/L		08/24/16 08:24	08/26/16 13:55	1
Selenium	<0.0025		0.0025		mg/L		08/24/16 08:24	08/26/16 13:55	1
Thallium	<0.0020		0.0020		mg/L		08/24/16 08:24	08/26/16 13:55	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/25/16 16:00	08/26/16 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**420**		10		mg/L			08/25/16 01:30	1
Chloride	**13**		2.0		mg/L			09/09/16 20:02	1
Fluoride	**0.81**		0.10		mg/L			08/29/16 14:34	1
Sulfate	**67**		25		mg/L			09/09/16 20:26	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**638**				umhos/cm			08/23/16 09:45	1
Field Temperature	**71.2**				Degrees F			08/23/16 09:45	1
Ground Water Elevation	**519.01**				ft			08/23/16 09:45	1
Field pH	**7.41**				SU			08/23/16 09:45	1
Well bottom elevation	**442.28**				ft			08/23/16 09:45	1
Depth to water from land surface	**58.54**				ft			08/23/16 09:45	1
Depth to Water (ft from MP)	**61.32**				ft			08/23/16 09:45	1
Elevation of well (ft from MP)	**580.33**				ft			08/23/16 09:45	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Client Sample ID: G48S
Date Collected: 08/24/16 09:35
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-2
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.012		0.010		mg/L		09/17/16 11:28	09/17/16 18:41	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/25/16 08:31	08/25/16 15:41	1
Arsenic	0.032		0.0010		mg/L		08/25/16 08:31	08/25/16 15:41	1
Barium	0.014		0.0025		mg/L		08/25/16 08:31	08/25/16 15:41	1
Beryllium	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 15:41	1
Boron	10		1.0		mg/L		08/25/16 08:31	10/20/16 18:21	20
Cadmium	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 15:41	1
Calcium	5.5		0.20		mg/L		08/25/16 08:31	08/25/16 15:41	1
Chromium	<0.0050		0.0050		mg/L		08/25/16 08:31	08/25/16 15:41	1
Cobalt	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 15:41	1
Lead	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 15:41	1
Molybdenum	1.1		0.0050		mg/L		08/25/16 08:31	08/25/16 15:41	1
Selenium	<0.0025		0.0025		mg/L		08/25/16 08:31	08/25/16 15:41	1
Thallium	<0.0020		0.0020		mg/L		08/25/16 08:31	08/25/16 15:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/25/16 16:00	08/26/16 13:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			08/25/16 01:42	1
Chloride	120		10		mg/L			09/09/16 21:13	5
Fluoride	1.4		0.10		mg/L			08/26/16 12:00	1
Sulfate	420		130		mg/L			09/14/16 20:24	25

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1660				umhos/cm			08/24/16 09:35	1
Field Temperature	61.5				Degrees F			08/24/16 09:35	1
Ground Water Elevation	516.00				ft			08/24/16 09:35	1
Field pH	9.31				SU			08/24/16 09:35	1
Well bottom elevation	468.32				ft			08/24/16 09:35	1
Depth to water from land surface	102.32				ft			08/24/16 09:35	1
Depth to Water (ft from MP)	104.77				ft			08/24/16 09:35	1
Elevation of well (ft from MP)	620.77				ft			08/24/16 09:35	1

Client Sample ID: G48S DUP
Date Collected: 08/24/16 09:35
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-3
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.012		0.010		mg/L		09/17/16 11:28	09/17/16 18:46	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/25/16 08:31	08/25/16 15:45	1
Arsenic	0.036		0.0010		mg/L		08/25/16 08:31	08/25/16 15:45	1
Barium	0.013		0.0025		mg/L		08/25/16 08:31	08/25/16 15:45	1
Beryllium	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 15:45	1
Boron	9.4		1.0		mg/L		08/25/16 08:31	08/26/16 16:15	20
Cadmium	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 15:45	1
Calcium	5.3		0.20		mg/L		08/25/16 08:31	08/25/16 15:45	1
Chromium	<0.0050		0.0050		mg/L		08/25/16 08:31	08/25/16 15:45	1
Cobalt	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 15:45	1
Lead	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 15:45	1
Molybdenum	1.1		0.0050		mg/L		08/25/16 08:31	08/25/16 15:45	1
Selenium	<0.0025		0.0025		mg/L		08/25/16 08:31	08/25/16 15:45	1
Thallium	<0.0020		0.0020		mg/L		08/25/16 08:31	08/25/16 15:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/25/16 16:00	08/26/16 13:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10		mg/L			08/25/16 01:46	1
Chloride	120		10		mg/L			09/09/16 21:14	5
Fluoride	1.4		0.10		mg/L			08/26/16 12:07	1
Sulfate	420		130		mg/L			09/14/16 20:26	25

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1660				umhos/cm			08/24/16 09:35	1
Field Temperature	61.5				Degrees F			08/24/16 09:35	1
Ground Water Elevation	516.00				ft			08/24/16 09:35	1
Field pH	9.31				SU			08/24/16 09:35	1
Well bottom elevation	468.32				ft			08/24/16 09:35	1
Depth to water from land surface	102.32				ft			08/24/16 09:35	1
Depth to Water (ft from MP)	104.77				ft			08/24/16 09:35	1
Elevation of well (ft from MP)	620.77				ft			08/24/16 09:35	1

Client Sample ID: G47S
Date Collected: 08/24/16 13:40
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-4
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.028**		0.010		mg/L		09/17/16 11:28	09/17/16 18:52	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/25/16 08:31	08/25/16 15:48	1
Arsenic	**0.017**		0.0010		mg/L		08/25/16 08:31	08/25/16 15:48	1
Barium	**0.023**		0.0025		mg/L		08/25/16 08:31	08/25/16 15:48	1
Beryllium	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 15:48	1
Boron	**9.3**		1.0		mg/L		08/25/16 08:31	08/26/16 16:19	20
Cadmium	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 15:48	1
Calcium	**9.2**		0.20		mg/L		08/25/16 08:31	08/25/16 15:48	1
Chromium	<0.0050		0.0050		mg/L		08/25/16 08:31	08/25/16 15:48	1
Cobalt	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 15:48	1
Lead	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 15:48	1
Molybdenum	**0.41**		0.0050		mg/L		08/25/16 08:31	08/25/16 15:48	1
Selenium	<0.0025		0.0025		mg/L		08/25/16 08:31	08/25/16 15:48	1
Thallium	<0.0020		0.0020		mg/L		08/25/16 08:31	08/25/16 15:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/25/16 16:00	08/26/16 13:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**830**		10		mg/L			08/25/16 01:50	1
Chloride	**140**		10		mg/L			09/09/16 21:15	5
Fluoride	**0.67**		0.10		mg/L			08/26/16 12:09	1
Sulfate	**300**		100		mg/L			09/14/16 20:27	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**1232**				umhos/cm			08/24/16 13:40	1
Field Temperature	**65.5**				Degrees F			08/24/16 13:40	1
Ground Water Elevation	**515.53**				ft			08/24/16 13:40	1
Field pH	**9.19**				SU			08/24/16 13:40	1
Well bottom elevation	**459.84**				ft			08/24/16 13:40	1
Depth to water from land surface	**94.29**				ft			08/24/16 13:40	1
Depth to Water (ft from MP)	**96.79**				ft			08/24/16 13:40	1
Elevation of well (ft from MP)	**612.32**				ft			08/24/16 13:40	1

Client Sample ID: T03S
Date Collected: 08/25/16 09:23
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-5
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.016**		0.010		mg/L		08/26/16 11:58	09/03/16 08:03	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/16 11:58	08/29/16 14:54	1
Arsenic	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:54	1
Barium	**0.086**		0.0025		mg/L		08/26/16 11:58	08/29/16 14:54	1
Beryllium	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:54	1
Boron	**1.1**		0.050		mg/L		08/26/16 11:58	08/30/16 15:39	1
Cadmium	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 14:54	1
Calcium	**110**		0.20		mg/L		08/26/16 11:58	08/29/16 14:54	1
Chromium	<0.0050		0.0050		mg/L		08/26/16 11:58	08/29/16 14:54	1
Cobalt	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:54	1
Lead	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 14:54	1
Molybdenum	**0.043**		0.0050		mg/L		08/26/16 11:58	08/29/16 14:54	1
Selenium	<0.0025		0.0025		mg/L		08/26/16 11:58	08/29/16 14:54	1
Thallium	<0.0020		0.0020		mg/L		08/26/16 11:58	08/29/16 14:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/26/16 14:00	08/29/16 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**880**		10		mg/L			08/29/16 01:26	1
Chloride	**99**		10		mg/L			09/09/16 21:15	5
Fluoride	**0.20**		0.10		mg/L			08/26/16 12:11	1
Sulfate	**180**		50		mg/L			09/14/16 20:57	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**1154**				umhos/cm			08/25/16 09:23	1
Field Temperature	**59.5**				Degrees F			08/25/16 09:23	1
Ground Water Elevation	**495.52**				ft			08/25/16 09:23	1
Field pH	**7.32**				SU			08/25/16 09:23	1
Well bottom elevation	**456.70**				ft			08/25/16 09:23	1
Depth to water from land surface	**131.05**				ft			08/25/16 09:23	1
Depth to Water (ft from MP)	**134.13**				ft			08/25/16 09:23	1
Elevation of well (ft from MP)	**629.65**				ft			08/25/16 09:23	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Client Sample ID: G30S
Date Collected: 08/25/16 10:56
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-6
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020		0.010		mg/L		08/26/16 11:58	09/03/16 08:07	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/16 11:58	08/29/16 14:58	1
Arsenic	0.015		0.0010		mg/L		08/26/16 11:58	08/29/16 14:58	1
Barium	0.039		0.0025		mg/L		08/26/16 11:58	08/29/16 14:58	1
Beryllium	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:58	1
Boron	5.7		0.50		mg/L		08/26/16 11:58	08/30/16 15:42	10
Cadmium	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 14:58	1
Calcium	59		0.20		mg/L		08/26/16 11:58	08/29/16 14:58	1
Chromium	<0.0050		0.0050		mg/L		08/26/16 11:58	08/29/16 14:58	1
Cobalt	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:58	1
Lead	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 14:58	1
Molybdenum	0.31		0.0050		mg/L		08/26/16 11:58	08/29/16 14:58	1
Selenium	<0.0025		0.0025		mg/L		08/26/16 11:58	08/29/16 14:58	1
Thallium	<0.0020		0.0020		mg/L		08/26/16 11:58	08/29/16 14:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/26/16 14:00	08/29/16 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			08/29/16 01:30	1
Chloride	180	F1	10		mg/L			09/09/16 21:16	5
Fluoride	1.3		0.10		mg/L			08/26/16 12:15	1
Sulfate	390		130		mg/L			09/14/16 20:45	25

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1550				umhos/cm			08/25/16 10:56	1
Field Temperature	63.3				Degrees F			08/25/16 10:56	1
Ground Water Elevation	521.95				ft			08/25/16 10:56	1
Field pH	7.70				SU			08/25/16 10:56	1
Well bottom elevation	462.58				ft			08/25/16 10:56	1
Depth to water from land surface	0.14				ft			08/25/16 10:56	1
Depth to Water (ft from MP)	2.45				ft			08/25/16 10:56	1
Elevation of well (ft from MP)	524.40				ft			08/25/16 10:56	1

Client Sample ID: G45S
Date Collected: 08/25/16 13:44
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-7
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.031**		0.010		mg/L		08/26/16 11:58	09/03/16 08:12	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/16 11:58	08/29/16 15:02	1
Arsenic	**0.0076**		0.0010		mg/L		08/26/16 11:58	08/29/16 15:02	1
Barium	**0.036**		0.0025		mg/L		08/26/16 11:58	08/29/16 15:02	1
Beryllium	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 15:02	1
Boron	**0.47**		0.050		mg/L		08/26/16 11:58	08/30/16 15:46	1
Cadmium	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 15:02	1
Calcium	**94**		0.20		mg/L		08/26/16 11:58	08/29/16 15:02	1
Chromium	<0.0050		0.0050		mg/L		08/26/16 11:58	08/29/16 15:02	1
Cobalt	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 15:02	1
Lead	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 15:02	1
Molybdenum	**0.0086**		0.0050		mg/L		08/26/16 11:58	08/29/16 15:02	1
Selenium	<0.0025		0.0025		mg/L		08/26/16 11:58	08/29/16 15:02	1
Thallium	<0.0020		0.0020		mg/L		08/26/16 11:58	08/29/16 15:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/26/16 14:00	08/29/16 10:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**790**		10		mg/L			08/29/16 01:34	1
Chloride	**100**		10		mg/L			09/09/16 21:18	5
Fluoride	**0.35**		0.10		mg/L			08/26/16 12:17	1
Sulfate	**170**		50		mg/L			09/14/16 20:47	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**977**				umhos/cm			08/25/16 13:44	1
Field Temperature	**62.6**				Degrees F			08/25/16 13:44	1
Ground Water Elevation	**534.92**				ft			08/25/16 13:44	1
Field pH	**7.28**				SU			08/25/16 13:44	1
Well bottom elevation	**471.05**				ft			08/25/16 13:44	1
Depth to water from land surface	**65.42**				ft			08/25/16 13:44	1
Depth to Water (ft from MP)	**68.39**				ft			08/25/16 13:44	1
Elevation of well (ft from MP)	**603.31**				ft			08/25/16 13:44	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Client Sample ID: R08S
Date Collected: 08/25/16 14:57
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-8
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.13		0.010		mg/L		08/26/16 11:58	09/03/16 08:17	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/16 11:58	08/29/16 15:06	1
Arsenic	0.0015		0.0010		mg/L		08/26/16 11:58	08/29/16 15:06	1
Barium	0.053		0.0025		mg/L		08/26/16 11:58	08/29/16 15:06	1
Beryllium	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 15:06	1
Boron	6.3		0.50		mg/L		08/26/16 11:58	08/30/16 15:50	10
Cadmium	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 15:06	1
Calcium	120		0.20		mg/L		08/26/16 11:58	08/29/16 15:06	1
Chromium	<0.0050		0.0050		mg/L		08/26/16 11:58	08/29/16 15:06	1
Cobalt	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 15:06	1
Lead	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 15:06	1
Molybdenum	0.33		0.0050		mg/L		08/26/16 11:58	08/29/16 15:06	1
Selenium	0.0032		0.0025		mg/L		08/26/16 11:58	08/29/16 15:06	1
Thallium	<0.0020		0.0020		mg/L		08/26/16 11:58	08/29/16 15:06	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/26/16 14:00	08/29/16 10:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			08/29/16 01:38	1
Chloride	84		10		mg/L			09/09/16 21:18	5
Fluoride	0.19		0.10		mg/L			08/26/16 12:29	1
Sulfate	350		100		mg/L			09/14/16 20:48	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1038				umhos/cm			08/25/16 14:57	1
Field Temperature	60.3				Degrees F			08/25/16 14:57	1
Ground Water Elevation	511.18				ft			08/25/16 14:57	1
Field pH	7.54				SU			08/25/16 14:57	1
Well bottom elevation	453.08				ft			08/25/16 14:57	1
Depth to water from land surface	64.92				ft			08/25/16 14:57	1
Depth to Water (ft from MP)	67.47				ft			08/25/16 14:57	1
Elevation of well (ft from MP)	578.65				ft			08/25/16 14:57	1

Client Sample ID: G46S
Date Collected: 08/26/16 08:55
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-9
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.12		0.010		mg/L		08/29/16 09:10	09/03/16 07:32	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/29/16 09:10	08/29/16 16:56	1
Arsenic	0.0027		0.0010		mg/L		08/29/16 09:10	08/29/16 16:56	1
Barium	0.054		0.0025		mg/L		08/29/16 09:10	08/29/16 16:56	1
Beryllium	<0.0010	^	0.0010		mg/L		08/29/16 09:10	08/31/16 16:15	1
Boron	7.2		1.0		mg/L		08/29/16 09:10	08/30/16 16:50	20
Cadmium	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 16:56	1
Calcium	100		0.20		mg/L		08/29/16 09:10	08/29/16 16:56	1
Chromium	<0.0050		0.0050		mg/L		08/29/16 09:10	08/29/16 16:56	1
Cobalt	<0.0010		0.0010		mg/L		08/29/16 09:10	08/29/16 16:56	1
Lead	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 16:56	1
Molybdenum	1.2		0.0050		mg/L		08/29/16 09:10	08/29/16 16:56	1
Selenium	<0.0025		0.0025		mg/L		08/29/16 09:10	08/29/16 16:56	1
Thallium	<0.0020		0.0020		mg/L		08/29/16 09:10	08/29/16 16:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/29/16 13:30	08/30/16 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			08/29/16 01:42	1
Chloride	120		10		mg/L			09/09/16 21:21	5
Fluoride	0.35		0.10		mg/L			08/29/16 14:36	1
Sulfate	350		100		mg/L			09/14/16 20:52	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1350				umhos/cm			08/26/16 08:55	1
Field Temperature	64.2				Degrees F			08/26/16 08:55	1
Ground Water Elevation	504.00				ft			08/26/16 08:55	1
Field pH	7.48				SU			08/26/16 08:55	1
Well bottom elevation	453.62				ft			08/26/16 08:55	1
Depth to water from land surface	94.62				ft			08/26/16 08:55	1
Depth to Water (ft from MP)	97.32				ft			08/26/16 08:55	1
Elevation of well (ft from MP)	601.32				ft			08/26/16 08:55	1

Client Sample ID: R32S
Date Collected: 08/26/16 10:54
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-10
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.056**		0.010		mg/L		08/29/16 09:10	09/03/16 07:36	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/29/16 09:10	08/29/16 17:00	1
Arsenic	**0.0014**		0.0010		mg/L		08/29/16 09:10	08/29/16 17:00	1
Barium	**0.043**		0.0025		mg/L		08/29/16 09:10	08/29/16 17:00	1
Beryllium	<0.0010	^	0.0010		mg/L		08/29/16 09:10	08/31/16 16:18	1
Boron	**3.0**		0.50		mg/L		08/29/16 09:10	08/30/16 16:53	10
Cadmium	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 17:00	1
Calcium	**120**		0.20		mg/L		08/29/16 09:10	08/29/16 17:00	1
Chromium	<0.0050		0.0050		mg/L		08/29/16 09:10	08/29/16 17:00	1
Cobalt	<0.0010		0.0010		mg/L		08/29/16 09:10	08/29/16 17:00	1
Lead	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 17:00	1
Molybdenum	**0.48**		0.0050		mg/L		08/29/16 09:10	08/29/16 17:00	1
Selenium	<0.0025		0.0025		mg/L		08/29/16 09:10	08/29/16 17:00	1
Thallium	<0.0020		0.0020		mg/L		08/29/16 09:10	08/29/16 17:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/29/16 13:30	08/30/16 13:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**850**		10		mg/L			08/30/16 23:52	1
Chloride	**100**		10		mg/L			09/09/16 21:22	5
Fluoride	**0.40**		0.10		mg/L			08/29/16 17:12	1
Sulfate	**330**		100		mg/L			09/14/16 20:54	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**763**				umhos/cm			08/26/16 10:54	1
Field Temperature	**55.6**				Degrees F			08/26/16 10:54	1
Ground Water Elevation	**516.30**				ft			08/26/16 10:54	1
Field pH	**7.30**				SU			08/26/16 10:54	1
Well bottom elevation	**457.84**				ft			08/26/16 10:54	1
Depth to water from land surface	**18.48**				ft			08/26/16 10:54	1
Depth to Water (ft from MP)	**20.51**				ft			08/26/16 10:54	1
Elevation of well (ft from MP)	**536.81**				ft			08/26/16 10:54	1

Client Sample ID: G44S

Date Collected: 08/26/16 11:54
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-11

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.014**		0.010		mg/L		08/29/16 09:10	09/03/16 07:40	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/29/16 09:10	08/29/16 17:04	1
Arsenic	<0.0010		0.0010		mg/L		08/29/16 09:10	08/29/16 17:04	1
Barium	**0.053**		0.0025		mg/L		08/29/16 09:10	08/29/16 17:04	1
Beryllium	<0.0010	^	0.0010		mg/L		08/29/16 09:10	08/31/16 16:27	1
Boron	**0.89**		0.50		mg/L		08/29/16 09:10	08/30/16 16:57	10
Cadmium	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 17:04	1
Calcium	**120**		0.20		mg/L		08/29/16 09:10	08/29/16 17:04	1
Chromium	<0.0050		0.0050		mg/L		08/29/16 09:10	08/29/16 17:04	1
Cobalt	<0.0010		0.0010		mg/L		08/29/16 09:10	08/29/16 17:04	1
Lead	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 17:04	1
Molybdenum	**0.047**		0.0050		mg/L		08/29/16 09:10	08/29/16 17:04	1
Selenium	<0.0025		0.0025		mg/L		08/29/16 09:10	08/29/16 17:04	1
Thallium	<0.0020		0.0020		mg/L		08/29/16 09:10	08/29/16 17:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/29/16 13:30	08/30/16 13:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**710**		10		mg/L			08/30/16 23:55	1
Chloride	**36**		2.0		mg/L			09/09/16 21:22	1
Fluoride	**0.19**		0.10		mg/L			08/29/16 17:19	1
Sulfate	**110**		50		mg/L			09/14/16 20:55	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**923**				umhos/cm			08/26/16 11:54	1
Field Temperature	**63.3**				Degrees F			08/26/16 11:54	1
Ground Water Elevation	**506.04**				ft			08/26/16 11:54	1
Field pH	**7.12**				SU			08/26/16 11:54	1
Well bottom elevation	**455.11**				ft			08/26/16 11:54	1
Depth to water from land surface	**78.47**				ft			08/26/16 11:54	1
Depth to Water (ft from MP)	**80.65**				ft			08/26/16 11:54	1
Elevation of well (ft from MP)	**586.69**				ft			08/26/16 11:54	1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 349027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total Recoverable	Water	3005A	
MB 500-349027/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-349027/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 500-349027/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 349172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total Recoverable	Water	6010C	349027
MB 500-349027/1-A	Method Blank	Total Recoverable	Water	6010C	349027
LCS 500-349027/2-A	Lab Control Sample	Total Recoverable	Water	6010C	349027
LCSD 500-349027/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	349027

Prep Batch: 349208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total Recoverable	Water	3005A	
500-116075-3	G48S DUP	Total Recoverable	GW	3005A	
500-116075-4	G47S	Total Recoverable	Water	3005A	
MB 500-349208/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-349208/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 349240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	7470A	
500-116075-2	G48S	Total/NA	Water	7470A	
500-116075-3	G48S DUP	Total/NA	GW	7470A	
500-116075-4	G47S	Total/NA	Water	7470A	
MB 500-349240/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-349240/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 349313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total Recoverable	Water	6020A	349208
500-116075-3	G48S DUP	Total Recoverable	GW	6020A	349208
500-116075-4	G47S	Total Recoverable	Water	6020A	349208
MB 500-349208/1-A	Method Blank	Total Recoverable	Water	6020A	349208
LCS 500-349208/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349208

Prep Batch: 349425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total Recoverable	GW	3005A	
500-116075-6	G30S	Total Recoverable	GW	3005A	
500-116075-7	G45S	Total Recoverable	GW	3005A	
500-116075-8	R08S	Total Recoverable	GW	3005A	
MB 500-349425/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-349425/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-116075-8 MS	R08S	Total Recoverable	GW	3005A	
500-116075-8 MSD	R08S	Total Recoverable	GW	3005A	
500-116075-8 DU	R08S	Total Recoverable	GW	3005A	

Metals (Continued)

Prep Batch: 349453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total/NA	GW	7470A	
500-116075-6	G30S	Total/NA	GW	7470A	
500-116075-7	G45S	Total/NA	GW	7470A	
500-116075-8	R08S	Total/NA	GW	7470A	
MB 500-349453/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-349453/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 349463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	7470A	349240
500-116075-2	G48S	Total/NA	Water	7470A	349240
500-116075-3	G48S DUP	Total/NA	GW	7470A	349240
500-116075-4	G47S	Total/NA	Water	7470A	349240
MB 500-349240/12-A	Method Blank	Total/NA	Water	7470A	349240
LCS 500-349240/13-A	Lab Control Sample	Total/NA	Water	7470A	349240

Analysis Batch: 349579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total Recoverable	Water	6020A	349027
500-116075-3	G48S DUP	Total Recoverable	GW	6020A	349208
500-116075-4	G47S	Total Recoverable	Water	6020A	349208
MB 500-349027/1-A	Method Blank	Total Recoverable	Water	6020A	349027
MB 500-349208/1-A	Method Blank	Total Recoverable	Water	6020A	349208
LCS 500-349027/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349027
LCS 500-349208/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349208
LCSD 500-349027/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	349027

Prep Batch: 349588

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-9	G46S	Total Recoverable	Water	3005A	
500-116075-10	R32S	Total Recoverable	Water	3005A	
500-116075-11	G44S	Total Recoverable	Water	3005A	
MB 500-349588/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-349588/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 349621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total/NA	GW	7470A	349453
500-116075-6	G30S	Total/NA	GW	7470A	349453
500-116075-7	G45S	Total/NA	GW	7470A	349453
500-116075-8	R08S	Total/NA	GW	7470A	349453
MB 500-349453/12-A	Method Blank	Total/NA	Water	7470A	349453
LCS 500-349453/13-A	Lab Control Sample	Total/NA	Water	7470A	349453

Prep Batch: 349662

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-9	G46S	Total/NA	Water	7470A	
500-116075-10	R32S	Total/NA	Water	7470A	
500-116075-11	G44S	Total/NA	Water	7470A	
MB 500-349662/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-349662/13-A	Lab Control Sample	Total/NA	Water	7470A	

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Analysis Batch: 349806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total Recoverable	GW	6020A	349425
500-116075-6	G30S	Total Recoverable	GW	6020A	349425
500-116075-7	G45S	Total Recoverable	GW	6020A	349425
500-116075-8	R08S	Total Recoverable	GW	6020A	349425
500-116075-9	G46S	Total Recoverable	Water	6020A	349588
500-116075-10	R32S	Total Recoverable	Water	6020A	349588
500-116075-11	G44S	Total Recoverable	Water	6020A	349588
MB 500-349425/1-A	Method Blank	Total Recoverable	Water	6020A	349425
MB 500-349588/1-A	Method Blank	Total Recoverable	Water	6020A	349588
LCS 500-349425/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349425
LCS 500-349588/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349588
500-116075-8 MS	R08S	Total Recoverable	GW	6020A	349425
500-116075-8 MSD	R08S	Total Recoverable	GW	6020A	349425
500-116075-8 DU	R08S	Total Recoverable	GW	6020A	349425

Analysis Batch: 349874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-9	G46S	Total/NA	Water	7470A	349662
500-116075-10	R32S	Total/NA	Water	7470A	349662
500-116075-11	G44S	Total/NA	Water	7470A	349662
MB 500-349662/12-A	Method Blank	Total/NA	Water	7470A	349662
LCS 500-349662/13-A	Lab Control Sample	Total/NA	Water	7470A	349662

Analysis Batch: 350030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total Recoverable	GW	6020A	349425
500-116075-6	G30S	Total Recoverable	GW	6020A	349425
500-116075-7	G45S	Total Recoverable	GW	6020A	349425
500-116075-8	R08S	Total Recoverable	GW	6020A	349425
500-116075-9	G46S	Total Recoverable	Water	6020A	349588
500-116075-10	R32S	Total Recoverable	Water	6020A	349588
500-116075-11	G44S	Total Recoverable	Water	6020A	349588
MB 500-349425/1-A	Method Blank	Total Recoverable	Water	6020A	349425
MB 500-349588/1-A	Method Blank	Total Recoverable	Water	6020A	349588
LCS 500-349425/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349425
LCS 500-349588/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349588
500-116075-8 MS	R08S	Total Recoverable	GW	6020A	349425
500-116075-8 MSD	R08S	Total Recoverable	GW	6020A	349425
500-116075-8 DU	R08S	Total Recoverable	GW	6020A	349425

Analysis Batch: 350203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-9	G46S	Total Recoverable	Water	6020A	349588
500-116075-10	R32S	Total Recoverable	Water	6020A	349588
500-116075-11	G44S	Total Recoverable	Water	6020A	349588
MB 500-349588/1-A	Method Blank	Total Recoverable	Water	6020A	349588
LCS 500-349588/2-A	Lab Control Sample	Total Recoverable	Water	6020A	349588

Analysis Batch: 350507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total Recoverable	GW	6010C	349425
500-116075-6	G30S	Total Recoverable	GW	6010C	349425
500-116075-7	G45S	Total Recoverable	GW	6010C	349425

Metals (Continued)

Analysis Batch: 350507 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-8	R08S	Total Recoverable	GW	6010C	349425
500-116075-9	G46S	Total Recoverable	Water	6010C	349588
500-116075-10	R32S	Total Recoverable	Water	6010C	349588
500-116075-11	G44S	Total Recoverable	Water	6010C	349588
MB 500-349425/1-A	Method Blank	Total Recoverable	Water	6010C	349425
MB 500-349588/1-A	Method Blank	Total Recoverable	Water	6010C	349588
LCS 500-349425/2-A	Lab Control Sample	Total Recoverable	Water	6010C	349425
LCS 500-349588/2-A	Lab Control Sample	Total Recoverable	Water	6010C	349588
500-116075-8 MS	R08S	Total Recoverable	GW	6010C	349425
500-116075-8 MSD	R08S	Total Recoverable	GW	6010C	349425
500-116075-8 DU	R08S	Total Recoverable	GW	6010C	349425

Prep Batch: 352154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total Recoverable	Water	3005A	
500-116075-3	G48S DUP	Total Recoverable	GW	3005A	
500-116075-4	G47S	Total Recoverable	Water	3005A	
MB 500-352154/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-352154/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 352255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total Recoverable	Water	6010C	352154
500-116075-3	G48S DUP	Total Recoverable	GW	6010C	352154
500-116075-4	G47S	Total Recoverable	Water	6010C	352154
MB 500-352154/1-A	Method Blank	Total Recoverable	Water	6010C	352154
LCS 500-352154/2-A	Lab Control Sample	Total Recoverable	Water	6010C	352154

Analysis Batch: 357246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total Recoverable	Water	6020A	349208

General Chemistry

Analysis Batch: 349166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	SM 2540C	
500-116075-2	G48S	Total/NA	Water	SM 2540C	
500-116075-3	G48S DUP	Total/NA	GW	SM 2540C	
500-116075-4	G47S	Total/NA	Water	SM 2540C	
MB 500-349166/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-349166/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-116075-1 MS	G20S	Total/NA	Water	SM 2540C	
500-116075-1 DU	G20S	Total/NA	Water	SM 2540C	

Analysis Batch: 349459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total/NA	Water	SM 4500 F C	
500-116075-3	G48S DUP	Total/NA	GW	SM 4500 F C	
500-116075-4	G47S	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 349459 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total/NA	GW	SM 4500 F C	
500-116075-6	G30S	Total/NA	GW	SM 4500 F C	
500-116075-7	G45S	Total/NA	GW	SM 4500 F C	
500-116075-8	R08S	Total/NA	GW	SM 4500 F C	
MB 500-349459/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-349459/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-116075-2 MS	G48S	Total/NA	Water	SM 4500 F C	
500-116075-2 MSD	G48S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 349541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-5	T03S	Total/NA	GW	SM 2540C	
500-116075-6	G30S	Total/NA	GW	SM 2540C	
500-116075-7	G45S	Total/NA	GW	SM 2540C	
500-116075-8	R08S	Total/NA	GW	SM 2540C	
500-116075-9	G46S	Total/NA	Water	SM 2540C	
MB 500-349541/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-349541/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 349715

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	SM 4500 F C	
500-116075-9	G46S	Total/NA	Water	SM 4500 F C	
500-116075-10	R32S	Total/NA	Water	SM 4500 F C	
500-116075-11	G44S	Total/NA	Water	SM 4500 F C	
MB 500-349715/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-349715/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-349715/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-349715/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 349971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-10	R32S	Total/NA	Water	SM 2540C	
500-116075-11	G44S	Total/NA	Water	SM 2540C	
MB 500-349971/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-349971/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 351154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	SM 4500 Cl- E	
500-116075-2	G48S	Total/NA	Water	SM 4500 Cl- E	
500-116075-3	G48S DUP	Total/NA	GW	SM 4500 Cl- E	
500-116075-4	G47S	Total/NA	Water	SM 4500 Cl- E	
500-116075-5	T03S	Total/NA	GW	SM 4500 Cl- E	
500-116075-6	G30S	Total/NA	GW	SM 4500 Cl- E	
500-116075-7	G45S	Total/NA	GW	SM 4500 Cl- E	
500-116075-8	R08S	Total/NA	GW	SM 4500 Cl- E	
500-116075-9	G46S	Total/NA	Water	SM 4500 Cl- E	
500-116075-10	R32S	Total/NA	Water	SM 4500 Cl- E	
500-116075-11	G44S	Total/NA	Water	SM 4500 Cl- E	
MB 500-351154/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 351154 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-351154/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-116075-6 MS	G30S	Total/NA	GW	SM 4500 Cl- E	
500-116075-6 MSD	G30S	Total/NA	GW	SM 4500 Cl- E	

Analysis Batch: 351479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	SM 4500 SO4 E	
MB 500-351479/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-351479/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 351856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total/NA	Water	SM 4500 SO4 E	
500-116075-3	G48S DUP	Total/NA	GW	SM 4500 SO4 E	
500-116075-4	G47S	Total/NA	Water	SM 4500 SO4 E	
500-116075-5	T03S	Total/NA	GW	SM 4500 SO4 E	
500-116075-6	G30S	Total/NA	GW	SM 4500 SO4 E	
500-116075-7	G45S	Total/NA	GW	SM 4500 SO4 E	
500-116075-8	R08S	Total/NA	GW	SM 4500 SO4 E	
500-116075-9	G46S	Total/NA	Water	SM 4500 SO4 E	
500-116075-10	R32S	Total/NA	Water	SM 4500 SO4 E	
500-116075-11	G44S	Total/NA	Water	SM 4500 SO4 E	
MB 500-351856/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
MB 500-351856/32	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-351856/33	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 500-351856/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-116075-8 MS	R08S	Total/NA	GW	SM 4500 SO4 E	
500-116075-8 MSD	R08S	Total/NA	GW	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 349682

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	Field Sampling	
500-116075-2	G48S	Total/NA	Water	Field Sampling	
500-116075-3	G48S DUP	Total/NA	GW	Field Sampling	
500-116075-4	G47S	Total/NA	Water	Field Sampling	
500-116075-5	T03S	Total/NA	GW	Field Sampling	
500-116075-6	G30S	Total/NA	GW	Field Sampling	
500-116075-7	G45S	Total/NA	GW	Field Sampling	
500-116075-8	R08S	Total/NA	GW	Field Sampling	
500-116075-9	G46S	Total/NA	Water	Field Sampling	
500-116075-10	R32S	Total/NA	Water	Field Sampling	
500-116075-11	G44S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-349027/1-A
Matrix: Water
Analysis Batch: 349172

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/24/16 08:24	08/24/16 20:20	1

Lab Sample ID: LCS 500-349027/2-A
Matrix: Water
Analysis Batch: 349172

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.536		mg/L		107	80 - 120

Lab Sample ID: LCSD 500-349027/3-A
Matrix: Water
Analysis Batch: 349172

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 349027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.500	0.508		mg/L		102	80 - 120	5	20

Lab Sample ID: MB 500-349425/1-A
Matrix: Water
Analysis Batch: 350507

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/26/16 11:58	09/03/16 07:47	1

Lab Sample ID: LCS 500-349425/2-A
Matrix: Water
Analysis Batch: 350507

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.498		mg/L		100	80 - 120

Lab Sample ID: 500-116075-8 MS
Matrix: GW
Analysis Batch: 350507

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.13		0.500	0.671		mg/L		107	75 - 125

Lab Sample ID: 500-116075-8 MSD
Matrix: GW
Analysis Batch: 350507

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.13		0.500	0.612		mg/L		96	75 - 125	9	20

Lab Sample ID: 500-116075-8 DU
Matrix: GW
Analysis Batch: 350507

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.13		0.129		mg/L		3	20

Lab Sample ID: MB 500-349588/1-A
Matrix: Water
Analysis Batch: 350507

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/29/16 09:10	09/03/16 06:20	1

Lab Sample ID: LCS 500-349588/2-A
Matrix: Water
Analysis Batch: 350507

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.487		mg/L		97	80 - 120

Lab Sample ID: MB 500-352154/1-A
Matrix: Water
Analysis Batch: 352255

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 352154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		09/17/16 11:28	09/17/16 18:33	1

Lab Sample ID: LCS 500-352154/2-A
Matrix: Water
Analysis Batch: 352255

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 352154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.502		mg/L		100	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-349027/1-A
Matrix: Water
Analysis Batch: 349579

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349027

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/24/16 08:24	08/26/16 13:43	1
Arsenic	<0.0010		0.0010		mg/L		08/24/16 08:24	08/26/16 13:43	1
Barium	<0.0025		0.0025		mg/L		08/24/16 08:24	08/26/16 13:43	1
Beryllium	<0.0010		0.0010		mg/L		08/24/16 08:24	08/26/16 13:43	1
Boron	<0.050		0.050		mg/L		08/24/16 08:24	08/26/16 13:43	1
Cadmium	<0.00050		0.00050		mg/L		08/24/16 08:24	08/26/16 13:43	1
Calcium	<0.20		0.20		mg/L		08/24/16 08:24	08/26/16 13:43	1
Chromium	<0.0050		0.0050		mg/L		08/24/16 08:24	08/26/16 13:43	1
Cobalt	<0.0010		0.0010		mg/L		08/24/16 08:24	08/26/16 13:43	1
Lead	<0.00050		0.00050		mg/L		08/24/16 08:24	08/26/16 13:43	1
Molybdenum	<0.0050		0.0050		mg/L		08/24/16 08:24	08/26/16 13:43	1
Selenium	<0.0025		0.0025		mg/L		08/24/16 08:24	08/26/16 13:43	1
Thallium	<0.0020		0.0020		mg/L		08/24/16 08:24	08/26/16 13:43	1

Lab Sample ID: LCS 500-349027/2-A
Matrix: Water
Analysis Batch: 349579

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.509		mg/L		102	80 - 120
Arsenic	0.100	0.103		mg/L		103	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-349027/2-A
Matrix: Water
Analysis Batch: 349579

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349027

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.02		mg/L		101	80 - 120
Beryllium	0.0500	0.0542		mg/L		108	80 - 120
Boron	1.00	1.06		mg/L		106	80 - 120
Cadmium	0.0500	0.0534		mg/L		107	80 - 120
Calcium	10.0	9.30		mg/L		93	80 - 120
Chromium	0.200	0.212		mg/L		106	80 - 120
Cobalt	0.500	0.526		mg/L		105	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120
Thallium	0.0500	0.0514		mg/L		103	80 - 120

Lab Sample ID: LCSD 500-349027/3-A
Matrix: Water
Analysis Batch: 349579

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 349027

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.500	0.519		mg/L		104	80 - 120	2	20
Arsenic	0.100	0.106		mg/L		106	80 - 120	2	20
Barium	2.00	2.09		mg/L		105	80 - 120	4	20
Beryllium	0.0500	0.0529		mg/L		106	80 - 120	2	20
Boron	1.00	1.05		mg/L		105	80 - 120	1	20
Cadmium	0.0500	0.0544		mg/L		109	80 - 120	2	20
Calcium	10.0	9.48		mg/L		95	80 - 120	2	20
Chromium	0.200	0.216		mg/L		108	80 - 120	2	20
Cobalt	0.500	0.540		mg/L		108	80 - 120	3	20
Lead	0.100	0.112		mg/L		112	80 - 120	3	20
Molybdenum	1.00	1.07		mg/L		107	80 - 120	5	20
Selenium	0.100	0.104		mg/L		104	80 - 120	1	20
Thallium	0.0500	0.0534		mg/L		107	80 - 120	4	20

Lab Sample ID: MB 500-349208/1-A
Matrix: Water
Analysis Batch: 349313

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/25/16 08:31	08/25/16 14:38	1
Arsenic	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 14:38	1
Barium	<0.0025		0.0025		mg/L		08/25/16 08:31	08/25/16 14:38	1
Beryllium	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 14:38	1
Cadmium	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 14:38	1
Calcium	<0.20		0.20		mg/L		08/25/16 08:31	08/25/16 14:38	1
Chromium	<0.0050		0.0050		mg/L		08/25/16 08:31	08/25/16 14:38	1
Cobalt	<0.0010		0.0010		mg/L		08/25/16 08:31	08/25/16 14:38	1
Lead	<0.00050		0.00050		mg/L		08/25/16 08:31	08/25/16 14:38	1
Molybdenum	<0.0050		0.0050		mg/L		08/25/16 08:31	08/25/16 14:38	1
Selenium	<0.0025		0.0025		mg/L		08/25/16 08:31	08/25/16 14:38	1
Thallium	<0.0020		0.0020		mg/L		08/25/16 08:31	08/25/16 14:38	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-349208/1-A
Matrix: Water
Analysis Batch: 349579

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349208

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		08/25/16 08:31	08/26/16 16:03	1

Lab Sample ID: LCS 500-349208/2-A
Matrix: Water
Analysis Batch: 349313

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.524		mg/L		105	80 - 120
Arsenic	0.100	0.105		mg/L		105	80 - 120
Barium	0.500	0.519		mg/L		104	80 - 120
Beryllium	0.0500	0.0542		mg/L		108	80 - 120
Cadmium	0.0500	0.0541		mg/L		108	80 - 120
Calcium	10.0	9.85		mg/L		98	80 - 120
Chromium	0.200	0.212		mg/L		106	80 - 120
Cobalt	0.500	0.546		mg/L		109	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: LCS 500-349208/2-A
Matrix: Water
Analysis Batch: 349579

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349208

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.12		mg/L		112	80 - 120

Lab Sample ID: MB 500-349425/1-A
Matrix: Water
Analysis Batch: 349806

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/26/16 11:58	08/29/16 14:47	1
Arsenic	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:47	1
Barium	<0.0025		0.0025		mg/L		08/26/16 11:58	08/29/16 14:47	1
Beryllium	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:47	1
Cadmium	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 14:47	1
Calcium	<0.20		0.20		mg/L		08/26/16 11:58	08/29/16 14:47	1
Chromium	<0.0050		0.0050		mg/L		08/26/16 11:58	08/29/16 14:47	1
Cobalt	<0.0010		0.0010		mg/L		08/26/16 11:58	08/29/16 14:47	1
Lead	<0.00050		0.00050		mg/L		08/26/16 11:58	08/29/16 14:47	1
Molybdenum	<0.0050		0.0050		mg/L		08/26/16 11:58	08/29/16 14:47	1
Selenium	<0.0025		0.0025		mg/L		08/26/16 11:58	08/29/16 14:47	1
Thallium	<0.0020		0.0020		mg/L		08/26/16 11:58	08/29/16 14:47	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-349425/1-A
Matrix: Water
Analysis Batch: 350030

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		08/26/16 11:58	08/30/16 15:19	1

Lab Sample ID: LCS 500-349425/2-A
Matrix: Water
Analysis Batch: 349806

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.483		mg/L		97	80 - 120
Arsenic	0.100	0.0956		mg/L		96	80 - 120
Barium	2.00	1.93		mg/L		96	80 - 120
Beryllium	0.0500	0.0495		mg/L		99	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	10.0	12.0		mg/L		120	80 - 120
Chromium	0.200	0.195		mg/L		98	80 - 120
Cobalt	0.500	0.501		mg/L		100	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Molybdenum	1.00	0.969		mg/L		97	80 - 120
Selenium	0.100	0.0970		mg/L		97	80 - 120
Thallium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: LCS 500-349425/2-A
Matrix: Water
Analysis Batch: 350030

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.993		mg/L		99	80 - 120

Lab Sample ID: 500-116075-8 MS
Matrix: GW
Analysis Batch: 349806

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.0000720		0.500	0.521		mg/L		104	75 - 125
Arsenic	0.000198		0.100	0.107		mg/L		107	75 - 125
Barium	0.0124		2.00	2.12		mg/L		105	75 - 125
Beryllium	-0.000158		0.0500	0.0494		mg/L		99	75 - 125
Cadmium	-0.00000500		0.0500	0.0533		mg/L		107	75 - 125
Calcium	25.6		10.0	139		mg/L		1134	75 - 125
Chromium	0.0000300		0.200	0.206		mg/L		103	75 - 125
Cobalt	0.0000530		0.500	0.518		mg/L		104	75 - 125
Lead	0.0000550		0.100	0.107		mg/L		107	75 - 125
Molybdenum	0.0678		1.00	1.40		mg/L		133	75 - 125
Selenium	0.000775		0.100	0.0703		mg/L		70	75 - 125
Thallium	0.0000790		0.100	0.109		mg/L		109	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-116075-8 MS
Matrix: GW
Analysis Batch: 350030

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	6.3		1.00	7.60	4	mg/L		129	75 - 125

Lab Sample ID: 500-116075-8 MSD
Matrix: GW
Analysis Batch: 349806

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.0000720		0.500	0.459		mg/L		92	75 - 125	13	20
Arsenic	0.000198		0.100	0.0942		mg/L		94	75 - 125	13	20
Barium	0.0124		2.00	1.88		mg/L		93	75 - 125	12	20
Beryllium	-0.000158		0.0500	0.0436		mg/L		87	75 - 125	13	20
Cadmium	-0.00000500		0.0500	0.0464		mg/L		93	75 - 125	14	20
Calcium	25.6		10.0	133		mg/L		1069	75 - 125	5	20
Chromium	0.0000300		0.200	0.184		mg/L		92	75 - 125	12	20
Cobalt	0.0000530		0.500	0.449		mg/L		90	75 - 125	14	20
Lead	0.0000550		0.100	0.0951		mg/L		95	75 - 125	12	20
Molybdenum	0.0678		1.00	1.22		mg/L		116	75 - 125	13	20
Selenium	0.000775		0.100	0.0627		mg/L		63	75 - 125	11	20
Thallium	0.0000790		0.100	0.0962		mg/L		96	75 - 125	12	20

Lab Sample ID: 500-116075-8 MSD
Matrix: GW
Analysis Batch: 350030

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	6.3		1.00	6.92	4	mg/L		61	75 - 125	9	20

Lab Sample ID: 500-116075-8 DU
Matrix: GW
Analysis Batch: 349806

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	0.0000720		<0.0030		mg/L		NC	20
Arsenic	0.000198		0.00149		mg/L		NC	20
Barium	0.0124		0.0507		mg/L		122	20
Beryllium	-0.000158		<0.0010		mg/L		NC	20
Cadmium	-0.00000500		<0.00050		mg/L		NC	20
Calcium	25.6		120		mg/L		130	20
Chromium	0.0000300		<0.0050		mg/L		NC	20
Cobalt	0.0000530		<0.0010		mg/L		NC	20
Lead	0.0000550		<0.00050		mg/L		NC	20
Molybdenum	0.0678		0.323		mg/L		131	20
Selenium	0.000775		0.00312		mg/L		NC	20
Thallium	0.0000790		<0.0020		mg/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-116075-8 DU
Matrix: GW
Analysis Batch: 350030

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 349425

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	6.3		6.15		mg/L		3	20

Lab Sample ID: MB 500-349588/1-A
Matrix: Water
Analysis Batch: 349806

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/29/16 09:10	08/29/16 15:48	1
Arsenic	<0.0010		0.0010		mg/L		08/29/16 09:10	08/29/16 15:48	1
Barium	<0.0025		0.0025		mg/L		08/29/16 09:10	08/29/16 15:48	1
Cadmium	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 15:48	1
Calcium	<0.20		0.20		mg/L		08/29/16 09:10	08/29/16 15:48	1
Chromium	<0.0050		0.0050		mg/L		08/29/16 09:10	08/29/16 15:48	1
Cobalt	<0.0010		0.0010		mg/L		08/29/16 09:10	08/29/16 15:48	1
Lead	<0.00050		0.00050		mg/L		08/29/16 09:10	08/29/16 15:48	1
Molybdenum	<0.0050		0.0050		mg/L		08/29/16 09:10	08/29/16 15:48	1
Selenium	<0.0025		0.0025		mg/L		08/29/16 09:10	08/29/16 15:48	1
Thallium	<0.0020		0.0020		mg/L		08/29/16 09:10	08/29/16 15:48	1

Lab Sample ID: MB 500-349588/1-A
Matrix: Water
Analysis Batch: 350030

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		08/29/16 09:10	08/30/16 16:21	1

Lab Sample ID: MB 500-349588/1-A
Matrix: Water
Analysis Batch: 350203

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010		0.0010		mg/L		08/29/16 09:10	08/31/16 13:33	1

Lab Sample ID: LCS 500-349588/2-A
Matrix: Water
Analysis Batch: 349806

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.468		mg/L		94	80 - 120
Arsenic	0.100	0.0929		mg/L		93	80 - 120
Barium	2.00	1.90		mg/L		95	80 - 120
Cadmium	0.0500	0.0487		mg/L		97	80 - 120
Calcium	10.0	11.7		mg/L		117	80 - 120
Chromium	0.200	0.192		mg/L		96	80 - 120
Cobalt	0.500	0.494		mg/L		99	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Molybdenum	1.00	0.934		mg/L		93	80 - 120
Selenium	0.100	0.0936		mg/L		94	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: LCS 500-349588/2-A
Matrix: Water
Analysis Batch: 350030

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: LCS 500-349588/2-A
Matrix: Water
Analysis Batch: 350203

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 349588

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0504		mg/L		101	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-349240/12-A
Matrix: Water
Analysis Batch: 349463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349240

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/25/16 16:00	08/26/16 13:39	1

Lab Sample ID: LCS 500-349240/13-A
Matrix: Water
Analysis Batch: 349463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349240

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00203		mg/L		102	80 - 120

Lab Sample ID: MB 500-349453/12-A
Matrix: Water
Analysis Batch: 349621

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349453

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/26/16 14:00	08/29/16 10:25	1

Lab Sample ID: LCS 500-349453/13-A
Matrix: Water
Analysis Batch: 349621

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349453

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00200		mg/L		100	80 - 120

Lab Sample ID: MB 500-349662/12-A
Matrix: Water
Analysis Batch: 349874

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349662

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/29/16 13:30	08/30/16 12:44	1

Lab Sample ID: LCS 500-349662/13-A
Matrix: Water
Analysis Batch: 349874

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349662

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00185		mg/L		93	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-349166/1
Matrix: Water
Analysis Batch: 349166

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/25/16 01:23	1

Lab Sample ID: LCS 500-349166/2
Matrix: Water
Analysis Batch: 349166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	298		mg/L		119	80 - 120

Lab Sample ID: 500-116075-1 MS
Matrix: Water
Analysis Batch: 349166

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	420		250	726		mg/L		123	75 - 125

Lab Sample ID: 500-116075-1 DU
Matrix: Water
Analysis Batch: 349166

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	420		426		mg/L		2	5

Lab Sample ID: MB 500-349541/1
Matrix: Water
Analysis Batch: 349541

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/29/16 00:12	1

Lab Sample ID: LCS 500-349541/2
Matrix: Water
Analysis Batch: 349541

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	286		mg/L		114	80 - 120

Lab Sample ID: MB 500-349971/1
Matrix: Water
Analysis Batch: 349971

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			08/30/16 23:06	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-349971/2
Matrix: Water
Analysis Batch: 349971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	296		mg/L		118	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-351154/4
Matrix: Water
Analysis Batch: 351154

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			09/09/16 19:57	1

Lab Sample ID: LCS 500-351154/5
Matrix: Water
Analysis Batch: 351154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.4		mg/L		97	80 - 120

Lab Sample ID: 500-116075-6 MS
Matrix: GW
Analysis Batch: 351154

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	180	F1	50.0	216		mg/L		76	75 - 125

Lab Sample ID: 500-116075-6 MSD
Matrix: GW
Analysis Batch: 351154

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	180	F1	50.0	209	F1	mg/L		61	75 - 125	4	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-349459/3
Matrix: Water
Analysis Batch: 349459

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			08/26/16 11:55	1

Lab Sample ID: LCS 500-349459/4
Matrix: Water
Analysis Batch: 349459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.1		mg/L		101	80 - 120

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 500-116075-2 MS
Matrix: Water
Analysis Batch: 349459

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	1.4		5.00	6.63		mg/L		104	75 - 125		

Lab Sample ID: 500-116075-2 MSD
Matrix: Water
Analysis Batch: 349459

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.4		5.00	6.54		mg/L		102	75 - 125	1	20

Lab Sample ID: MB 500-349715/3
Matrix: Water
Analysis Batch: 349715

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			08/29/16 14:17	1

Lab Sample ID: MB 500-349715/31
Matrix: Water
Analysis Batch: 349715

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			08/29/16 15:52	1

Lab Sample ID: LCS 500-349715/32
Matrix: Water
Analysis Batch: 349715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	10.0	11.0		mg/L		110	80 - 120		

Lab Sample ID: LCS 500-349715/4
Matrix: Water
Analysis Batch: 349715

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	10.0	10.4		mg/L		104	80 - 120		

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-351479/3
Matrix: Water
Analysis Batch: 351479

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			09/09/16 20:02	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 500-351479/4
Matrix: Water
Analysis Batch: 351479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.3		mg/L		101	80 - 120

Lab Sample ID: MB 500-351856/3
Matrix: Water
Analysis Batch: 351856

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			09/14/16 19:57	1

Lab Sample ID: MB 500-351856/32
Matrix: Water
Analysis Batch: 351856

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			09/14/16 20:38	1

Lab Sample ID: LCS 500-351856/33
Matrix: Water
Analysis Batch: 351856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.6		mg/L		103	80 - 120

Lab Sample ID: LCS 500-351856/4
Matrix: Water
Analysis Batch: 351856

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.3		mg/L		101	80 - 120

Lab Sample ID: 500-116075-8 MS
Matrix: GW
Analysis Batch: 351856

Client Sample ID: R08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	350		400	836		mg/L		120	75 - 125

Lab Sample ID: 500-116075-8 MSD
Matrix: GW
Analysis Batch: 351856

Client Sample ID: R08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	350		400	852		mg/L		124	75 - 125	2	20

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Chain of Custody Record

Lab Job #: 500-116075

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 5.1

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: Midwest Generation - EME LLC
Client Project #:
Project Name: Joliet #9 CCR -
Project Location/State: Westmont, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative: 3	3	8							
							Parameter: Radium 226/228	Total Metals	Cl, F, SO4, TDS							
1		G20S	08/23/16	0945	5	W	1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. Cool to 4°
4. Cool to 4°
5. Cool to 4°
6. °

500-116075 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	08/23/16	1530	[signature]	TA-MT	08/23/16	15:30
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-116075

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 4.6, 3.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR
Project Location/State: Westmont, FL
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
2		G485	08/24/16	0935	5	W		1	1	1							
3		G485 DUP	08/24/16	0935	5	W		1	1	1							
4		G475	08/24/16	1340	5	W		1	1	1							

500-116075 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	08/24/16	1535		TA-HK	08/24/16	15:35
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500-(1209)

10/21/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500- 116075
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: (2.8)(3.5)

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	1							
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							Comments
5		TO3 S	08/25/16	0923	5	W		1	1	1							
6		G30S	08/25/16	1056	5	W		1	1	1							
7		G45S	08/25/16	1344	5	W		1	1	1							
8		R08S	08/25/16	1457	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DF	TML	08/25/16	1610	[signature]	TA	08/26/16	0800
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier ✓
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

500-116075 COC

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-116075 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-116075

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.3

Client: Midwest Generation
Client Project #: EME LLC
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
9		G465	08/26/16	0855	5	W		—	—	—							
10		R325	08/26/16	1054	5	W		—	—	—							
11		G445	08/26/16	1154	5	W		—	—	—							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TCI	08/26/16	1335	[signature]	TA-CHI	8/26/16	1335
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-116075-1

Login Number: 116075
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.1,3.9,4.6,2.8,3.5,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client Sample ID: G20S

Lab Sample ID: 500-116075-1

Date Collected: 08/23/16 09:45

Matrix: Water

Date Received: 08/23/16 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349027	08/24/16 08:24	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	349172	08/24/16 20:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			349027	08/24/16 08:24	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	349579	08/26/16 13:55	FXG	TAL CHI
Total/NA	Prep	7470A			349240	08/25/16 16:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349463	08/26/16 13:48	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349166	08/25/16 01:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	351154	09/09/16 20:02	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349715	08/29/16 14:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	351479		CRB	TAL CHI
					(Start)	09/09/16 20:26		
					(End)	09/09/16 20:28		
Total/NA	Analysis	Field Sampling		1	349682	08/23/16 09:45	JVB	TAL CHI

Client Sample ID: G48S

Lab Sample ID: 500-116075-2

Date Collected: 08/24/16 09:35

Matrix: Water

Date Received: 08/24/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			352154	09/17/16 11:28	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	352255	09/17/16 18:41	PJ1	TAL CHI
Total Recoverable	Prep	3005A			349208	08/25/16 08:31	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	349313	08/25/16 15:41	FXG	TAL CHI
Total Recoverable	Prep	3005A			349208	08/25/16 08:31	JNH	TAL CHI
Total Recoverable	Analysis	6020A		20	357246	10/20/16 18:21	FXG	TAL CHI
Total/NA	Prep	7470A			349240	08/25/16 16:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349463	08/26/16 13:50	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349166	08/25/16 01:42	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:13	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349459	08/26/16 12:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		25	351856		CRB	TAL CHI
					(Start)	09/14/16 20:24		
					(End)	09/14/16 20:26		
Total/NA	Analysis	Field Sampling		1	349682	08/24/16 09:35	JVB	TAL CHI

Client Sample ID: G48S DUP

Lab Sample ID: 500-116075-3

Date Collected: 08/24/16 09:35

Matrix: GW

Date Received: 08/24/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			352154	09/17/16 11:28	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	352255	09/17/16 18:46	PJ1	TAL CHI

Client Sample ID: G48S DUP

Lab Sample ID: 500-116075-3

Date Collected: 08/24/16 09:35
Matrix: GW
Date Received: 08/24/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349208	08/25/16 08:31	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	349313	08/25/16 15:45	FXG	TAL CHI
Total Recoverable	Prep	3005A			349208	08/25/16 08:31	JNH	TAL CHI
Total Recoverable	Analysis	6020A		20	349579	08/26/16 16:15	FXG	TAL CHI
Total/NA	Prep	7470A			349240	08/25/16 16:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349463	08/26/16 13:51	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349166	08/25/16 01:46	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:14	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349459	08/26/16 12:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		25	351856		CRB	TAL CHI
					(Start)	09/14/16 20:26		
					(End)	09/14/16 20:27		
Total/NA	Analysis	Field Sampling		1	349682	08/24/16 09:35	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-116075-4

Date Collected: 08/24/16 13:40
Matrix: Water
Date Received: 08/24/16 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			352154	09/17/16 11:28	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	352255	09/17/16 18:52	PJ1	TAL CHI
Total Recoverable	Prep	3005A			349208	08/25/16 08:31	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	349313	08/25/16 15:48	FXG	TAL CHI
Total Recoverable	Prep	3005A			349208	08/25/16 08:31	JNH	TAL CHI
Total Recoverable	Analysis	6020A		20	349579	08/26/16 16:19	FXG	TAL CHI
Total/NA	Prep	7470A			349240	08/25/16 16:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349463	08/26/16 13:53	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349166	08/25/16 01:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:15	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349459	08/26/16 12:09	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	351856		CRB	TAL CHI
					(Start)	09/14/16 20:27		
					(End)	09/14/16 20:28		
Total/NA	Analysis	Field Sampling		1	349682	08/24/16 13:40	JVB	TAL CHI

Client Sample ID: T03S

Lab Sample ID: 500-116075-5

Date Collected: 08/25/16 09:23
Matrix: GW
Date Received: 08/26/16 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	350507	09/03/16 08:03	KML	TAL CHI
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI

Client Sample ID: T03S

Lab Sample ID: 500-116075-5

Date Collected: 08/25/16 09:23

Matrix: GW

Date Received: 08/26/16 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020A		1	349806	08/29/16 14:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	350030	08/30/16 15:39	FXG	TAL CHI
Total/NA	Prep	7470A			349453	08/26/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349621	08/29/16 10:28	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349541	08/29/16 01:26	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:15	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349459	08/26/16 12:11	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	351856		CRB	TAL CHI
					(Start)	09/14/16 20:57		
					(End)	09/14/16 20:58		
Total/NA	Analysis	Field Sampling		1	349682	08/25/16 09:23	JVB	TAL CHI

Client Sample ID: G30S

Lab Sample ID: 500-116075-6

Date Collected: 08/25/16 10:56

Matrix: GW

Date Received: 08/26/16 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	350507	09/03/16 08:07	KML	TAL CHI
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	349806	08/29/16 14:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6020A		10	350030	08/30/16 15:42	FXG	TAL CHI
Total/NA	Prep	7470A			349453	08/26/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349621	08/29/16 10:32	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349541	08/29/16 01:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:16	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349459	08/26/16 12:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		25	351856		CRB	TAL CHI
					(Start)	09/14/16 20:45		
					(End)	09/14/16 20:47		
Total/NA	Analysis	Field Sampling		1	349682	08/25/16 10:56	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-116075-7

Date Collected: 08/25/16 13:44

Matrix: GW

Date Received: 08/26/16 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	350507	09/03/16 08:12	KML	TAL CHI
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	349806	08/29/16 15:02	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	350030	08/30/16 15:46	FXG	TAL CHI
Total/NA	Prep	7470A			349453	08/26/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349621	08/29/16 10:34	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349541	08/29/16 01:34	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349459	08/26/16 12:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	351856		CRB	TAL CHI
					(Start)	09/14/16 20:47		
					(End)	09/14/16 20:48		
Total/NA	Analysis	Field Sampling		1	349682	08/25/16 13:44	JVB	TAL CHI

Client Sample ID: R08S

Date Collected: 08/25/16 14:57
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-8
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	350507	09/03/16 08:17	KML	TAL CHI
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	349806	08/29/16 15:06	FXG	TAL CHI
Total Recoverable	Prep	3005A			349425	08/26/16 11:58	JNH	TAL CHI
Total Recoverable	Analysis	6020A		10	350030	08/30/16 15:50	FXG	TAL CHI
Total/NA	Prep	7470A			349453	08/26/16 14:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349621	08/29/16 10:35	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349541	08/29/16 01:38	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349459	08/26/16 12:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	351856		CRB	TAL CHI
					(Start)	09/14/16 20:48		
					(End)	09/14/16 20:50		
Total/NA	Analysis	Field Sampling		1	349682	08/25/16 14:57	JVB	TAL CHI

Client Sample ID: G46S

Date Collected: 08/26/16 08:55
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	350507	09/03/16 07:32	KML	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	349806	08/29/16 16:56	FXG	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	350030	08/30/16 16:50	FXG	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	350203	08/31/16 16:15	FXG	TAL CHI
Total/NA	Prep	7470A			349662	08/29/16 13:30	MJD	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Client Sample ID: G46S

Date Collected: 08/26/16 08:55
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7470A		1	349874	08/30/16 13:19	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349541	08/29/16 01:42	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349715	08/29/16 14:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	351856		CRB	TAL CHI
					(Start)	09/14/16 20:52		
					(End)	09/14/16 20:54		
Total/NA	Analysis	Field Sampling		1	349682	08/26/16 08:55	JVB	TAL CHI

Client Sample ID: R32S

Date Collected: 08/26/16 10:54
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	350507	09/03/16 07:36	KML	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	349806	08/29/16 17:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	350030	08/30/16 16:53	FXG	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	350203	08/31/16 16:18	FXG	TAL CHI
Total/NA	Prep	7470A			349662	08/29/16 13:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349874	08/30/16 13:20	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349971	08/30/16 23:52	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	351154	09/09/16 21:22	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349715	08/29/16 17:12	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	351856		CRB	TAL CHI
					(Start)	09/14/16 20:54		
					(End)	09/14/16 20:55		
Total/NA	Analysis	Field Sampling		1	349682	08/26/16 10:54	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 08/26/16 11:54
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	350507	09/03/16 07:40	KML	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	349806	08/29/16 17:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	350030	08/30/16 16:57	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			349588	08/29/16 09:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	350203	08/31/16 16:27	FXG	TAL CHI
Total/NA	Prep	7470A			349662	08/29/16 13:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	349874	08/30/16 13:22	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	349971	08/30/16 23:55	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	351154	09/09/16 21:22	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	349715	08/29/16 17:19	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	351856		CRB	TAL CHI
					(Start)	09/14/16 20:55		
					(End)	09/14/16 20:57		
Total/NA	Analysis	Field Sampling		1	349682	08/26/16 11:54	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/23/16 Start Purge: 0925 (2400 Hr. Clock) End Purge: 0945

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 61.32 (ft.)
Ground Water Elev. 518.01 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.43	7.41	7.41	(std.)
SC	638	638	638	(umhos/cm)
Temp.	21.56	21.80	21.80	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 75° F, Sunny, S winds 5-10 mph
Other: *Reference Measurement
Depth To Water from L.S. = 61.32 - 2.78 = 58.54 (ft.)
Levels were taken on 07/08/16 @ 0921.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/24/16 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0935

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 104.77 (ft.)
Ground Water Elev. 516.00 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.32	9.31	9.31	(std.)
SC	1,660	1,660	1,660	(umhos/cm)
Temp.	16.15	16.38	16.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 72°F, Rain, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 104.77 - 2.45 = 102.32 (ft.)
Levels were taken on 07/08/16 @ 1057.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S Dup
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/24/16 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0935

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.45 (ft)

Ref. Measuring Pt. TIC

Well Elevation *620.77 (ft./msl)

Water Level 104.77 (ft.)

Ground Water Elev. 516.00 (ft./msl)

Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.32	9.31	9.31	(std.)
SC	1660	1660	1660	(umhos/cm)
Temp.	16.15	16.38	16.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor

Weather Conditions: 72°F, Rain, SW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 104.77 - 2.45 = 102.32 (ft.)

Levels were taken on 07/08/16 @ 1057.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111075-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/24/16 Start Purge: 1320 (2400 Hr. Clock) End Purge: 1340

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 96.79 (ft.)
Ground Water Elev. 515.53 (ft./msl) 08/29/16 VB
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.13	9.19	9.19	(std.)
SC	1217	1232	1232	(umhos/cm)
Temp.	18.49	18.62	18.62	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 78°F, Cloudy, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 96.79 - 2.50 = 94.29 (Ft.)
Levels were taken on 07/08/16 @ 1110

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-5

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/25/16 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0923

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.58

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.65 (ft./msl)

Water Level 134.13 (ft.)

Ground Water Elev. 495.52 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.31	7.32	7.32	(std.)
SC	1141	1154	1154	(umhos/cm)
Temp.	15.04	15.31	15.31	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 74°F, Cloudy, SW wind 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 134.13 - 3.08 = 131.05 (ft)

Levels were taken on 07/08/16 @ 1022

* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/25/16 Start Purge: 1040 (2400 Hr. Clock) End Purge: 1056

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.21

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 2.45 (ft.)
Ground Water Elev. 521.95 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.73	7.70	7.70	(std.)
SC	1560	1550	1,550	(umhos/cm)
Temp.	17.02	17.36	17.36	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 76°F, Cloudy, W winds @ 5-10 mph
Other: *Reference Measurement
Depth To Water from L.S. = 2.45 - 2.31 = 0.14 (ft.)
Levels were taken on 07/08/16 @ 0857

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/25/16 Start Purge: 1330 (2400 Hr. Clock) End Purge: 1344

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 68.39 (ft.)
Ground Water Elev. 534.92 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.28	7.28	7.28	(std.)
SC	976	977	977	(umhos/cm)
Temp.	16.93	16.96	16.96	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 81°F, Partly Cloudy, SW winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 68.39 - 2.97 = 65.42 (ft.)
Levels were taken on 07/05/16 @ 0930.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/25/16 Start Purge: 1440 (2400 Hr. Clock) End Purge: 1457

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.10

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 67.47 (ft.)
Ground Water Elev. 571.18 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.53	7.54	7.54	(std.)
SC	1036	1038	1038	(umhos/cm)
Temp.	15.53	15.69	15.69	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 83°F, Mostly Cloudy, SW winds 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 67.47 - 2.55 = 64.92 (ft.)
Levels were taken on 07/05/16 @ 1236

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/26/16 Start Purge: 0835 (2400 Hr. Clock) End Purge: 0855

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 97.32 (ft.)

Ground Water Elev. 504.00 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.48	7.48	7.48	(std.)
SC	1,345	1,350	1,350	(umhos/cm)
Temp.	17.58	17.89	17.89	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 74°F, Partly Cloudy, NE winds 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 97.32 - 2.70 = 94.62 (ft.)

Levels were taken on 07/08/16 @ 1134.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-111075-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/26/16 Start Purge: 1035 (2400 Hr. Clock) End Purge: 1054

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.03 (ft)

Ref. Measuring Pt. TIC

Well Elevation *536.81 (ft./msl)

Water Level 20.51 (ft.)

Ground Water Elev. 516.30 (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.26	7.30	7.30	(std.)
SC	767	763	763	(umhos/cm)
Temp.	13.08	13.06	13.06	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 76°F, Partly Cloudy, NE winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 20.51 - 2.03 = 18.48 (ft.)

Levels were taken on 07/05/16 @ 0906.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-116075-11

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 08/26/16 Start Purge: 1140 (2400 Hr. Clock) End Purge: 1154

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.65 (ft.)
Ground Water Elev. 506.04 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.14	7.12	7.12	(std.)
SC	924	923	923	(umhos/cm)
Temp.	17.18	17.40	17.40	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 80°F, Mostly Cloudy, NE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.65 - 2.18 = 78.47 (ft.)
Levels were taken on 07/08/16 @ 1252.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-116075-2
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
9/29/2016 12:57:29 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at:
www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-116075-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-116075-2

Comments
No additional comments.

Receipt
The samples were received on 8/23/2016 3:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 6 coolers at receipt time were 2.8º C, 3.3º C, 3.5º C, 3.9º C, 4.6º C and 5.1º C.

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-267813:
The following samples encountered an unknown problem during the into in-growth process: G48S (500-116075-2), G48S DUP (500-116075-3), G47S (500-116075-4), T03S (500-116075-5), G30S (500-116075-6), G45S (500-116075-7), R08S (500-116075-8), G46S (500-116075-9), R32S (500-116075-10), G44S (500-116075-11) and (500-116075-D-5 DU). The samples did not precipitate any barium sulfate after being dissolved in EDTA. The samples were re-precipitated 09/06/2016.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-267813:
The following samples were prepared at a reduced aliquot due to limited volume from re-analysis (see NCM 92724): T03S (500-116075-5), G30S (500-116075-6) and (500-116075-D-5 DU).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-267808:
The following samples encountered an unknown problem during the into in-growth process:G48S (500-116075-2), G48S DUP (500-116075-3), G47S (500-116075-4), T03S (500-116075-5), G30S (500-116075-6), G45S (500-116075-7), R08S (500-116075-8), G46S (500-116075-9), R32S (500-116075-10), G44S (500-116075-11) and (500-116075-D-5 DU). The samples did not precipitate any barium sulfate after being dissolved in EDTA. The samples were re-precipitated 09/06/2016.

Method(s) PrecSep-21: Radium-226 Prep Batch 160-267808:
The following samples were prepared at a reduced volume due to limited sample left after reanalysis (see NCM 92723): T03S (500-116075-5), G30S (500-116075-6) and (500-116075-D-5 DU). This is a minor reduction in aliquot that will not affect ability to hit client requested limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-116075-1	G20S	Water	08/23/16 09:45	08/23/16 15:30
500-116075-2	G48S	Water	08/24/16 09:35	08/24/16 15:35
500-116075-3	G48S DUP	GW	08/24/16 09:35	08/24/16 15:35
500-116075-4	G47S	Water	08/24/16 13:40	08/24/16 15:35
500-116075-5	T03S	GW	08/25/16 09:23	08/26/16 08:00
500-116075-6	G30S	GW	08/25/16 10:56	08/26/16 08:00
500-116075-7	G45S	GW	08/25/16 13:44	08/26/16 08:00
500-116075-8	R08S	GW	08/25/16 14:57	08/26/16 08:00
500-116075-9	G46S	Water	08/26/16 08:55	08/26/16 13:35
500-116075-10	R32S	Water	08/26/16 10:54	08/26/16 13:35
500-116075-11	G44S	Water	08/26/16 11:54	08/26/16 13:35

Client Sample ID: G20S

Date Collected: 08/23/16 09:45
Date Received: 08/23/16 15:30

Lab Sample ID: 500-116075-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.82		0.212	0.268	1.00	0.0968	pCi/L	08/25/16 19:33	09/16/16 07:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.5*		*40 - 110*	*08/25/16 19:33*	*09/16/16 07:40*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.85		0.453	0.484	1.00	0.552	pCi/L	08/25/16 20:27	09/10/16 16:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.5*		*40 - 110*	*08/25/16 20:27*	*09/10/16 16:43*	*1*
Y Carrier	*89.3*		*40 - 110*	*08/25/16 20:27*	*09/10/16 16:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.67		0.500	0.553	5.00	0.552	pCi/L		09/29/16 02:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: G48S
Date Collected: 08/24/16 09:35
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-2
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.729		0.122	0.138	1.00	0.0818	pCi/L	09/01/16 17:19	09/28/16 07:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.4*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:12*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.432		0.277	0.280	1.00	0.427	pCi/L	09/01/16 19:18	09/20/16 13:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.4*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:37*	*1*
Y Carrier	*88.2*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:37*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.16		0.302	0.312	5.00	0.427	pCi/L		09/29/16 02:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: G48S DUP
Date Collected: 08/24/16 09:35
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-3
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.757**		0.128	0.145	1.00	0.0994	pCi/L	09/01/16 17:19	09/28/16 07:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:13*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.211	U	0.234	0.235	1.00	0.384	pCi/L	09/01/16 19:18	09/20/16 13:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.7*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:37*	*1*
Y Carrier	*89.3*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:37*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.968**		0.267	0.276	5.00	0.384	pCi/L		09/29/16 02:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: G47S
Date Collected: 08/24/16 13:40
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-4
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.778**		0.133	0.151	1.00	0.112	pCi/L	09/01/16 17:19	09/28/16 07:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:13*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.279	U	0.242	0.244	1.00	0.386	pCi/L	09/01/16 19:18	09/20/16 13:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.6*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:37*	*1*
Y Carrier	*83.4*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:37*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.06**		0.277	0.286	5.00	0.386	pCi/L		09/29/16 02:05	1

Client Sample ID: T03S

Date Collected: 08/25/16 09:23
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-5

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.926		0.158	0.179	1.00	0.0996	pCi/L	09/01/16 17:19	09/28/16 07:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:13*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.618		0.362	0.366	1.00	0.543	pCi/L	09/01/16 19:18	09/20/16 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*
Y Carrier	*84.5*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.54		0.395	0.407	5.00	0.543	pCi/L		09/29/16 02:05	1

Client Sample ID: G30S

Date Collected: 08/25/16 10:56
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-6

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.859		0.145	0.164	1.00	0.0864	pCi/L	09/01/16 17:19	09/28/16 07:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:13*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.01		0.328	0.341	1.00	0.429	pCi/L	09/01/16 19:18	09/20/16 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*
Y Carrier	*93.1*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.87		0.359	0.379	5.00	0.429	pCi/L		09/29/16 02:05	1

Client Sample ID: G45S

Date Collected: 08/25/16 13:44
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-7

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.33		0.163	0.202	1.00	0.0948	pCi/L	09/01/16 17:19	09/28/16 07:13	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:13*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.577		0.266	0.271	1.00	0.378	pCi/L	09/01/16 19:18	09/20/16 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*
Y Carrier	*84.9*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.91		0.312	0.338	5.00	0.378	pCi/L		09/29/16 02:05	1

Client Sample ID: R08S

Date Collected: 08/25/16 14:57
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-8

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.927		0.131	0.156	1.00	0.0789	pCi/L	09/01/16 17:19	09/28/16 07:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.4*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.574		0.259	0.265	1.00	0.367	pCi/L	09/01/16 19:18	09/20/16 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.4*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*
Y Carrier	*85.6*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.50		0.291	0.307	5.00	0.367	pCi/L		09/29/16 02:05	1

Client Sample ID: G46S

Date Collected: 08/26/16 08:55
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.803**		0.124	0.144	1.00	0.0808	pCi/L	09/01/16 17:19	09/28/16 07:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.367	U	0.251	0.253	1.00	0.387	pCi/L	09/01/16 19:18	09/20/16 13:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*
Y Carrier	*88.2*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.17**		0.280	0.291	5.00	0.387	pCi/L		09/29/16 02:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: R32S
Date Collected: 08/26/16 10:54
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.64		0.170	0.225	1.00	0.0679	pCi/L	09/01/16 17:19	09/28/16 07:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.758		0.276	0.285	1.00	0.369	pCi/L	09/01/16 19:18	09/20/16 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.2*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:39*	*1*
Y Carrier	*84.9*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.39		0.324	0.363	5.00	0.369	pCi/L		09/29/16 02:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: G44S
Date Collected: 08/26/16 11:54
Date Received: 08/26/16 13:35

Lab Sample ID: 500-116075-11
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.482**		0.101	0.109	1.00	0.0813	pCi/L	09/01/16 17:19	09/28/16 07:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.334	U	0.338	0.339	1.00	0.551	pCi/L	09/01/16 19:18	09/20/16 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:39*	*1*
Y Carrier	*86.0*		*40 - 110*	*09/01/16 19:18*	*09/20/16 13:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.816**		0.353	0.357	5.00	0.551	pCi/L		09/29/16 02:05	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 266724

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	PrecSep-21	
MB 160-266724/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-266724/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 266726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-1	G20S	Total/NA	Water	PrecSep_0	
MB 160-266726/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-266726/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 267808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total/NA	Water	PrecSep-21	
500-116075-3	G48S DUP	Total/NA	GW	PrecSep-21	
500-116075-4	G47S	Total/NA	Water	PrecSep-21	
500-116075-5	T03S	Total/NA	GW	PrecSep-21	
500-116075-6	G30S	Total/NA	GW	PrecSep-21	
500-116075-7	G45S	Total/NA	GW	PrecSep-21	
500-116075-8	R08S	Total/NA	GW	PrecSep-21	
500-116075-9	G46S	Total/NA	Water	PrecSep-21	
500-116075-10	R32S	Total/NA	Water	PrecSep-21	
500-116075-11	G44S	Total/NA	Water	PrecSep-21	
MB 160-267808/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-267808/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-116075-5 DU	T03S	Total/NA	GW	PrecSep-21	

Prep Batch: 267813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116075-2	G48S	Total/NA	Water	PrecSep_0	
500-116075-3	G48S DUP	Total/NA	GW	PrecSep_0	
500-116075-4	G47S	Total/NA	Water	PrecSep_0	
500-116075-5	T03S	Total/NA	GW	PrecSep_0	
500-116075-6	G30S	Total/NA	GW	PrecSep_0	
500-116075-7	G45S	Total/NA	GW	PrecSep_0	
500-116075-8	R08S	Total/NA	GW	PrecSep_0	
500-116075-9	G46S	Total/NA	Water	PrecSep_0	
500-116075-10	R32S	Total/NA	Water	PrecSep_0	
500-116075-11	G44S	Total/NA	Water	PrecSep_0	
MB 160-267813/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-267813/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-116075-5 DU	T03S	Total/NA	GW	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-266724/1-A
Matrix: Water
Analysis Batch: 270277

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266724

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06147	U	0.0545	0.0548	1.00	0.0832	pCi/L	08/25/16 19:33	09/16/16 07:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*08/25/16 19:33*	*09/16/16 07:39*	*1*

Lab Sample ID: LCS 160-266724/2-A
Matrix: Water
Analysis Batch: 270277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266724

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	14.95		1.46	1.00	0.0919	pCi/L	134	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*77.5*		*40 - 110*

Lab Sample ID: MB 160-267808/1-A
Matrix: Water
Analysis Batch: 272061

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 267808

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03304	U	0.0454	0.0455	1.00	0.0765	pCi/L	09/01/16 17:19	09/28/16 07:12	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.9*		*40 - 110*	*09/01/16 17:19*	*09/28/16 07:12*	*1*

Lab Sample ID: LCS 160-267808/2-A
Matrix: Water
Analysis Batch: 272061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 267808

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.2	13.27		1.29	1.00	0.0749	pCi/L	119	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.6*		*40 - 110*

Lab Sample ID: 500-116075-5 DU
Matrix: GW
Analysis Batch: 272061

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 267808

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.926			0.7265		0.162	1.00	0.132	pCi/L			0.59	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 500-116075-5 DU
Matrix: GW
Analysis Batch: 272061

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 267808

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	94.3		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-266726/1-A
Matrix: Water
Analysis Batch: 269045

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 266726

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1458	U	0.322	0.322	1.00	0.550	pCi/L	08/25/16 20:27	09/10/16 16:43	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	79.5		40 - 110	08/25/16 20:27	09/10/16 16:43	1
Y Carrier	79.6		40 - 110	08/25/16 20:27	09/10/16 16:43	1

Lab Sample ID: LCS 160-266726/2-A
Matrix: Water
Analysis Batch: 269045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 266726

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.6	18.97		2.05	1.00	0.545	pCi/L	130	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	77.5		40 - 110
Y Carrier	86.7		40 - 110

Lab Sample ID: MB 160-267813/1-A
Matrix: Water
Analysis Batch: 270711

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 267813

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2816	U	0.219	0.220	1.00	0.343	pCi/L	09/01/16 19:18	09/20/16 13:37	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	98.9		40 - 110	09/01/16 19:18	09/20/16 13:37	1
Y Carrier	89.7		40 - 110	09/01/16 19:18	09/20/16 13:37	1

Lab Sample ID: LCS 160-267813/2-A
Matrix: Water
Analysis Batch: 270711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 267813

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.5	15.49		1.66	1.00	0.429	pCi/L	107	56 - 140		

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.6		40 - 110
Y Carrier	92.0		40 - 110

Lab Sample ID: 500-116075-5 DU
Matrix: GW
Analysis Batch: 270711

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 267813

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.618			0.2632	U	0.321	1.00	0.530	pCi/L			0.52	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	94.3		40 - 110
Y Carrier	90.5		40 - 110

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-116075

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 5.1

Client: Midwest Generation - EME LLC
Client Project #:
Project Name: Joliet #9 CCR -
Project Location/State: Westmont, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, F, SO4, TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, F, SO4, TDS	Comments
1		G20S	08/23/16	0945	5	W	1	1	1	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. ool to 4°
4. ool to 4°
5. , Cool to 4°
6. °

500-116075 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	08/23/16	1530	[signature]	TA-WI	08/23/16	15:30
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL 4124 500 (1209)

9/29/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-116075

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 4.6, 3.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Preservative: 3 | 3 | 8
Parameter: Radium 226/228 | Total Metals | Cl, Fl, SO4, TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS	Comments
2		G485	08/24/16	0935	5	W	1	1	1	
3		G485 DUP	08/24/16	0935	5	W	1	1	1	
4		G475	08/24/16	1340	5	W	1	1	1	

500-116075 COC

9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DL	TAL	08/24/16	1535	Neil Sewell	TAL-HK	08/24/16	15:35
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500- 116075
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: (2.8)(3.5)

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
5		T03S	08/25/16	0923	5	W		1	1	1							
6		G30S	08/25/16	1056	5	W		1	1	1							
7		G45S	08/25/16	1344	5	W		1	1	1							
8		R08S	08/25/16	1457	5	W		1	1	1							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DF	TML	08/25/16	1610	[signature]	TA	08/26/16	0800
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier ✓
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

500-116075 COC

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-116075 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-116075

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.3

Client: Midwest Generation
Client Project #: EME LLC
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
9		G465	08/26/16	0855	5	W		—	—	—							
10		R325	08/26/16	1054	5	W		—	—	—							
11		G445	08/26/16	1154	5	W		—	—	—							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TCI	08/26/16	1335	[signature]	TA-CHI	8/26/16	1335
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-116075 Chain of Custody

TestAmerica LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	No: -77190.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.			Job #: 500-116075-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 9/2/2016		
City: Earth City	TAT Requested (days):		
State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: Joliet #9 CCR	Project #: 50011504		
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:		

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-116075-1)	8/23/16	09:45 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by:	Date/Time: 08/23/16 1600	Company TA	Received by:	Date/Time: 8-24-16 0930	Company TAST
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-116075 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	COC No: 500-77265.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.			Job #: 500-116075-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 9/2/2016		
City: Earth City	TAT Requested (days):		
State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: Joliet #9 CCR	Project #: 50011504		
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G48S (500-116075-2)	8/24/16	09:35 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G48S DUP (500-116075-3)	8/24/16	09:35 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-116075-4)	8/24/16	13:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by:	Date/Time: 08/24/16 1600	Company TA	Received by:	Date/Time: 8/25/16 0920	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-116075 Chain of Custody

TestAmerica
LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	o: 7322.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	Page 1 of 1
Company: TestAmerica Laboratories, Inc.		**Analysis Requested**	Job #: 500-116075-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 9/21/2016		**Preservation Codes:**
City: Earth City	TAT Requested (days):		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: Joliet #9 CCR	Project #: 50011504		
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T03S (500-116075-5)	8/25/16	09:23 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G30S (500-116075-6)	8/25/16	10:56 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-116075-7)	8/25/16	13:44 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-116075-8)	8/25/16	14:57 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 08/26/16 1500	Company TA	Received by:		Date/Time: 8.27.16 0845	Company TA STL	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

9/29/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-116075 Chain of Custody

TestAmerica LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Lo: 77322.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.			Job #: 500-116075-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 9/2/2016		
City: Earth City	TAT Requested (days):		
State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: Joliet #9 CCR	Project #: 50011504		
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G46S (500-116075-9)	8/26/16	08:55 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-116075-10)	8/26/16	10:54 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-116075-11)	8/26/16	11:54 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 08/26/16 1500	Company TA	Received by:	Date/Time: 8.27.16 0845	Company TAST		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-116075-2

Login Number: 116075
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.1,3.9,4.6,2.8,3.5,3.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-116075-2

Login Number: 116075
List Number: 2
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 08/24/16 03:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-116075-2

Login Number: 116075
List Number: 3
Creator: Daniels, Brian J

List Source: TestAmerica St. Louis
List Creation: 08/25/16 02:20 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-116075-2

Login Number: 116075
List Number: 4
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 08/27/16 10:31 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0, 20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: G20S
Date Collected: 08/23/16 09:45
Date Received: 08/23/16 15:30

Lab Sample ID: 500-116075-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			266724	08/25/16 19:33	MCJ	TAL SL
Total/NA	Analysis	903.0		1	270277	09/16/16 07:40	RTM	TAL SL
Total/NA	Prep	PrecSep_0			266726	08/25/16 20:27	MCJ	TAL SL
Total/NA	Analysis	904.0		1	269045	09/10/16 16:43	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: G48S
Date Collected: 08/24/16 09:35
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272061	09/28/16 07:12	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: G48S DUP
Date Collected: 08/24/16 09:35
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-3
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272061	09/28/16 07:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: G47S
Date Collected: 08/24/16 13:40
Date Received: 08/24/16 15:35

Lab Sample ID: 500-116075-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272061	09/28/16 07:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:37	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: T03S
Date Collected: 08/25/16 09:23
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-5
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272061	09/28/16 07:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: G30S
Date Collected: 08/25/16 10:56
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-6
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272061	09/28/16 07:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: G45S
Date Collected: 08/25/16 13:44
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-7
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272061	09/28/16 07:13	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: R08S
Date Collected: 08/25/16 14:57
Date Received: 08/26/16 08:00

Lab Sample ID: 500-116075-8
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272254	09/28/16 07:17	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Client Sample ID: G46S

Lab Sample ID: 500-116075-9

Date Collected: 08/26/16 08:55
Matrix: Water
Date Received: 08/26/16 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272254	09/28/16 07:17	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:38	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: R32S

Lab Sample ID: 500-116075-10

Date Collected: 08/26/16 10:54
Matrix: Water
Date Received: 08/26/16 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272254	09/28/16 07:17	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Client Sample ID: G44S

Lab Sample ID: 500-116075-11

Date Collected: 08/26/16 11:54
Matrix: Water
Date Received: 08/26/16 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			267808	09/01/16 17:19	MCJ	TAL SL
Total/NA	Analysis	903.0		1	272254	09/28/16 07:17	RTM	TAL SL
Total/NA	Prep	PrecSep_0			267813	09/01/16 19:18	MCJ	TAL SL
Total/NA	Analysis	904.0		1	270711	09/20/16 13:39	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	272321	09/29/16 02:05	ALS	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-116075-3	G48S DUP	91.7
500-116075-5	T03S	87.2
500-116075-5 DU	T03S	94.3
500-116075-6	G30S	105
500-116075-7	G45S	92.3
500-116075-8	R08S	93.4

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-116075-1	G20S	69.5
500-116075-2	G48S	93.4
500-116075-4	G47S	92.6
500-116075-9	G46S	93.2
500-116075-10	R32S	95.2
500-116075-11	G44S	92.3
LCS 160-266724/2-A	Lab Control Sample	77.5
LCS 160-267808/2-A	Lab Control Sample	94.6
MB 160-266724/1-A	Method Blank	79.5
MB 160-267808/1-A	Method Blank	98.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-116075-3	G48S DUP	91.7	89.3
500-116075-5	T03S	87.2	84.5
500-116075-5 DU	T03S	94.3	90.5
500-116075-6	G30S	105	93.1
500-116075-7	G45S	92.3	84.9
500-116075-8	R08S	93.4	85.6

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-116075-2

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-116075-1	G20S	69.5	89.3
500-116075-2	G48S	93.4	88.2
500-116075-4	G47S	92.6	83.4
500-116075-9	G46S	93.2	88.2
500-116075-10	R32S	95.2	84.9
500-116075-11	G44S	92.3	86.0
LCS 160-266726/2-A	Lab Control Sample	77.5	86.7
LCS 160-267813/2-A	Lab Control Sample	94.6	92.0
MB 160-266726/1-A	Method Blank	79.5	79.6
MB 160-267813/1-A	Method Blank	98.9	89.7

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-120237-1
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
12/1/2016 11:20:22 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-120237-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-120237-1

Comments
No additional comments.

Receipt
The samples were received on 11/16/2016 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 2.5º C, 2.6º C, 2.9º C, 2.9º C and 3.1º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method(s) SM 4500 Cl- E: The matrix spike duplicate (MSD) recovery for analytical batch 500-361890 was outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits at 100%.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120237-1	G48S	Water	11/16/16 09:45	11/16/16 16:50
500-120237-2	G47S	Water	11/16/16 11:10	11/16/16 16:50
500-120237-3	G45S	Water	11/16/16 13:19	11/16/16 16:50
500-120237-4	G44S	Water	11/16/16 14:30	11/16/16 16:50
500-120237-5	DUP	Water	11/16/16 14:30	11/16/16 16:50
500-120237-6	G20S	Water	11/17/16 09:35	11/17/16 16:20
500-120237-7	T03S	Water	11/17/16 14:26	11/17/16 16:20
500-120237-8	G46S	Water	11/18/16 09:25	11/19/16 08:00
500-120237-9	G30S	Water	11/18/16 12:44	11/19/16 08:00
500-120237-10	R32S	Water	11/18/16 14:59	11/19/16 08:00
500-120237-11	R08S	Water	11/21/16 10:10	11/21/16 11:35

Client Sample ID: G48S

Lab Sample ID: 500-120237-1

Date Collected: 11/16/16 09:45

Matrix: Water

Date Received: 11/16/16 16:50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.016**		0.010		mg/L		11/17/16 07:54	11/17/16 19:25	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/17/16 07:54	11/17/16 17:45	1
Arsenic	**0.030**		0.0010		mg/L		11/17/16 07:54	11/17/16 17:45	1
Barium	**0.018**		0.0025		mg/L		11/17/16 07:54	11/17/16 17:45	1
Beryllium	<0.0010		0.0010		mg/L		11/17/16 07:54	11/21/16 19:05	1
Boron	**9.8**		1.0		mg/L		11/17/16 07:54	11/22/16 18:53	20
Cadmium	<0.00050		0.00050		mg/L		11/17/16 07:54	11/17/16 17:45	1
Calcium	**10**		0.20		mg/L		11/17/16 07:54	11/21/16 19:05	1
Chromium	<0.0050		0.0050		mg/L		11/17/16 07:54	11/17/16 17:45	1
Cobalt	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 17:45	1
Lead	<0.00050		0.00050		mg/L		11/17/16 07:54	11/21/16 19:05	1
Molybdenum	**1.1**		0.0050		mg/L		11/17/16 07:54	11/17/16 17:45	1
Selenium	<0.0025		0.0025		mg/L		11/17/16 07:54	11/17/16 17:45	1
Thallium	<0.0020		0.0020		mg/L		11/17/16 07:54	11/21/16 19:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			11/18/16 00:17	1
Chloride	**110**		10		mg/L			11/21/16 00:55	5
Fluoride	**1.4**		0.10		mg/L			11/19/16 16:07	1
Sulfate	**340**		100		mg/L			11/30/16 05:56	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**1620**				umhos/cm			11/16/16 09:45	1
Field Temperature	**52.9**				Degrees F			11/16/16 09:45	1
Ground Water Elevation	**518.36**				ft			11/16/16 09:45	1
Field pH	**9.61**				SU			11/16/16 09:45	1
Well bottom elevation	**468.32**				ft			11/16/16 09:45	1
Depth to water from land surface	**99.96**				ft			11/16/16 09:45	1
Depth to Water (ft from MP)	**102.41**				ft			11/16/16 09:45	1
Elevation of well (ft from MP)	**620.77**				ft			11/16/16 09:45	1

Client Sample ID: G47S

Lab Sample ID: 500-120237-2

Date Collected: 11/16/16 11:10

Matrix: Water

Date Received: 11/16/16 16:50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.015**		0.010		mg/L		11/17/16 07:54	11/17/16 19:30	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/17/16 07:54	11/17/16 17:49	1

Client Sample ID: G47S

Date Collected: 11/16/16 11:10
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-2

Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.14**		0.0010		mg/L		11/17/16 07:54	11/17/16 17:49	1
Barium	**0.0091**		0.0025		mg/L		11/17/16 07:54	11/17/16 17:49	1
Beryllium	<0.0010		0.0010		mg/L		11/17/16 07:54	11/21/16 19:09	1
Boron	**15**		2.5		mg/L		11/17/16 07:54	11/22/16 18:56	50
Cadmium	<0.00050		0.00050		mg/L		11/17/16 07:54	11/17/16 17:49	1
Calcium	**1.3**		0.20		mg/L		11/17/16 07:54	11/21/16 19:09	1
Chromium	<0.0050		0.0050		mg/L		11/17/16 07:54	11/17/16 17:49	1
Cobalt	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 17:49	1
Lead	<0.00050		0.00050		mg/L		11/17/16 07:54	11/21/16 19:09	1
Molybdenum	**1.4**		0.0050		mg/L		11/17/16 07:54	11/17/16 17:49	1
Selenium	**0.0038**		0.0025		mg/L		11/17/16 07:54	11/17/16 17:49	1
Thallium	<0.0020		0.0020		mg/L		11/17/16 07:54	11/21/16 19:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1700**		10		mg/L			11/18/16 00:22	1
Chloride	**150**	**F1**	10		mg/L			11/21/16 00:55	5
Fluoride	**1.8**		0.10		mg/L			11/19/16 16:16	1
Sulfate	**620**		100		mg/L			11/30/16 05:57	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**2190**				umhos/cm			11/16/16 11:10	1
Field Temperature	**59.2**				Degrees F			11/16/16 11:10	1
Ground Water Elevation	**523.36**				ft			11/16/16 11:10	1
Field pH	**10.08**				SU			11/16/16 11:10	1
Well bottom elevation	**459.84**				ft			11/16/16 11:10	1
Depth to water from land surface	**86.46**				ft			11/16/16 11:10	1
Depth to Water (ft from MP)	**88.96**				ft			11/16/16 11:10	1
Elevation of well (ft from MP)	**612.32**				ft			11/16/16 11:10	1

Client Sample ID: G45S

Date Collected: 11/16/16 13:19
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.028**		0.010		mg/L		11/17/16 07:54	11/17/16 19:34	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/17/16 07:54	11/17/16 17:53	1
Arsenic	**0.0079**		0.0010		mg/L		11/17/16 07:54	11/17/16 17:53	1
Barium	**0.033**		0.0025		mg/L		11/17/16 07:54	11/17/16 17:53	1
Beryllium	<0.0010		0.0010		mg/L		11/17/16 07:54	11/21/16 19:13	1
Boron	**0.41**		0.050		mg/L		11/17/16 07:54	11/22/16 19:00	1
Cadmium	<0.00050		0.00050		mg/L		11/17/16 07:54	11/17/16 17:53	1

Client Sample ID: G45S

Date Collected: 11/16/16 13:19
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-3
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	**91**		0.20		mg/L		11/17/16 07:54	11/21/16 19:13	1
Chromium	<0.0050		0.0050		mg/L		11/17/16 07:54	11/17/16 17:53	1
Cobalt	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 17:53	1
Lead	<0.00050		0.00050		mg/L		11/17/16 07:54	11/21/16 19:13	1
Molybdenum	**0.0094**		0.0050		mg/L		11/17/16 07:54	11/17/16 17:53	1
Selenium	<0.0025		0.0025		mg/L		11/17/16 07:54	11/17/16 17:53	1
Thallium	<0.0020		0.0020		mg/L		11/17/16 07:54	11/21/16 19:13	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**620**		10		mg/L			11/18/16 00:26	1
Chloride	**90**		10		mg/L			11/21/16 00:57	5
Fluoride	**0.33**		0.10		mg/L			11/19/16 16:19	1
Sulfate	**170**		50		mg/L			11/30/16 06:00	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**966**				umhos/cm			11/16/16 13:19	1
Field Temperature	**58.8**				Degrees F			11/16/16 13:19	1
Ground Water Elevation	**536.62**				ft			11/16/16 13:19	1
Field pH	**7.34**				SU			11/16/16 13:19	1
Well bottom elevation	**471.05**				ft			11/16/16 13:19	1
Depth to water from land surface	**63.72**				ft			11/16/16 13:19	1
Depth to Water (ft from MP)	**66.69**				ft			11/16/16 13:19	1
Elevation of well (ft from MP)	**603.31**				ft			11/16/16 13:19	1

Client Sample ID: G44S

Date Collected: 11/16/16 14:30
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-4
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.011**		0.010		mg/L		11/17/16 07:54	11/17/16 19:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/17/16 07:54	11/17/16 17:56	1
Arsenic	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 17:56	1
Barium	**0.048**		0.0025		mg/L		11/17/16 07:54	11/17/16 17:56	1
Beryllium	<0.0010		0.0010		mg/L		11/17/16 07:54	11/21/16 19:17	1
Boron	**0.82**		0.25		mg/L		11/17/16 07:54	11/22/16 19:04	5
Cadmium	<0.00050		0.00050		mg/L		11/17/16 07:54	11/17/16 17:56	1
Calcium	**120**		0.20		mg/L		11/17/16 07:54	11/21/16 19:17	1
Chromium	<0.0050		0.0050		mg/L		11/17/16 07:54	11/17/16 17:56	1
Cobalt	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 17:56	1
Lead	<0.00050		0.00050		mg/L		11/17/16 07:54	11/21/16 19:17	1
Molybdenum	**0.041**		0.0050		mg/L		11/17/16 07:54	11/17/16 17:56	1

Client Sample ID: G44S

Lab Sample ID: 500-120237-4

Date Collected: 11/16/16 14:30

Matrix: Water

Date Received: 11/16/16 16:50

Method: 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0025		0.0025		mg/L		11/17/16 07:54	11/17/16 17:56	1
Thallium	<0.0020		0.0020		mg/L		11/17/16 07:54	11/21/16 19:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**530**		10		mg/L			11/18/16 00:30	1
Chloride	**26**		2.0		mg/L			11/21/16 00:22	1
Fluoride	**0.17**		0.10		mg/L			11/19/16 16:21	1
Sulfate	**88**		25		mg/L			11/30/16 06:01	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**885**				umhos/cm			11/16/16 14:30	1
Field Temperature	**59.7**				Degrees F			11/16/16 14:30	1
Ground Water Elevation	**506.00**				ft			11/16/16 14:30	1
Field pH	**7.15**				SU			11/16/16 14:30	1
Well bottom elevation	**455.11**				ft			11/16/16 14:30	1
Depth to water from land surface	**78.51**				ft			11/16/16 14:30	1
Depth to Water (ft from MP)	**80.69**				ft			11/16/16 14:30	1
Elevation of well (ft from MP)	**586.69**				ft			11/16/16 14:30	1

Client Sample ID: DUP

Lab Sample ID: 500-120237-5

Date Collected: 11/16/16 14:30

Matrix: Water

Date Received: 11/16/16 16:50

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.011**		0.010		mg/L		11/17/16 07:54	11/17/16 19:42	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/17/16 07:54	11/17/16 18:00	1
Arsenic	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 18:00	1
Barium	**0.047**		0.0025		mg/L		11/17/16 07:54	11/17/16 18:00	1
Beryllium	<0.0010		0.0010		mg/L		11/17/16 07:54	11/21/16 19:20	1
Boron	**0.82**		0.25		mg/L		11/17/16 07:54	11/22/16 19:08	5
Cadmium	<0.00050		0.00050		mg/L		11/17/16 07:54	11/17/16 18:00	1
Calcium	**120**		0.20		mg/L		11/17/16 07:54	11/21/16 19:20	1
Chromium	<0.0050		0.0050		mg/L		11/17/16 07:54	11/17/16 18:00	1
Cobalt	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 18:00	1
Lead	<0.00050		0.00050		mg/L		11/17/16 07:54	11/21/16 19:20	1
Molybdenum	**0.037**		0.0050		mg/L		11/17/16 07:54	11/17/16 18:00	1
Selenium	<0.0025		0.0025		mg/L		11/17/16 07:54	11/17/16 18:00	1
Thallium	<0.0020		0.0020		mg/L		11/17/16 07:54	11/21/16 19:20	1

Client Sample ID: DUP

Lab Sample ID: 500-120237-5
Date Collected: 11/16/16 14:30
Matrix: Water
Date Received: 11/16/16 16:50

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**560**		10		mg/L			11/18/16 00:35	1
Chloride	**26**		2.0		mg/L			11/21/16 00:22	1
Fluoride	**0.17**		0.10		mg/L			11/19/16 16:32	1
Sulfate	**110**		25		mg/L			11/30/16 06:02	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**885**				umhos/cm			11/16/16 14:30	1
Field Temperature	**59.7**				Degrees F			11/16/16 14:30	1
Ground Water Elevation	**506.00**				ft			11/16/16 14:30	1
Field pH	**7.15**				SU			11/16/16 14:30	1
Well bottom elevation	**455.11**				ft			11/16/16 14:30	1
Depth to water from land surface	**78.51**				ft			11/16/16 14:30	1
Depth to Water (ft from MP)	**80.69**				ft			11/16/16 14:30	1
Elevation of well (ft from MP)	**586.69**				ft			11/16/16 14:30	1

Client Sample ID: G20S

Lab Sample ID: 500-120237-6
Date Collected: 11/17/16 09:35
Matrix: Water
Date Received: 11/17/16 16:20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.042**		0.010		mg/L		11/18/16 08:17	11/18/16 22:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/18/16 08:17	11/21/16 19:43	1
Arsenic	<0.0010		0.0010		mg/L		11/18/16 08:17	11/21/16 19:43	1
Barium	**0.056**		0.0025		mg/L		11/18/16 08:17	11/21/16 19:43	1
Beryllium	<0.0010		0.0010		mg/L		11/18/16 08:17	11/21/16 19:43	1
Boron	**1.3**		0.25		mg/L		11/18/16 08:17	11/22/16 12:16	5
Cadmium	<0.00050		0.00050		mg/L		11/18/16 08:17	11/21/16 19:43	1
Calcium	**59**		0.20		mg/L		11/18/16 08:17	11/21/16 19:43	1
Chromium	<0.0050		0.0050		mg/L		11/18/16 08:17	11/21/16 19:43	1
Cobalt	**0.0018**		0.0010		mg/L		11/18/16 08:17	11/21/16 19:43	1
Lead	<0.00050		0.00050		mg/L		11/18/16 08:17	11/21/16 19:43	1
Molybdenum	**0.019**		0.0050		mg/L		11/18/16 08:17	11/21/16 19:43	1
Selenium	<0.0025		0.0025		mg/L		11/18/16 08:17	11/21/16 19:43	1
Thallium	<0.0020		0.0020		mg/L		11/18/16 08:17	11/21/16 19:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**420**		10		mg/L			11/22/16 02:16	1

Client Sample ID: G20S

Lab Sample ID: 500-120237-6

Date Collected: 11/17/16 09:35

Matrix: Water

Date Received: 11/17/16 16:20

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	11		2.0		mg/L			11/21/16 00:23	1
Fluoride	0.74		0.10		mg/L			11/19/16 16:35	1
Sulfate	55		20		mg/L			11/30/16 06:05	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	659				umhos/cm			11/17/16 09:35	1
Field Temperature	59.7				Degrees F			11/17/16 09:35	1
Ground Water Elevation	525.64				ft			11/17/16 09:35	1
Field pH	7.44				SU			11/17/16 09:35	1
Well bottom elevation	442.28				ft			11/17/16 09:35	1
Depth to water from land surface	51.91				ft			11/17/16 09:35	1
Depth to Water (ft from MP)	54.69				ft			11/17/16 09:35	1
Elevation of well (ft from MP)	580.33				ft			11/17/16 09:35	1

Client Sample ID: T03S

Lab Sample ID: 500-120237-7

Date Collected: 11/17/16 14:26

Matrix: Water

Date Received: 11/17/16 16:20

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.022		0.010		mg/L		11/18/16 08:17	11/18/16 22:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/18/16 08:17	11/21/16 19:47	1
Arsenic	0.0012		0.0010		mg/L		11/18/16 08:17	11/21/16 19:47	1
Barium	0.096		0.0025		mg/L		11/18/16 08:17	11/21/16 19:47	1
Beryllium	<0.0010		0.0010		mg/L		11/18/16 08:17	11/21/16 19:47	1
Boron	1.3		0.25		mg/L		11/18/16 08:17	11/22/16 12:19	5
Cadmium	<0.00050		0.00050		mg/L		11/18/16 08:17	11/21/16 19:47	1
Calcium	120		0.20		mg/L		11/18/16 08:17	11/21/16 19:47	1
Chromium	<0.0050		0.0050		mg/L		11/18/16 08:17	11/21/16 19:47	1
Cobalt	0.0012		0.0010		mg/L		11/18/16 08:17	11/21/16 19:47	1
Lead	<0.00050		0.00050		mg/L		11/18/16 08:17	11/21/16 19:47	1
Molybdenum	0.14		0.0050		mg/L		11/18/16 08:17	11/21/16 19:47	1
Selenium	<0.0025		0.0025		mg/L		11/18/16 08:17	11/21/16 19:47	1
Thallium	<0.0020		0.0020		mg/L		11/18/16 08:17	11/21/16 19:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	860		10		mg/L			11/22/16 02:20	1
Chloride	100		10		mg/L			11/27/16 23:24	5
Fluoride	0.19		0.10		mg/L			11/19/16 16:38	1
Sulfate	150		50		mg/L			11/30/16 06:06	10

Client Sample ID: T03S

Lab Sample ID: 500-120237-7
Date Collected: 11/17/16 14:26
Matrix: Water
Date Received: 11/17/16 16:20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1192				umhos/cm			11/17/16 14:26	1
Field Temperature	59.7				Degrees F			11/17/16 14:26	1
Ground Water Elevation	494.62				ft			11/17/16 14:26	1
Field pH	7.14				SU			11/17/16 14:26	1
Well bottom elevation	456.70				ft			11/17/16 14:26	1
Depth to water from land surface	131.95				ft			11/17/16 14:26	1
Depth to Water (ft from MP)	135.03				ft			11/17/16 14:26	1
Elevation of well (ft from MP)	629.65				ft			11/17/16 14:26	1

Client Sample ID: G46S

Lab Sample ID: 500-120237-8
Date Collected: 11/18/16 09:25
Matrix: Water
Date Received: 11/19/16 08:00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.13		0.010		mg/L		11/21/16 08:54	11/23/16 21:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/21/16 08:54	11/28/16 19:24	1
Arsenic	0.0025		0.0010		mg/L		11/21/16 08:54	11/28/16 19:24	1
Barium	0.051		0.0025		mg/L		11/21/16 08:54	11/28/16 19:24	1
Beryllium	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 19:24	1
Boron	6.5		1.0		mg/L		11/21/16 08:54	11/29/16 13:19	20
Cadmium	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 19:24	1
Calcium	110		0.20		mg/L		11/21/16 08:54	11/28/16 19:24	1
Chromium	<0.0050		0.0050		mg/L		11/21/16 08:54	11/28/16 19:24	1
Cobalt	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 19:24	1
Lead	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 19:24	1
Molybdenum	1.8		0.0050		mg/L		11/21/16 08:54	11/28/16 19:24	1
Selenium	<0.0025		0.0025		mg/L		11/21/16 08:54	11/28/16 19:24	1
Thallium	<0.0020		0.0020		mg/L		11/21/16 08:54	11/28/16 19:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/20/16 16:30	11/21/16 14:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			11/22/16 02:25	1
Chloride	120		10		mg/L			11/27/16 23:25	5
Fluoride	0.39		0.10		mg/L			11/26/16 14:25	1
Sulfate	330		100		mg/L			11/30/16 06:07	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1395				umhos/cm			11/18/16 09:25	1
Field Temperature	58.3				Degrees F			11/18/16 09:25	1
Ground Water Elevation	503.82				ft			11/18/16 09:25	1
Field pH	7.56				SU			11/18/16 09:25	1
Well bottom elevation	453.62				ft			11/18/16 09:25	1

Client Sample ID: G46S

Lab Sample ID: 500-120237-8
Date Collected: 11/18/16 09:25
Matrix: Water
Date Received: 11/19/16 08:00

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	94.80				ft			11/18/16 09:25	1
Depth to Water (ft from MP)	97.50				ft			11/18/16 09:25	1
Elevation of well (ft from MP)	601.32				ft			11/18/16 09:25	1

Client Sample ID: G30S

Lab Sample ID: 500-120237-9
Date Collected: 11/18/16 12:44
Matrix: Water
Date Received: 11/19/16 08:00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.023		0.010		mg/L		11/21/16 08:54	11/23/16 21:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/21/16 08:54	11/28/16 19:27	1
Arsenic	0.016		0.0010		mg/L		11/21/16 08:54	11/28/16 19:27	1
Barium	0.043		0.0025		mg/L		11/21/16 08:54	11/28/16 19:27	1
Beryllium	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 19:27	1
Boron	6.4		1.0		mg/L		11/21/16 08:54	11/29/16 13:23	20
Cadmium	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 19:27	1
Calcium	57		0.20		mg/L		11/21/16 08:54	11/28/16 19:27	1
Chromium	<0.0050		0.0050		mg/L		11/21/16 08:54	11/28/16 19:27	1
Cobalt	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 19:27	1
Lead	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 19:27	1
Molybdenum	0.33		0.0050		mg/L		11/21/16 08:54	11/28/16 19:27	1
Selenium	<0.0025		0.0025		mg/L		11/21/16 08:54	11/28/16 19:27	1
Thallium	<0.0020		0.0020		mg/L		11/21/16 08:54	11/28/16 19:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/20/16 16:30	11/21/16 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			11/22/16 02:29	1
Chloride	170		10		mg/L			11/27/16 23:25	5
Fluoride	1.2		0.10		mg/L			11/26/16 14:34	1
Sulfate	320		100		mg/L			11/30/16 06:08	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1580				umhos/cm			11/18/16 12:44	1
Field Temperature	55.4				Degrees F			11/18/16 12:44	1
Ground Water Elevation	521.83				ft			11/18/16 12:44	1
Field pH	8.04				SU			11/18/16 12:44	1
Well bottom elevation	462.58				ft			11/18/16 12:44	1
Depth to water from land surface	0.26				ft			11/18/16 12:44	1
Depth to Water (ft from MP)	2.57				ft			11/18/16 12:44	1
Elevation of well (ft from MP)	524.40				ft			11/18/16 12:44	1

Client Sample ID: R32S

Lab Sample ID: 500-120237-10

Date Collected: 11/18/16 14:59

Matrix: Water

Date Received: 11/19/16 08:00

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.063**		0.010		mg/L		11/21/16 08:54	11/23/16 21:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/21/16 08:54	11/28/16 19:31	1
Arsenic	**0.0016**		0.0010		mg/L		11/21/16 08:54	11/28/16 19:31	1
Barium	**0.042**		0.0025		mg/L		11/21/16 08:54	11/28/16 19:31	1
Beryllium	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 19:31	1
Boron	**3.3**		0.50		mg/L		11/21/16 08:54	11/29/16 13:27	10
Cadmium	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 19:31	1
Calcium	**120**		0.20		mg/L		11/21/16 08:54	11/28/16 19:31	1
Chromium	<0.0050		0.0050		mg/L		11/21/16 08:54	11/28/16 19:31	1
Cobalt	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 19:31	1
Lead	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 19:31	1
Molybdenum	**0.55**		0.0050		mg/L		11/21/16 08:54	11/28/16 19:31	1
Selenium	<0.0025		0.0025		mg/L		11/21/16 08:54	11/28/16 19:31	1
Thallium	<0.0020		0.0020		mg/L		11/21/16 08:54	11/28/16 19:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/20/16 16:30	11/21/16 14:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**830**		10		mg/L			11/22/16 02:33	1
Chloride	**99**		10		mg/L			11/27/16 23:26	5
Fluoride	**0.34**		0.10		mg/L			11/26/16 14:37	1
Sulfate	**270**		100		mg/L			11/30/16 06:09	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**769**				umhos/cm			11/18/16 14:59	1
Field Temperature	**54.0**				Degrees F			11/18/16 14:59	1
Ground Water Elevation	**516.57**				ft			11/18/16 14:59	1
Field pH	**7.38**				SU			11/18/16 14:59	1
Well bottom elevation	**457.84**				ft			11/18/16 14:59	1
Depth to water from land surface	**18.21**				ft			11/18/16 14:59	1
Depth to Water (ft from MP)	**20.24**				ft			11/18/16 14:59	1
Elevation of well (ft from MP)	**536.81**				ft			11/18/16 14:59	1

Client Sample ID: R08S

Lab Sample ID: 500-120237-11

Date Collected: 11/21/16 10:10

Matrix: Water

Date Received: 11/21/16 11:35

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.14**		0.010		mg/L		11/22/16 09:03	11/23/16 21:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/22/16 09:03	11/28/16 20:58	1

Client Sample ID: R08S
Date Collected: 11/21/16 10:10
Date Received: 11/21/16 11:35

Lab Sample ID: 500-120237-11
Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0016		0.0010		mg/L		11/22/16 09:03	11/28/16 20:58	1
Barium	0.052		0.0025		mg/L		11/22/16 09:03	11/28/16 20:58	1
Beryllium	<0.0010		0.0010		mg/L		11/22/16 09:03	11/28/16 20:58	1
Boron	6.4		1.0		mg/L		11/22/16 09:03	11/29/16 13:39	20
Cadmium	<0.00050		0.00050		mg/L		11/22/16 09:03	11/28/16 20:58	1
Calcium	120		0.20		mg/L		11/22/16 09:03	11/28/16 20:58	1
Chromium	<0.0050		0.0050		mg/L		11/22/16 09:03	11/28/16 20:58	1
Cobalt	<0.0010		0.0010		mg/L		11/22/16 09:03	11/28/16 20:58	1
Lead	<0.00050		0.00050		mg/L		11/22/16 09:03	11/28/16 20:58	1
Molybdenum	0.36		0.0050		mg/L		11/22/16 09:03	11/28/16 20:58	1
Selenium	0.0037		0.0025		mg/L		11/22/16 09:03	11/28/16 20:58	1
Thallium	<0.0020		0.0020		mg/L		11/22/16 09:03	11/28/16 20:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/22/16 12:45	11/23/16 08:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	790		10		mg/L			11/22/16 02:38	1
Chloride	86		10		mg/L			11/27/16 23:26	5
Fluoride	0.17		0.10		mg/L			11/26/16 14:40	1
Sulfate	280		100		mg/L			11/30/16 07:38	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	979				umhos/cm			11/21/16 10:10	1
Field Temperature	53.2				Degrees F			11/21/16 10:10	1
Ground Water Elevation	510.81				ft			11/21/16 10:10	1
Field pH	7.53				SU			11/21/16 10:10	1
Well bottom elevation	453.08				ft			11/21/16 10:10	1
Depth to water from land surface	65.29				ft			11/21/16 10:10	1
Depth to Water (ft from MP)	67.84				ft			11/21/16 10:10	1
Elevation of well (ft from MP)	578.65				ft			11/21/16 10:10	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 361206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total Recoverable	Water	3005A	
500-120237-2	G47S	Total Recoverable	Water	3005A	
500-120237-3	G45S	Total Recoverable	Water	3005A	
500-120237-4	G44S	Total Recoverable	Water	3005A	
500-120237-5	DUP	Total Recoverable	Water	3005A	
MB 500-361206/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-361206/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 361418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total Recoverable	Water	6010C	361206
500-120237-2	G47S	Total Recoverable	Water	6010C	361206
500-120237-3	G45S	Total Recoverable	Water	6010C	361206
500-120237-4	G44S	Total Recoverable	Water	6010C	361206
500-120237-5	DUP	Total Recoverable	Water	6010C	361206
MB 500-361206/1-A	Method Blank	Total Recoverable	Water	6010C	361206
LCS 500-361206/2-A	Lab Control Sample	Total Recoverable	Water	6010C	361206

Prep Batch: 361430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-6	G20S	Total Recoverable	Water	3005A	
500-120237-7	T03S	Total Recoverable	Water	3005A	
MB 500-361430/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-361430/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 361441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total Recoverable	Water	6020A	361206
500-120237-2	G47S	Total Recoverable	Water	6020A	361206
500-120237-3	G45S	Total Recoverable	Water	6020A	361206
500-120237-4	G44S	Total Recoverable	Water	6020A	361206
500-120237-5	DUP	Total Recoverable	Water	6020A	361206
MB 500-361206/1-A	Method Blank	Total Recoverable	Water	6020A	361206
LCS 500-361206/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361206

Prep Batch: 361468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	7470A	
500-120237-2	G47S	Total/NA	Water	7470A	
500-120237-3	G45S	Total/NA	Water	7470A	
500-120237-4	G44S	Total/NA	Water	7470A	
500-120237-5	DUP	Total/NA	Water	7470A	
500-120237-6	G20S	Total/NA	Water	7470A	
500-120237-7	T03S	Total/NA	Water	7470A	
MB 500-361468/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-361468/13-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 361668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total/NA	Water	7470A	
500-120237-9	G30S	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 361668 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-10	R32S	Total/NA	Water	7470A	
MB 500-361668/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-361668/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 361693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	7470A	361468
500-120237-2	G47S	Total/NA	Water	7470A	361468
500-120237-3	G45S	Total/NA	Water	7470A	361468
500-120237-4	G44S	Total/NA	Water	7470A	361468
500-120237-5	DUP	Total/NA	Water	7470A	361468
500-120237-6	G20S	Total/NA	Water	7470A	361468
500-120237-7	T03S	Total/NA	Water	7470A	361468
MB 500-361468/12-A	Method Blank	Total/NA	Water	7470A	361468
LCS 500-361468/13-A	Lab Control Sample	Total/NA	Water	7470A	361468

Analysis Batch: 361714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-6	G20S	Total Recoverable	Water	6010C	361430
500-120237-7	T03S	Total Recoverable	Water	6010C	361430
MB 500-361430/1-A	Method Blank	Total Recoverable	Water	6010C	361430
LCS 500-361430/2-A	Lab Control Sample	Total Recoverable	Water	6010C	361430

Prep Batch: 361760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total Recoverable	Water	3005A	
500-120237-9	G30S	Total Recoverable	Water	3005A	
500-120237-10	R32S	Total Recoverable	Water	3005A	
MB 500-361760/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-361760/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 361865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total/NA	Water	7470A	361668
500-120237-9	G30S	Total/NA	Water	7470A	361668
500-120237-10	R32S	Total/NA	Water	7470A	361668
MB 500-361668/12-A	Method Blank	Total/NA	Water	7470A	361668
LCS 500-361668/13-A	Lab Control Sample	Total/NA	Water	7470A	361668

Analysis Batch: 361941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total Recoverable	Water	6020A	361206
500-120237-2	G47S	Total Recoverable	Water	6020A	361206
500-120237-3	G45S	Total Recoverable	Water	6020A	361206
500-120237-4	G44S	Total Recoverable	Water	6020A	361206
500-120237-5	DUP	Total Recoverable	Water	6020A	361206
500-120237-6	G20S	Total Recoverable	Water	6020A	361430
500-120237-7	T03S	Total Recoverable	Water	6020A	361430
MB 500-361206/1-A	Method Blank	Total Recoverable	Water	6020A	361206
MB 500-361430/1-A	Method Blank	Total Recoverable	Water	6020A	361430
LCS 500-361206/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361206

Metals (Continued)

Analysis Batch: 361941 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-361430/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361430

Prep Batch: 361946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-11	R08S	Total Recoverable	Water	3005A	
MB 500-361946/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-361946/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 361985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-11	R08S	Total/NA	Water	7470A	
MB 500-361985/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-361985/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 362054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-6	G20S	Total Recoverable	Water	6020A	361430
500-120237-7	T03S	Total Recoverable	Water	6020A	361430
MB 500-361430/1-A	Method Blank	Total Recoverable	Water	6020A	361430
LCS 500-361430/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361430

Analysis Batch: 362165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total Recoverable	Water	6020A	361206
500-120237-2	G47S	Total Recoverable	Water	6020A	361206
500-120237-3	G45S	Total Recoverable	Water	6020A	361206
500-120237-4	G44S	Total Recoverable	Water	6020A	361206
500-120237-5	DUP	Total Recoverable	Water	6020A	361206
MB 500-361206/1-A	Method Blank	Total Recoverable	Water	6020A	361206
LCS 500-361206/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361206

Analysis Batch: 362188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-11	R08S	Total/NA	Water	7470A	361985
MB 500-361985/12-A	Method Blank	Total/NA	Water	7470A	361985
LCS 500-361985/13-A	Lab Control Sample	Total/NA	Water	7470A	361985

Analysis Batch: 362283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-11	R08S	Total Recoverable	Water	6010C	361946
MB 500-361946/1-A	Method Blank	Total Recoverable	Water	6010C	361946
LCS 500-361946/2-A	Lab Control Sample	Total Recoverable	Water	6010C	361946

Analysis Batch: 362286

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total Recoverable	Water	6010C	361760
500-120237-9	G30S	Total Recoverable	Water	6010C	361760
500-120237-10	R32S	Total Recoverable	Water	6010C	361760
MB 500-361760/1-A	Method Blank	Total Recoverable	Water	6010C	361760
LCS 500-361760/2-A	Lab Control Sample	Total Recoverable	Water	6010C	361760

Metals (Continued)

Analysis Batch: 362749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total Recoverable	Water	6020A	361760
500-120237-9	G30S	Total Recoverable	Water	6020A	361760
500-120237-10	R32S	Total Recoverable	Water	6020A	361760
500-120237-11	R08S	Total Recoverable	Water	6020A	361946
MB 500-361760/1-A	Method Blank	Total Recoverable	Water	6020A	361760
MB 500-361946/1-A	Method Blank	Total Recoverable	Water	6020A	361946
LCS 500-361760/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361760
LCS 500-361946/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361946

Analysis Batch: 362831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total Recoverable	Water	6020A	361760
500-120237-9	G30S	Total Recoverable	Water	6020A	361760
500-120237-10	R32S	Total Recoverable	Water	6020A	361760
500-120237-11	R08S	Total Recoverable	Water	6020A	361946
MB 500-361760/1-A	Method Blank	Total Recoverable	Water	6020A	361760
MB 500-361946/1-A	Method Blank	Total Recoverable	Water	6020A	361946
LCS 500-361760/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361760
LCS 500-361946/2-A	Lab Control Sample	Total Recoverable	Water	6020A	361946

General Chemistry

Analysis Batch: 361371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	SM 2540C	
500-120237-2	G47S	Total/NA	Water	SM 2540C	
500-120237-3	G45S	Total/NA	Water	SM 2540C	
500-120237-4	G44S	Total/NA	Water	SM 2540C	
500-120237-5	DUP	Total/NA	Water	SM 2540C	
MB 500-361371/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-361371/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 361793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	SM 4500 F C	
500-120237-2	G47S	Total/NA	Water	SM 4500 F C	
500-120237-3	G45S	Total/NA	Water	SM 4500 F C	
500-120237-4	G44S	Total/NA	Water	SM 4500 F C	
500-120237-5	DUP	Total/NA	Water	SM 4500 F C	
500-120237-6	G20S	Total/NA	Water	SM 4500 F C	
500-120237-7	T03S	Total/NA	Water	SM 4500 F C	
MB 500-361793/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-361793/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-120237-1 MS	G48S	Total/NA	Water	SM 4500 F C	
500-120237-1 MSD	G48S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 361890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	SM 4500 Cl- E	
500-120237-2	G47S	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 361890 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-3	G45S	Total/NA	Water	SM 4500 Cl- E	
500-120237-4	G44S	Total/NA	Water	SM 4500 Cl- E	
500-120237-5	DUP	Total/NA	Water	SM 4500 Cl- E	
500-120237-6	G20S	Total/NA	Water	SM 4500 Cl- E	
MB 500-361890/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-361890/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-120237-2 MS	G47S	Total/NA	Water	SM 4500 Cl- E	
500-120237-2 MSD	G47S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 361902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-6	G20S	Total/NA	Water	SM 2540C	
500-120237-7	T03S	Total/NA	Water	SM 2540C	
500-120237-8	G46S	Total/NA	Water	SM 2540C	
500-120237-9	G30S	Total/NA	Water	SM 2540C	
500-120237-10	R32S	Total/NA	Water	SM 2540C	
500-120237-11	R08S	Total/NA	Water	SM 2540C	
MB 500-361902/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-361902/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 362658

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-7	T03S	Total/NA	Water	SM 4500 Cl- E	
500-120237-8	G46S	Total/NA	Water	SM 4500 Cl- E	
500-120237-9	G30S	Total/NA	Water	SM 4500 Cl- E	
500-120237-10	R32S	Total/NA	Water	SM 4500 Cl- E	
500-120237-11	R08S	Total/NA	Water	SM 4500 Cl- E	
MB 500-362658/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-362658/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 362739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total/NA	Water	SM 4500 F C	
500-120237-9	G30S	Total/NA	Water	SM 4500 F C	
500-120237-10	R32S	Total/NA	Water	SM 4500 F C	
500-120237-11	R08S	Total/NA	Water	SM 4500 F C	
MB 500-362739/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-362739/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-120237-8 MS	G46S	Total/NA	Water	SM 4500 F C	
500-120237-8 MSD	G46S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 362916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	SM 4500 SO4 E	
500-120237-2	G47S	Total/NA	Water	SM 4500 SO4 E	
500-120237-3	G45S	Total/NA	Water	SM 4500 SO4 E	
500-120237-4	G44S	Total/NA	Water	SM 4500 SO4 E	
500-120237-5	DUP	Total/NA	Water	SM 4500 SO4 E	
500-120237-6	G20S	Total/NA	Water	SM 4500 SO4 E	
500-120237-7	T03S	Total/NA	Water	SM 4500 SO4 E	
500-120237-8	G46S	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 362916 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-9	G30S	Total/NA	Water	SM 4500 SO4 E	
500-120237-10	R32S	Total/NA	Water	SM 4500 SO4 E	
MB 500-362916/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-362916/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-120237-5 MS	DUP	Total/NA	Water	SM 4500 SO4 E	
500-120237-5 MSD	DUP	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 362919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-11	R08S	Total/NA	Water	SM 4500 SO4 E	
MB 500-362919/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-362919/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 362003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	Field Sampling	
500-120237-2	G47S	Total/NA	Water	Field Sampling	
500-120237-3	G45S	Total/NA	Water	Field Sampling	
500-120237-4	G44S	Total/NA	Water	Field Sampling	
500-120237-5	DUP	Total/NA	Water	Field Sampling	
500-120237-6	G20S	Total/NA	Water	Field Sampling	
500-120237-7	T03S	Total/NA	Water	Field Sampling	
500-120237-8	G46S	Total/NA	Water	Field Sampling	
500-120237-9	G30S	Total/NA	Water	Field Sampling	
500-120237-10	R32S	Total/NA	Water	Field Sampling	
500-120237-11	R08S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-361206/1-A
Matrix: Water
Analysis Batch: 361418

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/17/16 07:54	11/17/16 19:18	1

Lab Sample ID: LCS 500-361206/2-A
Matrix: Water
Analysis Batch: 361418

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.536		mg/L		107	80 - 120

Lab Sample ID: MB 500-361430/1-A
Matrix: Water
Analysis Batch: 361714

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/18/16 08:17	11/18/16 22:24	1

Lab Sample ID: LCS 500-361430/2-A
Matrix: Water
Analysis Batch: 361714

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.507		mg/L		101	80 - 120

Lab Sample ID: MB 500-361760/1-A
Matrix: Water
Analysis Batch: 362286

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/21/16 08:54	11/23/16 21:20	1

Lab Sample ID: LCS 500-361760/2-A
Matrix: Water
Analysis Batch: 362286

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.536		mg/L		107	80 - 120

Lab Sample ID: MB 500-361946/1-A
Matrix: Water
Analysis Batch: 362283

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361946

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/22/16 09:03	11/23/16 19:55	1

Lab Sample ID: LCS 500-361946/2-A
Matrix: Water
Analysis Batch: 362283

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.548		mg/L		110	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-361206/1-A
Matrix: Water
Analysis Batch: 361441

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/17/16 07:54	11/17/16 16:01	1
Arsenic	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 16:01	1
Barium	<0.0025		0.0025		mg/L		11/17/16 07:54	11/17/16 16:01	1
Cadmium	<0.00050		0.00050		mg/L		11/17/16 07:54	11/17/16 16:01	1
Chromium	<0.0050		0.0050		mg/L		11/17/16 07:54	11/17/16 16:01	1
Cobalt	<0.0010		0.0010		mg/L		11/17/16 07:54	11/17/16 16:01	1
Molybdenum	<0.0050		0.0050		mg/L		11/17/16 07:54	11/17/16 16:01	1
Selenium	<0.0025		0.0025		mg/L		11/17/16 07:54	11/17/16 16:01	1

Lab Sample ID: MB 500-361206/1-A
Matrix: Water
Analysis Batch: 361941

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010		0.0010		mg/L		11/17/16 07:54	11/21/16 17:31	1
Calcium	<0.20		0.20		mg/L		11/17/16 07:54	11/21/16 17:31	1
Lead	<0.00050		0.00050		mg/L		11/17/16 07:54	11/21/16 17:31	1
Thallium	<0.0020		0.0020		mg/L		11/17/16 07:54	11/21/16 17:31	1

Lab Sample ID: MB 500-361206/1-A
Matrix: Water
Analysis Batch: 362165

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		11/17/16 07:54	11/22/16 18:45	1

Lab Sample ID: LCS 500-361206/2-A
Matrix: Water
Analysis Batch: 361441

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.537		mg/L		107	80 - 120
Arsenic	0.100	0.100		mg/L		100	80 - 120
Barium	2.00	2.09		mg/L		104	80 - 120
Cadmium	0.0500	0.0546		mg/L		109	80 - 120
Chromium	0.200	0.217		mg/L		108	80 - 120
Cobalt	0.500	0.553		mg/L		111	80 - 120
Molybdenum	1.00	1.07		mg/L		107	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120

Lab Sample ID: LCS 500-361206/2-A
Matrix: Water
Analysis Batch: 361941

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0465		mg/L		93	80 - 120
Calcium	10.0	8.54		mg/L		85	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Thallium	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: LCS 500-361206/2-A
Matrix: Water
Analysis Batch: 362165

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361206

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.05		mg/L		105	80 - 120

Lab Sample ID: MB 500-361430/1-A
Matrix: Water
Analysis Batch: 361941

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/18/16 08:17	11/21/16 19:36	1
Arsenic	<0.0010		0.0010		mg/L		11/18/16 08:17	11/21/16 19:36	1
Barium	<0.0025		0.0025		mg/L		11/18/16 08:17	11/21/16 19:36	1
Beryllium	<0.0010		0.0010		mg/L		11/18/16 08:17	11/21/16 19:36	1
Cadmium	<0.00050		0.00050		mg/L		11/18/16 08:17	11/21/16 19:36	1
Calcium	<0.20		0.20		mg/L		11/18/16 08:17	11/21/16 19:36	1
Chromium	<0.0050		0.0050		mg/L		11/18/16 08:17	11/21/16 19:36	1
Cobalt	<0.0010		0.0010		mg/L		11/18/16 08:17	11/21/16 19:36	1
Lead	<0.00050		0.00050		mg/L		11/18/16 08:17	11/21/16 19:36	1
Molybdenum	<0.0050		0.0050		mg/L		11/18/16 08:17	11/21/16 19:36	1
Selenium	<0.0025		0.0025		mg/L		11/18/16 08:17	11/21/16 19:36	1
Thallium	<0.0020		0.0020		mg/L		11/18/16 08:17	11/21/16 19:36	1

Lab Sample ID: MB 500-361430/1-A
Matrix: Water
Analysis Batch: 362054

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361430

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		11/18/16 08:17	11/22/16 12:08	1

Lab Sample ID: LCS 500-361430/2-A
Matrix: Water
Analysis Batch: 361941

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.507		mg/L		101	80 - 120
Arsenic	0.100	0.0962		mg/L		96	80 - 120
Barium	2.00	2.02		mg/L		101	80 - 120
Beryllium	0.0500	0.0491		mg/L		98	80 - 120
Cadmium	0.0500	0.0504		mg/L		101	80 - 120
Calcium	10.0	8.49		mg/L		85	80 - 120
Chromium	0.200	0.201		mg/L		100	80 - 120
Cobalt	0.500	0.501		mg/L		100	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.972		mg/L		97	80 - 120
Selenium	0.100	0.0962		mg/L		96	80 - 120
Thallium	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: LCS 500-361430/2-A
Matrix: Water
Analysis Batch: 362054

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.938		mg/L		94	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-361760/1-A
Matrix: Water
Analysis Batch: 362749

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/21/16 08:54	11/28/16 17:38	1
Arsenic	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 17:38	1
Barium	<0.0025		0.0025		mg/L		11/21/16 08:54	11/28/16 17:38	1
Beryllium	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 17:38	1
Cadmium	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 17:38	1
Calcium	<0.20		0.20		mg/L		11/21/16 08:54	11/28/16 17:38	1
Chromium	<0.0050		0.0050		mg/L		11/21/16 08:54	11/28/16 17:38	1
Cobalt	<0.0010		0.0010		mg/L		11/21/16 08:54	11/28/16 17:38	1
Lead	<0.00050		0.00050		mg/L		11/21/16 08:54	11/28/16 17:38	1
Molybdenum	<0.0050		0.0050		mg/L		11/21/16 08:54	11/28/16 17:38	1
Selenium	<0.0025		0.0025		mg/L		11/21/16 08:54	11/28/16 17:38	1
Thallium	<0.0020		0.0020		mg/L		11/21/16 08:54	11/28/16 17:38	1

Lab Sample ID: MB 500-361760/1-A
Matrix: Water
Analysis Batch: 362831

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		11/21/16 08:54	11/29/16 12:42	1

Lab Sample ID: LCS 500-361760/2-A
Matrix: Water
Analysis Batch: 362749

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.511		mg/L		102	80 - 120
Arsenic	0.100	0.106		mg/L		106	80 - 120
Barium	2.00	2.00		mg/L		100	80 - 120
Beryllium	0.0500	0.0513		mg/L		103	80 - 120
Cadmium	0.0500	0.0525		mg/L		105	80 - 120
Calcium	10.0	8.52		mg/L		85	80 - 120
Chromium	0.200	0.210		mg/L		105	80 - 120
Cobalt	0.500	0.532		mg/L		106	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120
Thallium	0.100	0.110		mg/L		110	80 - 120

Lab Sample ID: LCS 500-361760/2-A
Matrix: Water
Analysis Batch: 362831

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.12		mg/L		112	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-361946/1-A
Matrix: Water
Analysis Batch: 362749

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361946

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/22/16 09:03	11/28/16 19:46	1
Arsenic	<0.0010		0.0010		mg/L		11/22/16 09:03	11/28/16 19:46	1
Barium	<0.0025		0.0025		mg/L		11/22/16 09:03	11/28/16 19:46	1
Beryllium	<0.0010		0.0010		mg/L		11/22/16 09:03	11/28/16 19:46	1
Cadmium	<0.00050		0.00050		mg/L		11/22/16 09:03	11/28/16 19:46	1
Calcium	<0.20		0.20		mg/L		11/22/16 09:03	11/28/16 19:46	1
Chromium	<0.0050		0.0050		mg/L		11/22/16 09:03	11/28/16 19:46	1
Cobalt	<0.0010		0.0010		mg/L		11/22/16 09:03	11/28/16 19:46	1
Lead	<0.00050		0.00050		mg/L		11/22/16 09:03	11/28/16 19:46	1
Molybdenum	<0.0050		0.0050		mg/L		11/22/16 09:03	11/28/16 19:46	1
Selenium	<0.0025		0.0025		mg/L		11/22/16 09:03	11/28/16 19:46	1
Thallium	<0.0020		0.0020		mg/L		11/22/16 09:03	11/28/16 19:46	1

Lab Sample ID: MB 500-361946/1-A
Matrix: Water
Analysis Batch: 362831

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 361946

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		11/22/16 09:03	11/29/16 13:31	1

Lab Sample ID: LCS 500-361946/2-A
Matrix: Water
Analysis Batch: 362749

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.496		mg/L		99	80 - 120
Arsenic	0.100	0.103		mg/L		103	80 - 120
Barium	2.00	1.93		mg/L		97	80 - 120
Beryllium	0.0500	0.0483		mg/L		97	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	10.0	8.44		mg/L		84	80 - 120
Chromium	0.200	0.201		mg/L		101	80 - 120
Cobalt	0.500	0.510		mg/L		102	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Molybdenum	1.00	0.969		mg/L		97	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: LCS 500-361946/2-A
Matrix: Water
Analysis Batch: 362831

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 361946

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.06		mg/L		106	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-361468/12-A
Matrix: Water
Analysis Batch: 361693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/18/16 11:00	11/20/16 12:36	1

Lab Sample ID: LCS 500-361468/13-A
Matrix: Water
Analysis Batch: 361693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00207		mg/L		104	80 - 120

Lab Sample ID: MB 500-361668/12-A
Matrix: Water
Analysis Batch: 361865

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361668

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/20/16 16:30	11/21/16 14:15	1

Lab Sample ID: LCS 500-361668/13-A
Matrix: Water
Analysis Batch: 361865

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361668

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00227		mg/L		113	80 - 120

Lab Sample ID: MB 500-361985/12-A
Matrix: Water
Analysis Batch: 362188

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 361985

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/22/16 12:45	11/23/16 08:07	1

Lab Sample ID: LCS 500-361985/13-A
Matrix: Water
Analysis Batch: 362188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 361985

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00209		mg/L		105	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-361371/1
Matrix: Water
Analysis Batch: 361371

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/17/16 23:07	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-361371/2
Matrix: Water
Analysis Batch: 361371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	258		mg/L		103	80 - 120

Lab Sample ID: MB 500-361902/1
Matrix: Water
Analysis Batch: 361902

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			11/22/16 01:07	1

Lab Sample ID: LCS 500-361902/2
Matrix: Water
Analysis Batch: 361902

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	294		mg/L		118	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-361890/4
Matrix: Water
Analysis Batch: 361890

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			11/21/16 00:00	1

Lab Sample ID: LCS 500-361890/5
Matrix: Water
Analysis Batch: 361890

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	49.8		mg/L		100	80 - 120

Lab Sample ID: 500-120237-2 MS
Matrix: Water
Analysis Batch: 361890

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	150	F1	50.0	196		mg/L		88	75 - 125

Lab Sample ID: 500-120237-2 MSD
Matrix: Water
Analysis Batch: 361890

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	150	F1	50.0	188	F1	mg/L		73	75 - 125	4	20

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MB 500-362658/4
Matrix: Water
Analysis Batch: 362658

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			11/27/16 22:40	1

Lab Sample ID: LCS 500-362658/5
Matrix: Water
Analysis Batch: 362658

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	50.5		mg/L		101	80 - 120		

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-361793/3
Matrix: Water
Analysis Batch: 361793

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/19/16 15:54	1

Lab Sample ID: LCS 500-361793/4
Matrix: Water
Analysis Batch: 361793

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			10.0	9.98		mg/L		100	80 - 120		

Lab Sample ID: 500-120237-1 MS
Matrix: Water
Analysis Batch: 361793

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	1.4		5.00	6.37		mg/L		100	75 - 125		

Lab Sample ID: 500-120237-1 MSD
Matrix: Water
Analysis Batch: 361793

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.4		5.00	6.40		mg/L		101	75 - 125	0	20

Lab Sample ID: MB 500-362739/3
Matrix: Water
Analysis Batch: 362739

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			11/26/16 14:20	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-362739/4
Matrix: Water
Analysis Batch: 362739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			10.0	10.2		mg/L		102	80 - 120		

Lab Sample ID: 500-120237-8 MS
Matrix: Water
Analysis Batch: 362739

Client Sample ID: G46S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.39		5.00	5.36		mg/L		99	75 - 125		

Lab Sample ID: 500-120237-8 MSD
Matrix: Water
Analysis Batch: 362739

Client Sample ID: G46S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.39		5.00	5.36		mg/L		99	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-362916/3
Matrix: Water
Analysis Batch: 362916

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			11/30/16 05:49	1

Lab Sample ID: LCS 500-362916/4
Matrix: Water
Analysis Batch: 362916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	19.4		mg/L		97	80 - 120		

Lab Sample ID: 500-120237-5 MS
Matrix: Water
Analysis Batch: 362916

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	110		200	280		mg/L		86	75 - 125		

Lab Sample ID: 500-120237-5 MSD
Matrix: Water
Analysis Batch: 362916

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	110		200	282		mg/L		87	75 - 125	1	20

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MB 500-362919/3
Matrix: Water
Analysis Batch: 362919

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			11/30/16 07:36	1

Lab Sample ID: LCS 500-362919/4
Matrix: Water
Analysis Batch: 362919

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	20.3		mg/L		102	80 - 120		

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5

500-120237 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.6, 3.1

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
1		G485	11/16/16	0945	5	W		✓	✓	✓						
2		G475	11/16/16	1110	5	W		✓	✓	✓						
3		G455	11/16/16	1319	5	W		✓	✓	✓						
4		G445	11/16/16	1430	5	W		✓	✓	✓						
5		~~MW~~G445 DUP	11/16/16	1430	5	W		✓	✓	✓						Dup of G445

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
SY	TAL	11/16/16	1650	Thomas Scott	TA-CHI	11/17/16	0705
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - CW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS						
6		G205	11/17/16	0935	4	W		1	1	1						Minimum vol.
7		T035	11/17/16	1426	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°

500-120237 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	11/17/16	1620	[signature]	TALHE	11/17/16	1620
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA Field Crew
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.6

Client: Midwest Generation EmE LLC
Client Project #:
Project Name: Joliet #9 CCR - GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
8		G46 S	11/18/16	0925	5	W		1	1	1							
9		G30 S	11/18/16	1244	5	W		1	1	1							
10		R32 S	11/18/16	1459	5	W		-	-	-							

Pr
1. HCL
2. H2S
3. HNC
4. NaC 500-120237 COC
5. NaC
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	11/18/16	1620	[signature]	TALH	11/19/16	0800
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA Sampler
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

12/1/2016

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-120237 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.9

Client: Midwest Generation EME LLC
Project Name: Joliet #9 CCR - GW
Project Location/State: Joliet, IL.
Sampler: Noe L., Andrew N.
Client Project #:
Lab Project #:
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
1		ROFS	11/21/16	1010	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TMC	11/21/16	1135	[signature]	TA-CHT	11/21/16	1135
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-120237-1

Login Number: 120237
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,3.1,2.9,2.5,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client Sample ID: G48S

Lab Sample ID: 500-120237-1

Date Collected: 11/16/16 09:45

Matrix: Water

Date Received: 11/16/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	361418	11/17/16 19:25	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361441	11/17/16 17:45	PFK	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361941	11/21/16 19:05	FXG	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	362165	11/22/16 18:53	FXG	TAL CHI
Total/NA	Prep	7470A			361468	11/18/16 11:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361693	11/20/16 12:43	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361371	11/18/16 00:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	361890	11/21/16 00:55	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	361793	11/19/16 16:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	362916		CLB	TAL CHI
					(Start)	11/30/16 05:56		
					(End)	11/30/16 05:57		
Total/NA	Analysis	Field Sampling		1	362003	11/16/16 09:45	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-120237-2

Date Collected: 11/16/16 11:10

Matrix: Water

Date Received: 11/16/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	361418	11/17/16 19:30	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361441	11/17/16 17:49	PFK	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361941	11/21/16 19:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		50	362165	11/22/16 18:56	FXG	TAL CHI
Total/NA	Prep	7470A			361468	11/18/16 11:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361693	11/20/16 12:44	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361371	11/18/16 00:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	361890	11/21/16 00:55	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	361793	11/19/16 16:16	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	362916		CLB	TAL CHI
					(Start)	11/30/16 05:57		
					(End)	11/30/16 05:58		
Total/NA	Analysis	Field Sampling		1	362003	11/16/16 11:10	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-120237-3

Date Collected: 11/16/16 13:19

Matrix: Water

Date Received: 11/16/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	361418	11/17/16 19:34	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361441	11/17/16 17:53	PFK	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361941	11/21/16 19:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	362165	11/22/16 19:00	FXG	TAL CHI
Total/NA	Prep	7470A			361468	11/18/16 11:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361693	11/20/16 12:46	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361371	11/18/16 00:26	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	361890	11/21/16 00:57	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	361793	11/19/16 16:19	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	362916		CLB	TAL CHI
					(Start)	11/30/16 06:00		
					(End)	11/30/16 06:01		
Total/NA	Analysis	Field Sampling		1	362003	11/16/16 13:19	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-120237-4

Date Collected: 11/16/16 14:30

Matrix: Water

Date Received: 11/16/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	361418	11/17/16 19:38	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361441	11/17/16 17:56	PFK	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361941	11/21/16 19:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	362165	11/22/16 19:04	FXG	TAL CHI
Total/NA	Prep	7470A			361468	11/18/16 11:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361693	11/20/16 12:47	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361371	11/18/16 00:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	361890	11/21/16 00:22	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	361793	11/19/16 16:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	362916		CLB	TAL CHI
					(Start)	11/30/16 06:01		
					(End)	11/30/16 06:02		
Total/NA	Analysis	Field Sampling		1	362003	11/16/16 14:30	JVB	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-120237-5

Date Collected: 11/16/16 14:30

Matrix: Water

Date Received: 11/16/16 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	361418	11/17/16 19:42	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361441	11/17/16 18:00	PFK	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361941	11/21/16 19:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			361206	11/17/16 07:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	362165	11/22/16 19:08	FXG	TAL CHI
Total/NA	Prep	7470A			361468	11/18/16 11:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361693	11/20/16 12:49	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361371	11/18/16 00:35	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	361890	11/21/16 00:22	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	361793	11/19/16 16:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	362916		CLB	TAL CHI
					(Start)	11/30/16 06:02		
					(End)	11/30/16 06:03		
Total/NA	Analysis	Field Sampling		1	362003	11/16/16 14:30	JVB	TAL CHI

Client Sample ID: G20S

Lab Sample ID: 500-120237-6

Date Collected: 11/17/16 09:35

Matrix: Water

Date Received: 11/17/16 16:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361430	11/18/16 08:17	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	361714	11/18/16 22:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361430	11/18/16 08:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361941	11/21/16 19:43	FXG	TAL CHI
Total Recoverable	Prep	3005A			361430	11/18/16 08:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	362054	11/22/16 12:16	FXG	TAL CHI
Total/NA	Prep	7470A			361468	11/18/16 11:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361693	11/20/16 12:50	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361902	11/22/16 02:16	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	361890	11/21/16 00:23	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	361793	11/19/16 16:35	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	362916		CLB	TAL CHI
					(Start)	11/30/16 06:05		
					(End)	11/30/16 06:06		
Total/NA	Analysis	Field Sampling		1	362003	11/17/16 09:35	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-1

Client Sample ID: T03S

Lab Sample ID: 500-120237-7

Date Collected: 11/17/16 14:26
Date Received: 11/17/16 16:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361430	11/18/16 08:17	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	361714	11/18/16 22:37	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361430	11/18/16 08:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	361941	11/21/16 19:47	FXG	TAL CHI
Total Recoverable	Prep	3005A			361430	11/18/16 08:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	362054	11/22/16 12:19	FXG	TAL CHI
Total/NA	Prep	7470A			361468	11/18/16 11:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361693	11/20/16 12:51	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361902	11/22/16 02:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	362658	11/27/16 23:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	361793	11/19/16 16:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	362916		CLB	TAL CHI
					(Start)	11/30/16 06:06		
					(End)	11/30/16 06:07		
Total/NA	Analysis	Field Sampling		1	362003	11/17/16 14:26	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-120237-8

Date Collected: 11/18/16 09:25
Date Received: 11/19/16 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	362286	11/23/16 21:29	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	362749	11/28/16 19:24	FXG	TAL CHI
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	362831	11/29/16 13:19	FXG	TAL CHI
Total/NA	Prep	7470A			361668	11/20/16 16:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361865	11/21/16 14:36	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361902	11/22/16 02:25	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	362658	11/27/16 23:25	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	362739	11/26/16 14:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	362916		CLB	TAL CHI
					(Start)	11/30/16 06:07		
					(End)	11/30/16 06:08		
Total/NA	Analysis	Field Sampling		1	362003	11/18/16 09:25	JVB	TAL CHI

Client Sample ID: G30S

Lab Sample ID: 500-120237-9

Date Collected: 11/18/16 12:44
Date Received: 11/19/16 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-1

Client Sample ID: G30S

Lab Sample ID: 500-120237-9

Date Collected: 11/18/16 12:44
Date Received: 11/19/16 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6010C		1	362286	11/23/16 21:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	362749	11/28/16 19:27	FXG	TAL CHI
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	362831	11/29/16 13:23	FXG	TAL CHI
Total/NA	Prep	7470A			361668	11/20/16 16:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361865	11/21/16 14:37	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361902	11/22/16 02:29	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	362658	11/27/16 23:25	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	362739	11/26/16 14:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	362916		CLB	TAL CHI
					(Start)	11/30/16 06:08		
					(End)	11/30/16 06:09		
Total/NA	Analysis	Field Sampling		1	362003	11/18/16 12:44	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-120237-10

Date Collected: 11/18/16 14:59
Date Received: 11/19/16 08:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	362286	11/23/16 21:37	PJ1	TAL CHI
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	362749	11/28/16 19:31	FXG	TAL CHI
Total Recoverable	Prep	3005A			361760	11/21/16 08:54	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	362831	11/29/16 13:27	FXG	TAL CHI
Total/NA	Prep	7470A			361668	11/20/16 16:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	361865	11/21/16 14:38	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361902	11/22/16 02:33	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	362658	11/27/16 23:26	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	362739	11/26/16 14:37	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	362916		CLB	TAL CHI
					(Start)	11/30/16 06:09		
					(End)	11/30/16 06:10		
Total/NA	Analysis	Field Sampling		1	362003	11/18/16 14:59	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-120237-11

Date Collected: 11/21/16 10:10
Date Received: 11/21/16 11:35

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361946	11/22/16 09:03	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	362283	11/23/16 21:16	PJ1	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			361946	11/22/16 09:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	362749	11/28/16 20:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			361946	11/22/16 09:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	362831	11/29/16 13:39	FXG	TAL CHI
Total/NA	Prep	7470A			361985	11/22/16 12:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	362188	11/23/16 08:27	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	361902	11/22/16 02:38	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	362658	11/27/16 23:26	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	362739	11/26/16 14:40	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	362919		CLB	TAL CHI
					(Start)	11/30/16 07:38		
					(End)	11/30/16 07:39		
Total/NA	Analysis	Field Sampling		1	362003	11/21/16 10:10	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/16/16 Start Purge: 0925 (2400 Hr. Clock) End Purge: 0945

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 102.41 (ft.)
Ground Water Elev. 518.36 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.59	9.61	9.61	(std.)
SC	1,610	1,620	1,620	(umhos/cm)
Temp.	11.65	11.65	11.65	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 53°F, Sunny, NE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 102.41 - 2.45 = 99.96 (ft.)
Levels were taken on 11/16/16 @ 0915.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/16/16 Start Purge: 1050 (2400 Hr. Clock) End Purge: 1110

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 88.96 (ft.)
Ground Water Elev. 523.36 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	10.07	10.08	10.08	(std.)
SC	2,180	2,190	2,190	(umhos/cm)
Temp.	15.20	15.12	15.12	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 58°F, Sunny, SE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 88.96 - 2.50 = 86.46 (ft.)
Levels were taken on 11/16/16 @ 1045.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/16/16 Start Purge: 1305 (2400 Hr. Clock) End Purge: 1319

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.72

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 66.69 (ft.)
Ground Water Elev. 536.62 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.35	7.34	7.34	(std.)
SC	971	966	966	(umhos/cm)
Temp.	15.00	14.94	14.94	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 63°F, Fair, Calm winds

Other: *Reference Measurement
Depth To Water from L.S. = 66.69 - 2.97 = 63.72 (ft.)
Levels were taken on 11/16/16 @ 1300.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/16/16 Start Purge: 1415 (2400 Hr. Clock) End Purge: 1430

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.18 (ft)

Ref. Measuring Pt. TIC

Well Elevation *586.69 (ft./msl)

Water Level 80.69 (ft.)

Ground Water Elev. 506.80 (ft./msl)

Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.15	7.15	7.15	(std.)
SC	882	885	885	(umhos/cm)
Temp.	15.67	15.45	15.45	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 63°F, Sunny, NW winds @ 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 80.69 - 2.18 = 78.51 (ft.)

Levels were taken on 11/16/16 @ 1410.

Sampler Name (Print): Noe Lopez Signature: NJ

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S Dup
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 2.18 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *586.69 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *455.11 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @ .

* DUP of G44S

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/17/16 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0935

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.78 (ft)

Ref. Measuring Pt. TIC

Well Elevation *580.33 (ft./msl)

Water Level 54.69 (ft.)

Ground Water Elev. 525.64 (ft./msl)

Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.44	7.44	7.44	(std.)
SC	658	659	659	(umhos/cm)
Temp.	15.40	15.42	15.42	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 59°F, Fair, S winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 54.69 - 2.78 = 51.91 (ft.)

Levels were taken on 11/17/16 @ 0910.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/17/16 Start Purge: 1408 (2400 Hr. Clock) End Purge: 1426

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.65 (ft./msl)
Water Level 135.03 (ft.)
Ground Water Elev. 494.62 (ft./msl) 11/30/16 dp
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.15	7.14	7.14	(std.)
SC	1,201	1192	1192	(umhos/cm)
Temp.	15.47	15.38	15.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 74°F, Partly Cloudy, S winds e 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 135.03 − 3.08 = 131.95 (ft.)
Levels were taken on 11/17/16 @ 1400.
* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/18/16 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0925

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 97.50 (ft.)

Ground Water Elev. 503.82 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.54	7.56	7.56	(std.)
SC	1400	1395	1395	(umhos/cm)
Temp.	14.61	14.62	14.62	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 63°F, Cloudy, S winds 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 97.50 - 2.70 = 94.80 (Ft.)

Levels were taken on 11/18/16 @ 0855.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/18/16 Start Purge: 1230 (2400 Hr. Clock) End Purge: 1244

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.27

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 2.57 (ft.)
Ground Water Elev. 521.83 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	8.00	8.04	8.04	(std.)
SC	1,580	1,580	1,580	(umhos/cm)
Temp.	13.07	13.02	13.02	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 63°F, Rain, S winds 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 2.57 - 2.31 = 0.26 (ft.)
Levels were taken on 11/18/16 @ 1225.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/18/16 Start Purge: 1440 (2400 Hr. Clock) End Purge: 1459

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.81 (ft./msl)
Water Level 20.24 (ft.)
Ground Water Elev. 516.57 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.38	7.38	7.38	(std.)
SC	775	769	769	(umhos/cm)
Temp.	12.23	12.23	12.23	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 61°F, Cloudy, SW wind 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 20.24 - 2.03 = 18.21 (ft.)
Levels were taken on 11/18/16 @ 1435.

Sampler Name (Print): Nic Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-120237-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/21/16 Start Purge: 0955 (2400 Hr. Clock) End Purge: 1010

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 67.84 (ft.)
Ground Water Elev. 510.81 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.49	7.53	7.53	(std.)
SC	973	979	979	(umhos/cm)
Temp.	11.73	11.76	11.76	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 35°F, Sunny, NE winds 0-5 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 67.84 - 2.55 = 65.29 (Ft.)
Levels were taken on 11/21/16 @ 0950.

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-120237-2
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
1/6/2017 3:19:26 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Job ID: 500-120237-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-120237-2

Comments
No additional comments.

Receipt
The samples were received on 11/16/2016 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 2.5º C, 2.6º C, 2.9º C, 2.9º C and 3.1º C.

RAD
Method(s) 904.0, 9320: Radium-228 Prep Batch 160-284912:
The radium-228 detection goal was not met for the following samples due to the reduced sample volume attributed to the presence of matrix interferences (see prep NCM 100925): G47S (500-120237-2). Analytical results are reported with the detection limit achieved.

Method(s) PrecSep_0: Radium-228 Prep Batch 160-281251:
The following samples were run at a reduced aliquot due to sediment in the sample: G47S (500-120237-2).

Method(s) PrecSep_0: Radium-228 Prep Batch 160-284912:
The following samples were prepared at a reduced aliquot due to sediment and cloudiness. G47S (500-120237-2).

Method(s) PrecSep_0: Radium-228 Prep Batch 160-284912:
The following samples were prepared at a reduced aliquot due to limited volume: G48S (500-120237-1) and (500-120237-E-1 DU).

Method(s) PrecSep-21: Radium-226 Prep Batch 160-281184:
The following samples were run at a reduced aliquot due to sediment in the sample: G47S (500-120237-2).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-120237-1	G48S	Water	11/16/16 09:45	11/16/16 16:50
500-120237-2	G47S	Water	11/16/16 11:10	11/16/16 16:50
500-120237-3	G45S	Water	11/16/16 13:19	11/16/16 16:50
500-120237-4	G44S	Water	11/16/16 14:30	11/16/16 16:50
500-120237-5	DUP	Water	11/16/16 14:30	11/16/16 16:50
500-120237-6	G20S	Water	11/17/16 09:35	11/17/16 16:20
500-120237-7	T03S	Water	11/17/16 14:26	11/17/16 16:20
500-120237-8	G46S	Water	11/18/16 09:25	11/19/16 08:00
500-120237-9	G30S	Water	11/18/16 12:44	11/19/16 08:00
500-120237-10	R32S	Water	11/18/16 14:59	11/19/16 08:00
500-120237-11	R08S	Water	11/21/16 10:10	11/21/16 11:35

Client Sample ID: G48S

Date Collected: 11/16/16 09:45
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.903		0.343	0.353	1.00	0.351	pCi/L	11/28/16 10:05	12/20/16 07:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.1*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:32*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.744		0.364	0.370	1.00	0.534	pCi/L	12/21/16 11:12	12/27/16 14:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.3*		*40 - 110*	*12/21/16 11:12*	*12/27/16 14:59*	*1*
Y Carrier	*93.8*		*40 - 110*	*12/21/16 11:12*	*12/27/16 14:59*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.65		0.500	0.511	5.00	0.534	pCi/L		01/06/17 14:16	1

Client Sample ID: G47S

Date Collected: 11/16/16 11:10
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-2

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.344	U	0.474	0.475	1.00	0.799	pCi/L	11/28/16 10:05	12/20/16 07:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:33*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.657	U G	0.830	0.833	1.00	1.38	pCi/L	12/21/16 11:12	12/27/16 15:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:05*	*1*
Y Carrier	*91.6*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.00	U	0.956	0.959	5.00	1.38	pCi/L		01/06/17 14:16	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Client Sample ID: G45S
Date Collected: 11/16/16 13:19
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-3
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.42		0.391	0.412	1.00	0.328	pCi/L	11/28/16 10:05	12/20/16 07:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.9*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:33*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.619		0.259	0.266	1.00	0.366	pCi/L	12/21/16 11:12	12/27/16 15:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.9*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:05*	*1*
Y Carrier	*95.0*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.04		0.469	0.490	5.00	0.366	pCi/L		01/06/17 14:16	1

Client Sample ID: G44S

Date Collected: 11/16/16 14:30
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.333**		0.230	0.232	1.00	0.318	pCi/L	11/28/16 10:05	12/20/16 07:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:33*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.141	U	0.206	0.206	1.00	0.345	pCi/L	12/21/16 11:12	12/27/16 15:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.5*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:05*	*1*
Y Carrier	*97.2*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:05*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.475**		0.309	0.310	5.00	0.345	pCi/L		01/06/17 14:16	1

Client Sample ID: DUP

Date Collected: 11/16/16 14:30
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.314	U	0.240	0.242	1.00	0.345	pCi/L	11/28/16 10:05	12/20/16 07:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.2*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:33*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.438**		0.259	0.262	1.00	0.393	pCi/L	12/21/16 11:12	12/27/16 15:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:06*	*1*
Y Carrier	*92.7*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.753**		0.353	0.357	5.00	0.393	pCi/L		01/06/17 14:16	1

Client Sample ID: G20S

Date Collected: 11/17/16 09:35
Date Received: 11/17/16 16:20

Lab Sample ID: 500-120237-6

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.16		0.365	0.380	1.00	0.340	pCi/L	11/28/16 10:05	12/20/16 07:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:33*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.828		0.369	0.377	1.00	0.535	pCi/L	12/21/16 11:12	12/27/16 15:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*61.5*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:06*	*1*
Y Carrier	*92.7*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.98		0.519	0.535	5.00	0.535	pCi/L		01/06/17 14:16	1

Client Sample ID: T03S

Date Collected: 11/17/16 14:26
Date Received: 11/17/16 16:20

Lab Sample ID: 500-120237-7

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.873		0.313	0.322	1.00	0.289	pCi/L	11/28/16 10:05	12/20/16 07:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.8*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:34*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.735		0.440	0.446	1.00	0.682	pCi/L	12/21/16 11:12	12/27/16 15:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*60.1*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:06*	*1*
Y Carrier	*91.6*		*40 - 110*	*12/21/16 11:12*	*12/27/16 15:06*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.61		0.540	0.550	5.00	0.682	pCi/L		01/06/17 14:16	1

Client Sample ID: G46S

Date Collected: 11/18/16 09:25
Date Received: 11/19/16 08:00

Lab Sample ID: 500-120237-8

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.257	U	0.268	0.269	1.00	0.425	pCi/L	11/30/16 11:03	01/04/17 23:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*11/30/16 11:03*	*01/04/17 23:32*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.289	U	0.363	0.364	1.00	0.601	pCi/L	11/30/16 12:26	01/04/17 18:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.8*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*
Y Carrier	*93.1*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.546	U	0.451	0.453	5.00	0.601	pCi/L		01/06/17 14:16	1

Client Sample ID: G30S

Date Collected: 11/18/16 12:44
Date Received: 11/19/16 08:00

Lab Sample ID: 500-120237-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.14		0.389	0.402	1.00	0.373	pCi/L	11/30/16 11:03	01/04/17 23:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*40 - 110*	*11/30/16 11:03*	*01/04/17 23:32*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.21		0.338	0.356	1.00	0.439	pCi/L	11/30/16 12:26	01/04/17 18:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.0*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*
Y Carrier	*93.1*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.36		0.515	0.537	5.00	0.439	pCi/L		01/06/17 14:16	1

Client Sample ID: R32S
Date Collected: 11/18/16 14:59
Date Received: 11/19/16 08:00

Lab Sample ID: 500-120237-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.73		0.513	0.536	1.00	0.449	pCi/L	11/30/16 11:03	01/04/17 23:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.2*		*40 - 110*	*11/30/16 11:03*	*01/04/17 23:32*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.45		0.420	0.440	1.00	0.542	pCi/L	11/30/16 12:26	01/04/17 18:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.2*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*
Y Carrier	*88.6*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.17		0.662	0.693	5.00	0.542	pCi/L		01/06/17 14:16	1

Client Sample ID: R08S

Date Collected: 11/21/16 10:10
Date Received: 11/21/16 11:35

Lab Sample ID: 500-120237-11

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.869		0.401	0.409	1.00	0.462	pCi/L	11/30/16 11:03	01/04/17 23:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.9*		*40 - 110*	*11/30/16 11:03*	*01/04/17 23:32*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.26		0.420	0.436	1.00	0.568	pCi/L	11/30/16 12:26	01/04/17 18:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*68.9*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*
Y Carrier	*86.7*		*40 - 110*	*11/30/16 12:26*	*01/04/17 18:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.13		0.581	0.597	5.00	0.568	pCi/L		01/06/17 14:16	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
G	The Sample MDC is greater than the requested RL.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Rad

Prep Batch: 281184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	PrecSep-21	
500-120237-2	G47S	Total/NA	Water	PrecSep-21	
500-120237-3	G45S	Total/NA	Water	PrecSep-21	
500-120237-4	G44S	Total/NA	Water	PrecSep-21	
500-120237-5	DUP	Total/NA	Water	PrecSep-21	
500-120237-6	G20S	Total/NA	Water	PrecSep-21	
500-120237-7	T03S	Total/NA	Water	PrecSep-21	
MB 160-281184/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-281184/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-120237-7 DU	T03S	Total/NA	Water	PrecSep-21	

Prep Batch: 281638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total/NA	Water	PrecSep-21	
500-120237-9	G30S	Total/NA	Water	PrecSep-21	
500-120237-10	R32S	Total/NA	Water	PrecSep-21	
500-120237-11	R08S	Total/NA	Water	PrecSep-21	
MB 160-281638/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-281638/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-120237-11 DU	R08S	Total/NA	Water	PrecSep-21	

Prep Batch: 281668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-8	G46S	Total/NA	Water	PrecSep_0	
500-120237-9	G30S	Total/NA	Water	PrecSep_0	
500-120237-10	R32S	Total/NA	Water	PrecSep_0	
500-120237-11	R08S	Total/NA	Water	PrecSep_0	
MB 160-281668/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-281668/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-120237-11 DU	R08S	Total/NA	Water	PrecSep_0	

Prep Batch: 284912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-120237-1	G48S	Total/NA	Water	PrecSep_0	
500-120237-2	G47S	Total/NA	Water	PrecSep_0	
500-120237-3	G45S	Total/NA	Water	PrecSep_0	
500-120237-4	G44S	Total/NA	Water	PrecSep_0	
500-120237-5	DUP	Total/NA	Water	PrecSep_0	
500-120237-6	G20S	Total/NA	Water	PrecSep_0	
500-120237-7	T03S	Total/NA	Water	PrecSep_0	
MB 160-284912/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-284912/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-120237-1 DU	G48S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-281184/1-A
Matrix: Water
Analysis Batch: 284552

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 281184

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0000	U	0.169	0.169	1.00	0.348	pCi/L	11/28/16 10:05	12/20/16 07:24	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.8*		*40 - 110*	*11/28/16 10:05*	*12/20/16 07:24*	*1*

Lab Sample ID: LCS 160-281184/2-A
Matrix: Water
Analysis Batch: 284692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 281184

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	13.26		1.65	1.00	0.425	pCi/L	119	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*77.8*		*40 - 110*

Lab Sample ID: 500-120237-7 DU
Matrix: Water
Analysis Batch: 284694

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 281184

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.873			0.9195		0.340	1.00	0.342	pCi/L			0.07	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*76.6*		*40 - 110*

Lab Sample ID: MB 160-281638/1-A
Matrix: Water
Analysis Batch: 286427

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 281638

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08063	U	0.224	0.224	1.00	0.420	pCi/L	11/30/16 11:03	01/04/17 23:22	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*11/30/16 11:03*	*01/04/17 23:22*	*1*

Lab Sample ID: LCS 160-281638/2-A
Matrix: Water
Analysis Batch: 286427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 281638

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.1	13.96		1.79	1.00	0.434	pCi/L	126	68 - 137		

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-281638/2-A
Matrix: Water
Analysis Batch: 286427

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 281638

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.5		40 - 110

Lab Sample ID: 500-120237-11 DU
Matrix: Water
Analysis Batch: 286428

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 281638

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.869			0.5939		0.341	1.00	0.433	pCi/L			0.37	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	74.9		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-281668/1-A
Matrix: Water
Analysis Batch: 286428

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 281668

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1072	U	0.271	0.271	1.00	0.467	pCi/L	11/30/16 12:26	01/04/17 18:12	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	76.6		40 - 110	11/30/16 12:26	01/04/17 18:12	1
Y Carrier	92.0		40 - 110	11/30/16 12:26	01/04/17 18:12	1

Lab Sample ID: LCS 160-281668/2-A
Matrix: Water
Analysis Batch: 286428

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 281668

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.0	15.45		1.68	1.00	0.474	pCi/L	110	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.5		40 - 110
Y Carrier	90.1		40 - 110

Lab Sample ID: 500-120237-11 DU
Matrix: Water
Analysis Batch: 286045

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 281668

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.26			0.7392		0.425	1.00	0.645	pCi/L			0.61	1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 500-120237-11 DU
Matrix: Water
Analysis Batch: 286045

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 281668

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	74.9		40 - 110
Y Carrier	86.0		40 - 110

Lab Sample ID: MB 160-284912/1-A
Matrix: Water
Analysis Batch: 285482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 284912

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1592	U	0.409	0.409	1.00	0.708	pCi/L	12/21/16 11:12	12/27/16 14:58	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	43.3		40 - 110	12/21/16 11:12	12/27/16 14:58	1
Y Carrier	91.6		40 - 110	12/21/16 11:12	12/27/16 14:58	1

Lab Sample ID: LCS 160-284912/2-A
Matrix: Water
Analysis Batch: 285482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 284912

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			14.1	15.63		1.66	1.00	0.421	pCi/L	111	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.8		40 - 110
Y Carrier	96.4		40 - 110

Lab Sample ID: 500-120237-1 DU
Matrix: Water
Analysis Batch: 285482

Client Sample ID: G48S
Prep Type: Total/NA
Prep Batch: 284912

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.744			0.6367		0.399	1.00	0.614	pCi/L			0.14	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	88.3		40 - 110
Y Carrier	91.6		40 - 110

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL
Phone: 708.534.5200 Fax: 708.5

500-120237 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.6, 3.1

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
1		G485	11/16/16	0945	5	W		✓	✓	✓						
2		G475	11/16/16	1110	5	W		✓	✓	✓						
3		G455	11/16/16	1319	5	W		✓	✓	✓						
4		G445	11/16/16	1430	5	W		✓	✓	✓						
5		MW-G445 DUP	11/16/16	1430	5	W		✓	✓	✓						Dup of G445

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	11/16/16	1650	[illegible]	TA-CHI	11/17/16	0705
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

1/6/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.9

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - CW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS						
6		G205	11/17/16	0935	4	W		1	1	1						mixing vol.
7		T035	11/17/16	1426	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°

500-120237 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	11/17/16	1620	[illegible]	TALE	11/17/16	1620

Lab Courier: TA Field Crew
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TAL-4124-500 (1209)

1/6/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.6

Client: Midwest Generation EmE LLC
Client Project #:
Project Name: Joliet #9 CCR - GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226/228	Parameter: Total Metals	Parameter: Cl, Fl, SO4, TDS							Comments
								3	3	8							
8		G46 S	11/18/16	0925	5	W		1	1	1							
9		G30 S	11/18/16	1244	5	W		1	1	1							
10		R32 S	11/18/16	1459	5	W		1	1	1							

Pr
1. HCL
2. H2S
3. HNC
4. NaC 500-120237 COC
5. NaC
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	11/18/16	1620	[signature]	TALH	11/19/16	0800
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA Sampler
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-120237 COC

Chain of Custody Record

Lab Job #: 500-120237

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.9

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
1		RCRA	11/21/16	1010	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TMC	11/21/16	1135	[signature]	TA-CHT	11/21/16	1135
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-120237 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	COC No: 500-80495.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois	Job #: 500-120237-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/14/2016		
City: Earth City	TAT Requested (days):		
State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: Joliet #9 CCR	Project #: 50011504		
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G48S (500-120237-1)	11/16/16	09:45 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-120237-2)	11/16/16	11:10 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-120237-3)	11/16/16	13:19 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-120237-4)	11/16/16	14:30 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-120237-5)	11/16/16	14:30 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/17/16 @ 1600	Company TA	Received by:	Date/Time: 11-18-16 0930	Company TA	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-120237 Chain of Custody

TestAmerica
LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.		516.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-120237-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/29/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-120237-6)	11/17/16	09:35 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-120237-7)	11/17/16	14:26 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
David Sandy	11/17/16 17:00	TA CHI		11.18.16 0930	TA CHI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-120237 Chain of Custody

stAmerica
ADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.		619.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-120237-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/29/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
R08S (500-120237-11)	11/21/16	10:10 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/21/16 @ 1600	Company TA	Received by:	Date/Time: 11.22.16 1000	Company TAStacy
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-120237 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.		C No: 0-80619.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-120237-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/15/2016			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G46S (500-120237-8)	11/18/16	09:25 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G30S (500-120237-9)	11/18/16	12:44 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-120237-10)	11/18/16	14:59 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 11/21/16 @ 1600	Company TA	Received by:	Date/Time: 11-22-16/1000	Company TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

1/6/2017

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-120237-2

Login Number: 120237
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,3.1,2.9,2.5,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-120237-2

Login Number: 120237
List Number: 2
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 11/19/16 05:08 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	17.7, 17.7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-120237-2

Login Number: 120237
List Number: 3
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 11/22/16 04:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.4, 18.4, 18.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Client Sample ID: G48S
Date Collected: 11/16/16 09:45
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281184	11/28/16 10:05	CMC	TAL SL
Total/NA	Analysis	903.0		1	284694	12/20/16 07:32	MLK	TAL SL
Total/NA	Prep	PrecSep_0			284912	12/21/16 11:12	AS	TAL SL
Total/NA	Analysis	904.0		1	285482	12/27/16 14:59	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: G47S
Date Collected: 11/16/16 11:10
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281184	11/28/16 10:05	CMC	TAL SL
Total/NA	Analysis	903.0		1	284694	12/20/16 07:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			284912	12/21/16 11:12	AS	TAL SL
Total/NA	Analysis	904.0		1	285489	12/27/16 15:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: G45S
Date Collected: 11/16/16 13:19
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281184	11/28/16 10:05	CMC	TAL SL
Total/NA	Analysis	903.0		1	284694	12/20/16 07:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			284912	12/21/16 11:12	AS	TAL SL
Total/NA	Analysis	904.0		1	285489	12/27/16 15:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: G44S
Date Collected: 11/16/16 14:30
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281184	11/28/16 10:05	CMC	TAL SL
Total/NA	Analysis	903.0		1	284694	12/20/16 07:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			284912	12/21/16 11:12	AS	TAL SL
Total/NA	Analysis	904.0		1	285489	12/27/16 15:05	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Client Sample ID: DUP
Date Collected: 11/16/16 14:30
Date Received: 11/16/16 16:50

Lab Sample ID: 500-120237-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281184	11/28/16 10:05	CMC	TAL SL
Total/NA	Analysis	903.0		1	284694	12/20/16 07:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			284912	12/21/16 11:12	AS	TAL SL
Total/NA	Analysis	904.0		1	285489	12/27/16 15:06	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: G20S
Date Collected: 11/17/16 09:35
Date Received: 11/17/16 16:20

Lab Sample ID: 500-120237-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281184	11/28/16 10:05	CMC	TAL SL
Total/NA	Analysis	903.0		1	284694	12/20/16 07:33	MLK	TAL SL
Total/NA	Prep	PrecSep_0			284912	12/21/16 11:12	AS	TAL SL
Total/NA	Analysis	904.0		1	285489	12/27/16 15:06	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: T03S
Date Collected: 11/17/16 14:26
Date Received: 11/17/16 16:20

Lab Sample ID: 500-120237-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281184	11/28/16 10:05	CMC	TAL SL
Total/NA	Analysis	903.0		1	284694	12/20/16 07:34	MLK	TAL SL
Total/NA	Prep	PrecSep_0			284912	12/21/16 11:12	AS	TAL SL
Total/NA	Analysis	904.0		1	285489	12/27/16 15:06	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: G46S
Date Collected: 11/18/16 09:25
Date Received: 11/19/16 08:00

Lab Sample ID: 500-120237-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281638	11/30/16 11:03	AS	TAL SL
Total/NA	Analysis	903.0		1	286428	01/04/17 23:32	ALD	TAL SL
Total/NA	Prep	PrecSep_0			281668	11/30/16 12:26	AS	TAL SL
Total/NA	Analysis	904.0		1	286045	01/04/17 18:08	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Client Sample ID: G30S

Lab Sample ID: 500-120237-9

Date Collected: 11/18/16 12:44
Matrix: Water
Date Received: 11/19/16 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281638	11/30/16 11:03	AS	TAL SL
Total/NA	Analysis	903.0		1	286428	01/04/17 23:32	ALD	TAL SL
Total/NA	Prep	PrecSep_0			281668	11/30/16 12:26	AS	TAL SL
Total/NA	Analysis	904.0		1	286045	01/04/17 18:08	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: R32S

Lab Sample ID: 500-120237-10

Date Collected: 11/18/16 14:59
Matrix: Water
Date Received: 11/19/16 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281638	11/30/16 11:03	AS	TAL SL
Total/NA	Analysis	903.0		1	286428	01/04/17 23:32	ALD	TAL SL
Total/NA	Prep	PrecSep_0			281668	11/30/16 12:26	AS	TAL SL
Total/NA	Analysis	904.0		1	286045	01/04/17 18:08	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Client Sample ID: R08S

Lab Sample ID: 500-120237-11

Date Collected: 11/21/16 10:10
Matrix: Water
Date Received: 11/21/16 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			281638	11/30/16 11:03	AS	TAL SL
Total/NA	Analysis	903.0		1	286428	01/04/17 23:32	ALD	TAL SL
Total/NA	Prep	PrecSep_0			281668	11/30/16 12:26	AS	TAL SL
Total/NA	Analysis	904.0		1	286045	01/04/17 18:08	ALD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	286840	01/06/17 14:16	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-120237-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-120237-1	G48S	74.1
500-120237-2	G47S	79.5
500-120237-3	G45S	82.9
500-120237-4	G44S	86.6
500-120237-5	DUP	81.2
500-120237-6	G20S	82.6
500-120237-7	T03S	81.8
500-120237-7 DU	T03S	76.6
500-120237-8	G46S	73.8
500-120237-9	G30S	88.0
500-120237-10	R32S	69.2
500-120237-11	R08S	68.9
500-120237-11 DU	R08S	74.9
LCS 160-281184/2-A	Lab Control Sample	77.8
LCS 160-281638/2-A	Lab Control Sample	83.5
MB 160-281184/1-A	Method Blank	83.8
MB 160-281638/1-A	Method Blank	76.6

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-120237-1	G48S	78.3	93.8
500-120237-1 DU	G48S	88.3	91.6
500-120237-2	G47S	85.8	91.6
500-120237-3	G45S	80.9	95.0
500-120237-4	G44S	81.5	97.2
500-120237-5	DUP	78.9	92.7
500-120237-6	G20S	61.5	92.7
500-120237-7	T03S	60.1	91.6
500-120237-8	G46S	73.8	93.1
500-120237-9	G30S	88.0	93.1
500-120237-10	R32S	69.2	88.6
500-120237-11	R08S	68.9	86.7
500-120237-11 DU	R08S	74.9	86.0
LCS 160-281668/2-A	Lab Control Sample	83.5	90.1
LCS 160-284912/2-A	Lab Control Sample	83.8	96.4
MB 160-281668/1-A	Method Blank	76.6	92.0
MB 160-284912/1-A	Method Blank	43.3	91.6

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-123791-1
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
2/28/2017 1:30:47 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-123791-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-123791-1

Comments
No additional comments.

Receipt
The samples were received on 2/13/2017 4:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 3.8º C, 4.6º C, 4.7º C, 5.8º C and 5.9º C.

Metals
Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-372104. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-372300. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-123791-1	G20S	Water	02/13/17 10:20	02/13/17 16:05
500-123791-2	G30S	Water	02/14/17 09:53	02/14/17 15:40
500-123791-3	G45S	Water	02/14/17 12:16	02/14/17 15:40
500-123791-4	G45S Dup	Water	02/14/17 12:16	02/14/17 15:40
500-123791-5	R08S	Water	02/14/17 14:00	02/14/17 15:40
500-123791-6	T03S	Water	02/15/17 09:44	02/15/17 16:42
500-123791-7	G48S	Water	02/15/17 12:15	02/15/17 16:42
500-123791-8	G47S	Water	02/15/17 14:35	02/15/17 16:42
500-123791-9	G46S	Water	02/16/17 09:40	02/16/17 16:35
500-123791-10	G44S	Water	02/16/17 13:27	02/16/17 16:35
500-123791-11	R32S	Water	02/16/17 15:22	02/16/17 16:35

Client Sample ID: G20S
Date Collected: 02/13/17 10:20
Date Received: 02/13/17 16:05

Lab Sample ID: 500-123791-1
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.040**		0.010		mg/L		02/14/17 08:43	02/14/17 14:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/14/17 08:43	02/14/17 17:45	1
Arsenic	<0.0010		0.0010		mg/L		02/14/17 08:43	02/14/17 17:45	1
Barium	**0.046**		0.0025		mg/L		02/14/17 08:43	02/14/17 17:45	1
Beryllium	<0.0010		0.0010		mg/L		02/14/17 08:43	02/14/17 17:45	1
Boron	**1.2**		0.050		mg/L		02/14/17 08:43	02/14/17 17:45	1
Cadmium	<0.00050		0.00050		mg/L		02/14/17 08:43	02/14/17 17:45	1
Calcium	**54**		0.20		mg/L		02/14/17 08:43	02/14/17 17:45	1
Chromium	<0.0050		0.0050		mg/L		02/14/17 08:43	02/14/17 17:45	1
Cobalt	<0.0010		0.0010		mg/L		02/14/17 08:43	02/14/17 17:45	1
Lead	<0.00050		0.00050		mg/L		02/14/17 08:43	02/14/17 17:45	1
Molybdenum	**0.018**		0.0050		mg/L		02/14/17 08:43	02/14/17 17:45	1
Selenium	<0.0025		0.0025		mg/L		02/14/17 08:43	02/14/17 17:45	1
Thallium	<0.0020		0.0020		mg/L		02/14/17 08:43	02/14/17 17:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/14/17 13:00	02/15/17 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**400**		10		mg/L			02/14/17 23:50	1
Chloride	**13**		2.0		mg/L			02/16/17 21:24	1
Fluoride	**0.69**		0.10		mg/L			02/22/17 13:47	1
Sulfate	**93**		20		mg/L			02/23/17 03:35	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**52.41**				ft			02/13/17 10:20	1
Depth to water from land surface	**49.63**				ft			02/13/17 10:20	1
Elevation of well (ft from MP)	**580.33**				ft			02/13/17 10:20	1
Field pH	**7.30**				SU			02/13/17 10:20	1
Field Temperature	**50.4**				Degrees F			02/13/17 10:20	1
Ground Water Elevation	**527.92**				ft			02/13/17 10:20	1
Specific Conductance	**621**				umhos/cm			02/13/17 10:20	1
Well bottom elevation	**442.28**				ft			02/13/17 10:20	1

Client Sample ID: G30S
Date Collected: 02/14/17 09:53
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-2
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.021**		0.010		mg/L		02/15/17 08:16	02/21/17 04:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/15/17 08:16	02/15/17 14:42	1
Arsenic	**0.011**		0.0010		mg/L		02/15/17 08:16	02/16/17 13:08	1
Barium	**0.042**		0.025		mg/L		02/15/17 08:16	02/20/17 20:44	10
Beryllium	<0.0010		0.0010		mg/L		02/15/17 08:16	02/16/17 13:08	1
Boron	**5.4**		0.50		mg/L		02/15/17 08:16	02/20/17 20:44	10
Cadmium	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:42	1
Calcium	**62**		0.20		mg/L		02/15/17 08:16	02/15/17 14:42	1
Chromium	<0.0050		0.0050		mg/L		02/15/17 08:16	02/15/17 14:42	1
Cobalt	<0.0010		0.0010		mg/L		02/15/17 08:16	02/15/17 14:42	1
Lead	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:42	1
Molybdenum	**0.24**		0.0050		mg/L		02/15/17 08:16	02/16/17 13:08	1
Selenium	<0.0025		0.0025		mg/L		02/15/17 08:16	02/15/17 14:42	1
Thallium	<0.0020		0.0020		mg/L		02/15/17 08:16	02/15/17 14:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/15/17 13:00	02/16/17 08:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			02/14/17 23:58	1
Chloride	**190**		10		mg/L			02/16/17 22:00	5
Fluoride	**1.2**		0.10		mg/L			02/22/17 13:49	1
Sulfate	**450**		100		mg/L			02/23/17 03:36	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**2.13**				ft			02/14/17 09:53	1
Depth to water from land surface	**-0.18**				ft			02/14/17 09:53	1
Elevation of well (ft from MP)	**524.40**				ft			02/14/17 09:53	1
Field pH	**7.70**				SU			02/14/17 09:53	1
Field Temperature	**46.4**				Degrees F			02/14/17 09:53	1
Ground Water Elevation	**522.27**				ft			02/14/17 09:53	1
Specific Conductance	**1510**				umhos/cm			02/14/17 09:53	1
Well bottom elevation	**462.58**				ft			02/14/17 09:53	1

Client Sample ID: G45S
Date Collected: 02/14/17 12:16
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-3
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.029**		0.010		mg/L		02/15/17 08:16	02/21/17 05:04	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/15/17 08:16	02/15/17 14:45	1
Arsenic	**0.0093**		0.0010		mg/L		02/15/17 08:16	02/16/17 12:46	1
Barium	**0.037**		0.0025		mg/L		02/15/17 08:16	02/20/17 20:48	1
Beryllium	<0.0010		0.0010		mg/L		02/15/17 08:16	02/16/17 12:46	1
Boron	**0.43**		0.050		mg/L		02/15/17 08:16	02/20/17 20:48	1
Cadmium	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:45	1
Calcium	**97**		0.20		mg/L		02/15/17 08:16	02/15/17 14:45	1
Chromium	<0.0050		0.0050		mg/L		02/15/17 08:16	02/15/17 14:45	1
Cobalt	<0.0010		0.0010		mg/L		02/15/17 08:16	02/15/17 14:45	1
Lead	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:45	1
Molybdenum	**0.0083**		0.0050		mg/L		02/15/17 08:16	02/16/17 12:46	1
Selenium	<0.0025		0.0025		mg/L		02/15/17 08:16	02/15/17 14:45	1
Thallium	<0.0020		0.0020		mg/L		02/15/17 08:16	02/15/17 14:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/15/17 13:00	02/16/17 08:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**620**		10		mg/L			02/15/17 00:01	1
Chloride	**97**		10		mg/L			02/16/17 22:01	5
Fluoride	**0.32**		0.10		mg/L			02/22/17 13:51	1
Sulfate	**160**		50		mg/L			02/23/17 03:39	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**65.34**				ft			02/14/17 12:16	1
Depth to water from land surface	**62.37**				ft			02/14/17 12:16	1
Elevation of well (ft from MP)	**603.31**				ft			02/14/17 12:16	1
Field pH	**7.36**				SU			02/14/17 12:16	1
Field Temperature	**55.0**				Degrees F			02/14/17 12:16	1
Ground Water Elevation	**537.97**				ft			02/14/17 12:16	1
Specific Conductance	**905**				umhos/cm			02/14/17 12:16	1
Well bottom elevation	**471.05**				ft			02/14/17 12:16	1

Client Sample ID: G45S Dup

Date Collected: 02/14/17 12:16
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.030**		0.010		mg/L		02/15/17 08:16	02/21/17 05:08	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/15/17 08:16	02/15/17 14:49	1
Arsenic	**0.0094**		0.0010		mg/L		02/15/17 08:16	02/16/17 12:50	1
Barium	**0.038**		0.0025		mg/L		02/15/17 08:16	02/20/17 20:52	1
Beryllium	<0.0010		0.0010		mg/L		02/15/17 08:16	02/16/17 12:50	1
Boron	**0.44**		0.050		mg/L		02/15/17 08:16	02/20/17 20:52	1
Cadmium	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:49	1
Calcium	**100**		0.20		mg/L		02/15/17 08:16	02/15/17 14:49	1
Chromium	<0.0050		0.0050		mg/L		02/15/17 08:16	02/15/17 14:49	1
Cobalt	<0.0010		0.0010		mg/L		02/15/17 08:16	02/15/17 14:49	1
Lead	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:49	1
Molybdenum	**0.0086**		0.0050		mg/L		02/15/17 08:16	02/16/17 12:50	1
Selenium	<0.0025		0.0025		mg/L		02/15/17 08:16	02/15/17 14:49	1
Thallium	<0.0020		0.0020		mg/L		02/15/17 08:16	02/15/17 14:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/15/17 13:00	02/16/17 08:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**660**		10		mg/L			02/15/17 00:03	1
Chloride	**97**		10		mg/L			02/16/17 22:02	5
Fluoride	**0.30**		0.10		mg/L			02/22/17 13:54	1
Sulfate	**170**		50		mg/L			02/23/17 03:40	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**65.34**				ft			02/14/17 12:16	1
Depth to water from land surface	**62.37**				ft			02/14/17 12:16	1
Elevation of well (ft from MP)	**603.31**				ft			02/14/17 12:16	1
Field pH	**7.36**				SU			02/14/17 12:16	1
Field Temperature	**55.0**				Degrees F			02/14/17 12:16	1
Ground Water Elevation	**537.97**				ft			02/14/17 12:16	1
Specific Conductance	**905**				umhos/cm			02/14/17 12:16	1
Well bottom elevation	**471.05**				ft			02/14/17 12:16	1

Client Sample ID: R08S
Date Collected: 02/14/17 14:00
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-5
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.12**		0.010		mg/L		02/15/17 08:16	02/21/17 05:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/15/17 08:16	02/15/17 14:53	1
Arsenic	**0.0020**		0.0010		mg/L		02/15/17 08:16	02/16/17 13:12	1
Barium	**0.081**		0.025		mg/L		02/15/17 08:16	02/20/17 20:56	10
Beryllium	<0.0010		0.0010		mg/L		02/15/17 08:16	02/16/17 13:12	1
Boron	**5.4**		0.50		mg/L		02/15/17 08:16	02/20/17 20:56	10
Cadmium	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:53	1
Calcium	**150**		0.20		mg/L		02/15/17 08:16	02/15/17 14:53	1
Chromium	<0.0050		0.0050		mg/L		02/15/17 08:16	02/15/17 14:53	1
Cobalt	<0.0010		0.0010		mg/L		02/15/17 08:16	02/15/17 14:53	1
Lead	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 14:53	1
Molybdenum	**0.30**		0.0050		mg/L		02/15/17 08:16	02/16/17 13:12	1
Selenium	**0.0029**		0.0025		mg/L		02/15/17 08:16	02/15/17 14:53	1
Thallium	<0.0020		0.0020		mg/L		02/15/17 08:16	02/15/17 14:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/15/17 13:00	02/16/17 08:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			02/15/17 00:06	1
Chloride	**220**		10		mg/L			02/16/17 22:03	5
Fluoride	**0.17**		0.10		mg/L			02/22/17 13:57	1
Sulfate	**280**		100		mg/L			02/23/17 03:41	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**69.28**				ft			02/14/17 14:00	1
Depth to water from land surface	**66.73**				ft			02/14/17 14:00	1
Elevation of well (ft from MP)	**578.65**				ft			02/14/17 14:00	1
Field pH	**7.60**				SU			02/14/17 14:00	1
Field Temperature	**54.0**				Degrees F			02/14/17 14:00	1
Ground Water Elevation	**509.37**				ft			02/14/17 14:00	1
Specific Conductance	**1520**				umhos/cm			02/14/17 14:00	1
Well bottom elevation	**453.08**				ft			02/14/17 14:00	1

Client Sample ID: T03S
Date Collected: 02/15/17 09:44
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-6
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.050		0.050		mg/L		02/21/17 15:00	02/22/17 16:46	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/18/17 10:19	02/20/17 22:45	1
Arsenic	**0.0011**		0.0010		mg/L		02/18/17 10:19	02/20/17 22:45	1
Barium	**0.086**		0.0025		mg/L		02/18/17 10:19	02/20/17 22:45	1
Beryllium	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 22:45	1
Boron	**1.0**		0.050		mg/L		02/18/17 10:19	02/22/17 17:03	1
Cadmium	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 22:45	1
Calcium	**98**		0.20		mg/L		02/18/17 10:19	02/22/17 17:03	1
Chromium	<0.0050		0.0050		mg/L		02/18/17 10:19	02/20/17 22:45	1
Cobalt	**0.0013**		0.0010		mg/L		02/18/17 10:19	02/20/17 22:45	1
Lead	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 22:45	1
Molybdenum	**0.12**		0.0050		mg/L		02/18/17 10:19	02/20/17 22:45	1
Selenium	<0.0025		0.0025		mg/L		02/18/17 10:19	02/20/17 22:45	1
Thallium	<0.0020		0.0020		mg/L		02/18/17 10:19	02/20/17 22:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/16/17 12:45	02/17/17 09:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**810**		10		mg/L			02/16/17 06:14	1
Chloride	**110**		10		mg/L			02/16/17 22:03	5
Fluoride	**0.19**		0.10		mg/L			02/22/17 13:59	1
Sulfate	**230**		50		mg/L			02/23/17 03:42	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**134.92**				ft			02/15/17 09:44	1
Depth to water from land surface	**131.84**				ft			02/15/17 09:44	1
Elevation of well (ft from MP)	**629.65**				ft			02/15/17 09:44	1
Field pH	**7.36**				SU			02/15/17 09:44	1
Field Temperature	**45.1**				Degrees F			02/15/17 09:44	1
Ground Water Elevation	**494.73**				ft			02/15/17 09:44	1
Specific Conductance	**1180**				umhos/cm			02/15/17 09:44	1
Well bottom elevation	**456.70**				ft			02/15/17 09:44	1

Client Sample ID: G48S
Date Collected: 02/15/17 12:15
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.014**		0.010		mg/L		02/21/17 15:00	02/22/17 16:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/18/17 10:19	02/20/17 22:56	1
Arsenic	**0.038**		0.0010		mg/L		02/18/17 10:19	02/20/17 22:56	1
Barium	**0.015**		0.0025		mg/L		02/18/17 10:19	02/20/17 22:56	1
Beryllium	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 22:56	1
Boron	**8.4**		1.0		mg/L		02/18/17 10:19	02/22/17 17:07	20
Cadmium	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 22:56	1
Calcium	**8.3**		4.0		mg/L		02/18/17 10:19	02/22/17 17:07	20
Chromium	<0.0050		0.0050		mg/L		02/18/17 10:19	02/20/17 22:56	1
Cobalt	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 22:56	1
Lead	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 22:56	1
Molybdenum	**0.79**		0.0050		mg/L		02/18/17 10:19	02/20/17 22:56	1
Selenium	<0.0025		0.0025		mg/L		02/18/17 10:19	02/20/17 22:56	1
Thallium	<0.0020		0.0020		mg/L		02/18/17 10:19	02/20/17 22:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/16/17 12:45	02/17/17 09:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			02/16/17 06:19	1
Chloride	**120**		10		mg/L			02/16/17 22:04	5
Fluoride	**1.2**		0.10		mg/L			02/22/17 14:02	1
Sulfate	**490**		100		mg/L			02/23/17 03:43	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**103.05**				ft			02/15/17 12:15	1
Depth to water from land surface	**100.60**				ft			02/15/17 12:15	1
Elevation of well (ft from MP)	**620.77**				ft			02/15/17 12:15	1
Field pH	**9.63**				SU			02/15/17 12:15	1
Field Temperature	**47.8**				Degrees F			02/15/17 12:15	1
Ground Water Elevation	**517.05**				ft			02/15/17 12:15	1
Specific Conductance	**1530**				umhos/cm			02/15/17 12:15	1
Well bottom elevation	**468.32**				ft			02/15/17 12:15	1

Client Sample ID: G47S
Date Collected: 02/15/17 14:35
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.050		0.050		mg/L		02/21/17 15:00	02/22/17 16:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/18/17 10:19	02/20/17 23:00	1
Arsenic	**0.059**		0.0010		mg/L		02/18/17 10:19	02/20/17 23:00	1
Barium	**0.016**		0.0025		mg/L		02/18/17 10:19	02/20/17 23:00	1
Beryllium	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 23:00	1
Boron	**7.6**		1.0		mg/L		02/18/17 10:19	02/22/17 17:11	20
Cadmium	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 23:00	1
Calcium	**4.4**		4.0		mg/L		02/18/17 10:19	02/22/17 17:11	20
Chromium	<0.0050		0.0050		mg/L		02/18/17 10:19	02/20/17 23:00	1
Cobalt	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 23:00	1
Lead	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 23:00	1
Molybdenum	**0.57**		0.0050		mg/L		02/18/17 10:19	02/20/17 23:00	1
Selenium	**0.0035**		0.0025		mg/L		02/18/17 10:19	02/20/17 23:00	1
Thallium	<0.0020		0.0020		mg/L		02/18/17 10:19	02/20/17 23:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/16/17 12:45	02/17/17 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1200**		10		mg/L			02/16/17 06:22	1
Chloride	**160**		10		mg/L			02/16/17 22:04	5
Fluoride	**1.1**		0.10		mg/L			02/22/17 14:04	1
Sulfate	**540**		100		mg/L			02/23/17 03:44	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**96.41**				ft			02/15/17 14:35	1
Depth to water from land surface	**93.91**				ft			02/15/17 14:35	1
Elevation of well (ft from MP)	**612.32**				ft			02/15/17 14:35	1
Field pH	**9.26**				SU			02/15/17 14:35	1
Field Temperature	**49.8**				Degrees F			02/15/17 14:35	1
Ground Water Elevation	**515.91**				ft			02/15/17 14:35	1
Specific Conductance	**1295**				umhos/cm			02/15/17 14:35	1
Well bottom elevation	**459.84**				ft			02/15/17 14:35	1

Client Sample ID: G46S
Date Collected: 02/16/17 09:40
Date Received: 02/16/17 16:35

Lab Sample ID: 500-123791-9
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.091**		0.010		mg/L		02/17/17 08:10	02/21/17 03:52	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/17/17 08:10	02/17/17 15:35	1
Arsenic	**0.0024**		0.0010		mg/L		02/17/17 08:10	02/17/17 15:35	1
Barium	**0.053**		0.0025		mg/L		02/17/17 08:10	02/17/17 15:35	1
Beryllium	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:35	1
Boron	**6.1**		1.0		mg/L		02/17/17 08:10	02/20/17 19:59	20
Cadmium	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:35	1
Calcium	**100**		0.20		mg/L		02/17/17 08:10	02/17/17 15:35	1
Chromium	<0.0050		0.0050		mg/L		02/17/17 08:10	02/17/17 15:35	1
Cobalt	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:35	1
Lead	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:35	1
Molybdenum	**1.4**		0.0050		mg/L		02/17/17 08:10	02/17/17 15:35	1
Selenium	<0.0025		0.0025		mg/L		02/17/17 08:10	02/17/17 15:35	1
Thallium	<0.0020		0.0020		mg/L		02/17/17 08:10	02/17/17 15:35	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/17/17 13:30	02/20/17 11:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			02/20/17 04:43	1
Chloride	**150**		10		mg/L			02/17/17 00:21	5
Fluoride	**0.41**		0.10		mg/L			02/22/17 14:07	1
Sulfate	**410**		100		mg/L			02/23/17 03:45	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**98.14**				ft			02/16/17 09:40	1
Depth to water from land surface	**95.44**				ft			02/16/17 09:40	1
Elevation of well (ft from MP)	**601.32**				ft			02/16/17 09:40	1
Field pH	**7.94**				SU			02/16/17 09:40	1
Field Temperature	**47.8**				Degrees F			02/16/17 09:40	1
Ground Water Elevation	**503.18**				ft			02/16/17 09:40	1
Specific Conductance	**1370**				umhos/cm			02/16/17 09:40	1
Well bottom elevation	**453.62**				ft			02/16/17 09:40	1

Client Sample ID: G44S
Date Collected: 02/16/17 13:27
Date Received: 02/16/17 16:35

Lab Sample ID: 500-123791-10
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.014**		0.010		mg/L		02/17/17 08:10	02/21/17 03:56	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/17/17 08:10	02/17/17 15:38	1
Arsenic	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:38	1
Barium	**0.051**		0.0025		mg/L		02/17/17 08:10	02/17/17 15:38	1
Beryllium	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:38	1
Boron	**0.86**		0.050		mg/L		02/17/17 08:10	02/20/17 20:03	1
Cadmium	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:38	1
Calcium	**120**		0.20		mg/L		02/17/17 08:10	02/17/17 15:38	1
Chromium	<0.0050		0.0050		mg/L		02/17/17 08:10	02/17/17 15:38	1
Cobalt	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:38	1
Lead	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:38	1
Molybdenum	**0.044**		0.0050		mg/L		02/17/17 08:10	02/17/17 15:38	1
Selenium	<0.0025		0.0025		mg/L		02/17/17 08:10	02/17/17 15:38	1
Thallium	<0.0020		0.0020		mg/L		02/17/17 08:10	02/17/17 15:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/17/17 13:30	02/20/17 11:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**620**		10		mg/L			02/20/17 04:45	1
Chloride	**30**		2.0		mg/L			02/16/17 23:51	1
Fluoride	**0.15**		0.10		mg/L			02/22/17 14:18	1
Sulfate	**120**		25		mg/L			02/23/17 03:46	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**84.34**				ft			02/16/17 13:27	1
Depth to water from land surface	**82.16**				ft			02/16/17 13:27	1
Elevation of well (ft from MP)	**586.69**				ft			02/16/17 13:27	1
Field pH	**7.38**				SU			02/16/17 13:27	1
Field Temperature	**50.5**				Degrees F			02/16/17 13:27	1
Ground Water Elevation	**502.35**				ft			02/16/17 13:27	1
Specific Conductance	**867**				umhos/cm			02/16/17 13:27	1
Well bottom elevation	**455.11**				ft			02/16/17 13:27	1

Client Sample ID: R32S
Date Collected: 02/16/17 15:22
Date Received: 02/16/17 16:35

Lab Sample ID: 500-123791-11
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.064**		0.010		mg/L		02/17/17 08:10	02/21/17 03:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/17/17 08:10	02/17/17 15:42	1
Arsenic	**0.0020**		0.0010		mg/L		02/17/17 08:10	02/17/17 15:42	1
Barium	**0.039**		0.0025		mg/L		02/17/17 08:10	02/17/17 15:42	1
Beryllium	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:42	1
Boron	**4.0**	**F1**	1.0		mg/L		02/17/17 08:10	02/20/17 20:07	20
Cadmium	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:42	1
Calcium	**120**		0.20		mg/L		02/17/17 08:10	02/17/17 15:42	1
Chromium	<0.0050		0.0050		mg/L		02/17/17 08:10	02/17/17 15:42	1
Cobalt	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:42	1
Lead	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:42	1
Molybdenum	**0.57**		0.0050		mg/L		02/17/17 08:10	02/17/17 15:42	1
Selenium	<0.0025	F1	0.0025		mg/L		02/17/17 08:10	02/17/17 15:42	1
Thallium	<0.0020		0.0020		mg/L		02/17/17 08:10	02/17/17 15:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/17/17 13:30	02/20/17 11:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**830**		10		mg/L			02/20/17 04:48	1
Chloride	**99**		10		mg/L			02/17/17 00:22	5
Fluoride	**0.34**		0.10		mg/L			02/22/17 14:20	1
Sulfate	**340**		100		mg/L			02/23/17 03:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**21.12**				ft			02/16/17 15:22	1
Depth to water from land surface	**19.09**				ft			02/16/17 15:22	1
Elevation of well (ft from MP)	**536.81**				ft			02/16/17 15:22	1
Field pH	**7.39**				SU			02/16/17 15:22	1
Field Temperature	**52.2**				Degrees F			02/16/17 15:22	1
Ground Water Elevation	**515.69**				ft			02/16/17 15:22	1
Specific Conductance	**733**				umhos/cm			02/16/17 15:22	1
Well bottom elevation	**457.84**				ft			02/16/17 15:22	1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 371917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total Recoverable	Water	3005A	
MB 500-371917/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-371917/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-123791-1 MS	G20S	Total Recoverable	Water	3005A	
500-123791-1 MSD	G20S	Total Recoverable	Water	3005A	
500-123791-1 DU	G20S	Total Recoverable	Water	3005A	

Prep Batch: 371954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	7470A	
MB 500-371954/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-371954/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 372002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total Recoverable	Water	6010C	371917
MB 500-371917/1-A	Method Blank	Total Recoverable	Water	6010C	371917
LCS 500-371917/2-A	Lab Control Sample	Total Recoverable	Water	6010C	371917
500-123791-1 MS	G20S	Total Recoverable	Water	6010C	371917
500-123791-1 MSD	G20S	Total Recoverable	Water	6010C	371917
500-123791-1 DU	G20S	Total Recoverable	Water	6010C	371917

Prep Batch: 372095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-2	G30S	Total Recoverable	Water	3005A	
500-123791-3	G45S	Total Recoverable	Water	3005A	
500-123791-4	G45S Dup	Total Recoverable	Water	3005A	
500-123791-5	R08S	Total Recoverable	Water	3005A	
MB 500-372095/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-372095/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 372104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total Recoverable	Water	6020A	371917
MB 500-371917/1-A	Method Blank	Total Recoverable	Water	6020A	371917
LCS 500-371917/2-A	Lab Control Sample	Total Recoverable	Water	6020A	371917
500-123791-1 MS	G20S	Total Recoverable	Water	6020A	371917
500-123791-1 MSD	G20S	Total Recoverable	Water	6020A	371917
500-123791-1 DU	G20S	Total Recoverable	Water	6020A	371917

Prep Batch: 372119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-2	G30S	Total/NA	Water	7470A	
500-123791-3	G45S	Total/NA	Water	7470A	
500-123791-4	G45S Dup	Total/NA	Water	7470A	
500-123791-5	R08S	Total/NA	Water	7470A	
MB 500-372119/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-372119/13-A	Lab Control Sample	Total/NA	Water	7470A	

Metals (Continued)

Analysis Batch: 372137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	7470A	371954
MB 500-371954/12-A	Method Blank	Total/NA	Water	7470A	371954
LCS 500-371954/13-A	Lab Control Sample	Total/NA	Water	7470A	371954

Analysis Batch: 372300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-2	G30S	Total Recoverable	Water	6020A	372095
500-123791-3	G45S	Total Recoverable	Water	6020A	372095
500-123791-4	G45S Dup	Total Recoverable	Water	6020A	372095
500-123791-5	R08S	Total Recoverable	Water	6020A	372095
MB 500-372095/1-A	Method Blank	Total Recoverable	Water	6020A	372095
LCS 500-372095/2-A	Lab Control Sample	Total Recoverable	Water	6020A	372095

Prep Batch: 372328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-6	T03S	Total/NA	Water	7470A	
500-123791-7	G48S	Total/NA	Water	7470A	
500-123791-8	G47S	Total/NA	Water	7470A	
MB 500-372328/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-372328/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-123791-8 MS	G47S	Total/NA	Water	7470A	
500-123791-8 MSD	G47S	Total/NA	Water	7470A	
500-123791-8 DU	G47S	Total/NA	Water	7470A	

Analysis Batch: 372337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-2	G30S	Total/NA	Water	7470A	372119
500-123791-3	G45S	Total/NA	Water	7470A	372119
500-123791-4	G45S Dup	Total/NA	Water	7470A	372119
500-123791-5	R08S	Total/NA	Water	7470A	372119
MB 500-372119/12-A	Method Blank	Total/NA	Water	7470A	372119
LCS 500-372119/13-A	Lab Control Sample	Total/NA	Water	7470A	372119

Prep Batch: 372464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-9	G46S	Total Recoverable	Water	3005A	
500-123791-10	G44S	Total Recoverable	Water	3005A	
500-123791-11	R32S	Total Recoverable	Water	3005A	
MB 500-372464/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-372464/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-123791-11 MS	R32S	Total Recoverable	Water	3005A	
500-123791-11 MSD	R32S	Total Recoverable	Water	3005A	
500-123791-11 DU	R32S	Total Recoverable	Water	3005A	

Analysis Batch: 372494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-2	G30S	Total Recoverable	Water	6020A	372095
500-123791-3	G45S	Total Recoverable	Water	6020A	372095
500-123791-4	G45S Dup	Total Recoverable	Water	6020A	372095
500-123791-5	R08S	Total Recoverable	Water	6020A	372095
MB 500-372095/1-A	Method Blank	Total Recoverable	Water	6020A	372095

Metals (Continued)

Analysis Batch: 372494 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-372095/2-A	Lab Control Sample	Total Recoverable	Water	6020A	372095

Prep Batch: 372528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-9	G46S	Total/NA	Water	7470A	
500-123791-10	G44S	Total/NA	Water	7470A	
500-123791-11	R32S	Total/NA	Water	7470A	
MB 500-372528/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-372528/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 372530

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-6	T03S	Total/NA	Water	7470A	372328
500-123791-7	G48S	Total/NA	Water	7470A	372328
500-123791-8	G47S	Total/NA	Water	7470A	372328
MB 500-372328/12-A	Method Blank	Total/NA	Water	7470A	372328
LCS 500-372328/13-A	Lab Control Sample	Total/NA	Water	7470A	372328
500-123791-8 MS	G47S	Total/NA	Water	7470A	372328
500-123791-8 MSD	G47S	Total/NA	Water	7470A	372328
500-123791-8 DU	G47S	Total/NA	Water	7470A	372328

Analysis Batch: 372576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-9	G46S	Total Recoverable	Water	6020A	372464
500-123791-10	G44S	Total Recoverable	Water	6020A	372464
500-123791-11	R32S	Total Recoverable	Water	6020A	372464
MB 500-372464/1-A	Method Blank	Total Recoverable	Water	6020A	372464
LCS 500-372464/2-A	Lab Control Sample	Total Recoverable	Water	6020A	372464
500-123791-11 MS	R32S	Total Recoverable	Water	6020A	372464
500-123791-11 MSD	R32S	Total Recoverable	Water	6020A	372464
500-123791-11 DU	R32S	Total Recoverable	Water	6020A	372464

Prep Batch: 372606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-6	T03S	Total Recoverable	Water	3005A	
500-123791-7	G48S	Total Recoverable	Water	3005A	
500-123791-8	G47S	Total Recoverable	Water	3005A	
MB 500-372606/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-372606/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 372785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-9	G46S	Total/NA	Water	7470A	372528
500-123791-10	G44S	Total/NA	Water	7470A	372528
500-123791-11	R32S	Total/NA	Water	7470A	372528
MB 500-372528/12-A	Method Blank	Total/NA	Water	7470A	372528
LCS 500-372528/13-A	Lab Control Sample	Total/NA	Water	7470A	372528

Analysis Batch: 372874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-2	G30S	Total Recoverable	Water	6010C	372095

Metals (Continued)

Analysis Batch: 372874 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-3	G45S	Total Recoverable	Water	6010C	372095
500-123791-4	G45S Dup	Total Recoverable	Water	6010C	372095
500-123791-5	R08S	Total Recoverable	Water	6010C	372095
500-123791-9	G46S	Total Recoverable	Water	6010C	372464
500-123791-10	G44S	Total Recoverable	Water	6010C	372464
500-123791-11	R32S	Total Recoverable	Water	6010C	372464
MB 500-372095/1-A	Method Blank	Total Recoverable	Water	6010C	372095
MB 500-372464/1-A	Method Blank	Total Recoverable	Water	6010C	372464
LCS 500-372095/2-A	Lab Control Sample	Total Recoverable	Water	6010C	372095
LCS 500-372464/2-A	Lab Control Sample	Total Recoverable	Water	6010C	372464
500-123791-11 MS	R32S	Total Recoverable	Water	6010C	372464
500-123791-11 MSD	R32S	Total Recoverable	Water	6010C	372464
500-123791-11 DU	R32S	Total Recoverable	Water	6010C	372464

Analysis Batch: 372890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-2	G30S	Total Recoverable	Water	6020A	372095
500-123791-3	G45S	Total Recoverable	Water	6020A	372095
500-123791-4	G45S Dup	Total Recoverable	Water	6020A	372095
500-123791-5	R08S	Total Recoverable	Water	6020A	372095
500-123791-6	T03S	Total Recoverable	Water	6020A	372606
500-123791-7	G48S	Total Recoverable	Water	6020A	372606
500-123791-8	G47S	Total Recoverable	Water	6020A	372606
500-123791-9	G46S	Total Recoverable	Water	6020A	372464
500-123791-10	G44S	Total Recoverable	Water	6020A	372464
500-123791-11	R32S	Total Recoverable	Water	6020A	372464
MB 500-372095/1-A	Method Blank	Total Recoverable	Water	6020A	372095
MB 500-372464/1-A	Method Blank	Total Recoverable	Water	6020A	372464
MB 500-372606/1-A	Method Blank	Total Recoverable	Water	6020A	372606
LCS 500-372095/2-A	Lab Control Sample	Total Recoverable	Water	6020A	372095
LCS 500-372464/2-A	Lab Control Sample	Total Recoverable	Water	6020A	372464
LCS 500-372606/2-A	Lab Control Sample	Total Recoverable	Water	6020A	372606
500-123791-11 MS	R32S	Total Recoverable	Water	6020A	372464
500-123791-11 MSD	R32S	Total Recoverable	Water	6020A	372464
500-123791-11 DU	R32S	Total Recoverable	Water	6020A	372464

Prep Batch: 372952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-6	T03S	Total Recoverable	Water	3005A	
500-123791-7	G48S	Total Recoverable	Water	3005A	
500-123791-8	G47S	Total Recoverable	Water	3005A	
MB 500-372952/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-372952/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 373200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-6	T03S	Total Recoverable	Water	6010C	372952
500-123791-7	G48S	Total Recoverable	Water	6010C	372952
500-123791-8	G47S	Total Recoverable	Water	6010C	372952
MB 500-372952/1-A	Method Blank	Total Recoverable	Water	6010C	372952
LCS 500-372952/2-A	Lab Control Sample	Total Recoverable	Water	6010C	372952

Analysis Batch: 373234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-6	T03S	Total Recoverable	Water	6020A	372606
500-123791-7	G48S	Total Recoverable	Water	6020A	372606
500-123791-8	G47S	Total Recoverable	Water	6020A	372606
MB 500-372606/1-A	Method Blank	Total Recoverable	Water	6020A	372606
LCS 500-372606/2-A	Lab Control Sample	Total Recoverable	Water	6020A	372606

General Chemistry

Analysis Batch: 372068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	SM 2540C	
500-123791-2	G30S	Total/NA	Water	SM 2540C	
500-123791-3	G45S	Total/NA	Water	SM 2540C	
500-123791-4	G45S Dup	Total/NA	Water	SM 2540C	
500-123791-5	R08S	Total/NA	Water	SM 2540C	
MB 500-372068/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-372068/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-123791-1 MS	G20S	Total/NA	Water	SM 2540C	
500-123791-1 DU	G20S	Total/NA	Water	SM 2540C	

Analysis Batch: 372279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-6	T03S	Total/NA	Water	SM 2540C	
500-123791-7	G48S	Total/NA	Water	SM 2540C	
500-123791-8	G47S	Total/NA	Water	SM 2540C	
MB 500-372279/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-372279/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-123791-6 DU	T03S	Total/NA	Water	SM 2540C	

Analysis Batch: 372439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	SM 4500 Cl- E	
500-123791-2	G30S	Total/NA	Water	SM 4500 Cl- E	
500-123791-3	G45S	Total/NA	Water	SM 4500 Cl- E	
500-123791-4	G45S Dup	Total/NA	Water	SM 4500 Cl- E	
500-123791-5	R08S	Total/NA	Water	SM 4500 Cl- E	
500-123791-6	T03S	Total/NA	Water	SM 4500 Cl- E	
500-123791-7	G48S	Total/NA	Water	SM 4500 Cl- E	
500-123791-8	G47S	Total/NA	Water	SM 4500 Cl- E	
MB 500-372439/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-372439/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-123791-8 MS	G47S	Total/NA	Water	SM 4500 Cl- E	
500-123791-8 MSD	G47S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 372446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-9	G46S	Total/NA	Water	SM 4500 Cl- E	
500-123791-10	G44S	Total/NA	Water	SM 4500 Cl- E	
500-123791-11	R32S	Total/NA	Water	SM 4500 Cl- E	
MB 500-372446/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-372446/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 372676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-9	G46S	Total/NA	Water	SM 2540C	
500-123791-10	G44S	Total/NA	Water	SM 2540C	
500-123791-11	R32S	Total/NA	Water	SM 2540C	
MB 500-372676/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-372676/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 373142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	SM 4500 F C	
500-123791-2	G30S	Total/NA	Water	SM 4500 F C	
500-123791-3	G45S	Total/NA	Water	SM 4500 F C	
500-123791-4	G45S Dup	Total/NA	Water	SM 4500 F C	
500-123791-5	R08S	Total/NA	Water	SM 4500 F C	
500-123791-6	T03S	Total/NA	Water	SM 4500 F C	
500-123791-7	G48S	Total/NA	Water	SM 4500 F C	
500-123791-8	G47S	Total/NA	Water	SM 4500 F C	
500-123791-9	G46S	Total/NA	Water	SM 4500 F C	
500-123791-10	G44S	Total/NA	Water	SM 4500 F C	
500-123791-11	R32S	Total/NA	Water	SM 4500 F C	
MB 500-373142/4	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-373142/5	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 373190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	SM 4500 SO4 E	
500-123791-2	G30S	Total/NA	Water	SM 4500 SO4 E	
500-123791-3	G45S	Total/NA	Water	SM 4500 SO4 E	
500-123791-4	G45S Dup	Total/NA	Water	SM 4500 SO4 E	
500-123791-5	R08S	Total/NA	Water	SM 4500 SO4 E	
500-123791-6	T03S	Total/NA	Water	SM 4500 SO4 E	
500-123791-7	G48S	Total/NA	Water	SM 4500 SO4 E	
500-123791-8	G47S	Total/NA	Water	SM 4500 SO4 E	
500-123791-9	G46S	Total/NA	Water	SM 4500 SO4 E	
500-123791-10	G44S	Total/NA	Water	SM 4500 SO4 E	
500-123791-11	R32S	Total/NA	Water	SM 4500 SO4 E	
MB 500-373190/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-373190/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 372970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	Field Sampling	
500-123791-2	G30S	Total/NA	Water	Field Sampling	
500-123791-3	G45S	Total/NA	Water	Field Sampling	
500-123791-4	G45S Dup	Total/NA	Water	Field Sampling	
500-123791-5	R08S	Total/NA	Water	Field Sampling	
500-123791-6	T03S	Total/NA	Water	Field Sampling	
500-123791-7	G48S	Total/NA	Water	Field Sampling	
500-123791-8	G47S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 372970 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-9	G46S	Total/NA	Water	Field Sampling	
500-123791-10	G44S	Total/NA	Water	Field Sampling	
500-123791-11	R32S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-371917/1-A
Matrix: Water
Analysis Batch: 372002

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		02/14/17 08:43	02/14/17 14:16	1

Lab Sample ID: LCS 500-371917/2-A
Matrix: Water
Analysis Batch: 372002

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.533		mg/L		107	80 - 120

Lab Sample ID: 500-123791-1 MS
Matrix: Water
Analysis Batch: 372002

Client Sample ID: G20S
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.040		0.500	0.601		mg/L		112	75 - 125

Lab Sample ID: 500-123791-1 MSD
Matrix: Water
Analysis Batch: 372002

Client Sample ID: G20S
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.040		0.500	0.590		mg/L		110	75 - 125	2	20

Lab Sample ID: 500-123791-1 DU
Matrix: Water
Analysis Batch: 372002

Client Sample ID: G20S
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.040		0.0421		mg/L		6	20

Lab Sample ID: MB 500-372095/1-A
Matrix: Water
Analysis Batch: 372874

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		02/15/17 08:16	02/21/17 04:45	1

Lab Sample ID: LCS 500-372095/2-A
Matrix: Water
Analysis Batch: 372874

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.528		mg/L		106	80 - 120

Lab Sample ID: MB 500-372464/1-A
Matrix: Water
Analysis Batch: 372874

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		02/17/17 08:10	02/21/17 03:45	1

Lab Sample ID: LCS 500-372464/2-A
Matrix: Water
Analysis Batch: 372874

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			0.500	0.523		mg/L		105	80 - 120		

Lab Sample ID: 500-123791-11 MS
Matrix: Water
Analysis Batch: 372874

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	0.064		0.500	0.571		mg/L		101	75 - 125		

Lab Sample ID: 500-123791-11 MSD
Matrix: Water
Analysis Batch: 372874

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.064		0.500	0.562		mg/L		100	75 - 125	2	20

Lab Sample ID: 500-123791-11 DU
Matrix: Water
Analysis Batch: 372874

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.064		0.0666		mg/L		4	20

Lab Sample ID: MB 500-372952/1-A
Matrix: Water
Analysis Batch: 373200

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372952

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		02/21/17 15:00	02/22/17 16:32	1

Lab Sample ID: LCS 500-372952/2-A
Matrix: Water
Analysis Batch: 373200

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372952

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			0.500	0.527		mg/L		105	80 - 120		

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-371917/1-A
Matrix: Water
Analysis Batch: 372104

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/14/17 08:43	02/14/17 16:08	1
Arsenic	<0.0010		0.0010		mg/L		02/14/17 08:43	02/14/17 16:08	1
Barium	<0.0025		0.0025		mg/L		02/14/17 08:43	02/14/17 16:08	1
Beryllium	<0.0010		0.0010		mg/L		02/14/17 08:43	02/14/17 16:08	1
Boron	<0.050		0.050		mg/L		02/14/17 08:43	02/14/17 16:08	1
Cadmium	<0.00050		0.00050		mg/L		02/14/17 08:43	02/14/17 16:08	1
Calcium	<0.20		0.20		mg/L		02/14/17 08:43	02/14/17 16:08	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-371917/1-A
Matrix: Water
Analysis Batch: 372104

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	<0.0050		0.0050		mg/L		02/14/17 08:43	02/14/17 16:08	1
Cobalt	<0.0010		0.0010		mg/L		02/14/17 08:43	02/14/17 16:08	1
Lead	<0.00050		0.00050		mg/L		02/14/17 08:43	02/14/17 16:08	1
Molybdenum	<0.0050		0.0050		mg/L		02/14/17 08:43	02/14/17 16:08	1
Selenium	<0.0025		0.0025		mg/L		02/14/17 08:43	02/14/17 16:08	1
Thallium	<0.0020		0.0020		mg/L		02/14/17 08:43	02/14/17 16:08	1

Lab Sample ID: LCS 500-371917/2-A
Matrix: Water
Analysis Batch: 372104

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.500		mg/L		100	80 - 120
Arsenic	0.100	0.0979		mg/L		98	80 - 120
Barium	2.00	1.99		mg/L		100	80 - 120
Beryllium	0.0500	0.0490		mg/L		98	80 - 120
Boron	1.00	0.982		mg/L		98	80 - 120
Cadmium	0.0500	0.0505		mg/L		101	80 - 120
Calcium	10.0	9.68		mg/L		97	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.506		mg/L		101	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Molybdenum	1.00	0.946		mg/L		95	80 - 120
Selenium	0.100	0.0991		mg/L		99	80 - 120
Thallium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: 500-123791-1 MS
Matrix: Water
Analysis Batch: 372104

Client Sample ID: G20S
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.528		mg/L		106	75 - 125
Arsenic	<0.0010		0.100	0.103		mg/L		103	75 - 125
Barium	0.046		2.00	2.12		mg/L		103	75 - 125
Beryllium	<0.0010		0.0500	0.0486		mg/L		97	75 - 125
Boron	1.2		1.00	2.27		mg/L		111	75 - 125
Cadmium	<0.00050		0.0500	0.0512		mg/L		102	75 - 125
Calcium	54		10.0	67.1	4	mg/L		132	75 - 125
Chromium	<0.0050		0.200	0.206		mg/L		103	75 - 125
Cobalt	<0.0010		0.500	0.506		mg/L		101	75 - 125
Lead	<0.00050		0.100	0.105		mg/L		105	75 - 125
Molybdenum	0.018		1.00	1.01		mg/L		99	75 - 125
Selenium	<0.0025		0.100	0.104		mg/L		104	75 - 125
Thallium	<0.0020		0.100	0.106		mg/L		106	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-123791-1 MSD
Matrix: Water
Analysis Batch: 372104

Client Sample ID: G20S
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.527		mg/L		105	75 - 125	0	20
Arsenic	<0.0010		0.100	0.103		mg/L		103	75 - 125	0	20
Barium	0.046		2.00	2.07		mg/L		101	75 - 125	2	20
Beryllium	<0.0010		0.0500	0.0491		mg/L		98	75 - 125	1	20
Boron	1.2		1.00	2.25		mg/L		109	75 - 125	1	20
Cadmium	<0.00050		0.0500	0.0521		mg/L		104	75 - 125	2	20
Calcium	54		10.0	65.7	4	mg/L		118	75 - 125	2	20
Chromium	<0.0050		0.200	0.199		mg/L		100	75 - 125	3	20
Cobalt	<0.0010		0.500	0.487		mg/L		97	75 - 125	4	20
Lead	<0.00050		0.100	0.103		mg/L		103	75 - 125	2	20
Molybdenum	0.018		1.00	1.01		mg/L		99	75 - 125	0	20
Selenium	<0.0025		0.100	0.103		mg/L		103	75 - 125	1	20
Thallium	<0.0020		0.100	0.103		mg/L		103	75 - 125	2	20

Lab Sample ID: 500-123791-1 DU
Matrix: Water
Analysis Batch: 372104

Client Sample ID: G20S
Prep Type: Total Recoverable
Prep Batch: 371917

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	<0.0010		<0.0010		mg/L		NC	20
Barium	0.046		0.0485		mg/L		5	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Boron	1.2		1.28		mg/L		10	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	54		57.8		mg/L		7	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.018		0.0195		mg/L		8	20
Selenium	<0.0025		<0.0025		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: MB 500-372095/1-A
Matrix: Water
Analysis Batch: 372300

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/15/17 08:16	02/15/17 13:12	1
Cadmium	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 13:12	1
Calcium	<0.20		0.20		mg/L		02/15/17 08:16	02/15/17 13:12	1
Chromium	<0.0050		0.0050		mg/L		02/15/17 08:16	02/15/17 13:12	1
Cobalt	<0.0010		0.0010		mg/L		02/15/17 08:16	02/15/17 13:12	1
Lead	<0.00050		0.00050		mg/L		02/15/17 08:16	02/15/17 13:12	1
Selenium	<0.0025		0.0025		mg/L		02/15/17 08:16	02/15/17 13:12	1
Thallium	<0.0020		0.0020		mg/L		02/15/17 08:16	02/15/17 13:12	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-372095/1-A
Matrix: Water
Analysis Batch: 372494

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		02/15/17 08:16	02/16/17 11:42	1
Beryllium	<0.0010		0.0010		mg/L		02/15/17 08:16	02/16/17 11:42	1
Molybdenum	<0.0050		0.0050		mg/L		02/15/17 08:16	02/16/17 11:42	1

Lab Sample ID: MB 500-372095/1-A
Matrix: Water
Analysis Batch: 372890

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		02/15/17 08:16	02/20/17 20:37	1
Boron	<0.050		0.050		mg/L		02/15/17 08:16	02/20/17 20:37	1

Lab Sample ID: LCS 500-372095/2-A
Matrix: Water
Analysis Batch: 372300

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.542		mg/L		108	80 - 120
Cadmium	0.0500	0.0553		mg/L		111	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Chromium	0.200	0.221		mg/L		111	80 - 120
Cobalt	0.500	0.553		mg/L		111	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Selenium	0.100	0.111		mg/L		111	80 - 120
Thallium	0.100	0.110		mg/L		110	80 - 120

Lab Sample ID: LCS 500-372095/2-A
Matrix: Water
Analysis Batch: 372494

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.105		mg/L		105	80 - 120
Beryllium	0.0500	0.0530		mg/L		106	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: LCS 500-372095/2-A
Matrix: Water
Analysis Batch: 372890

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372095

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.12		mg/L		106	80 - 120
Boron	1.00	1.02		mg/L		102	80 - 120

Lab Sample ID: MB 500-372464/1-A
Matrix: Water
Analysis Batch: 372576

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/17/17 08:10	02/17/17 15:23	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-372464/1-A
Matrix: Water
Analysis Batch: 372576

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:23	1
Barium	<0.0025		0.0025		mg/L		02/17/17 08:10	02/17/17 15:23	1
Beryllium	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:23	1
Cadmium	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:23	1
Calcium	<0.20		0.20		mg/L		02/17/17 08:10	02/17/17 15:23	1
Chromium	<0.0050		0.0050		mg/L		02/17/17 08:10	02/17/17 15:23	1
Cobalt	<0.0010		0.0010		mg/L		02/17/17 08:10	02/17/17 15:23	1
Lead	<0.00050		0.00050		mg/L		02/17/17 08:10	02/17/17 15:23	1
Molybdenum	<0.0050		0.0050		mg/L		02/17/17 08:10	02/17/17 15:23	1
Selenium	<0.0025		0.0025		mg/L		02/17/17 08:10	02/17/17 15:23	1
Thallium	<0.0020		0.0020		mg/L		02/17/17 08:10	02/17/17 15:23	1

Lab Sample ID: MB 500-372464/1-A
Matrix: Water
Analysis Batch: 372890

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		02/17/17 08:10	02/20/17 19:52	1

Lab Sample ID: LCS 500-372464/2-A
Matrix: Water
Analysis Batch: 372576

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.522		mg/L		104	80 - 120
Arsenic	0.100	0.104		mg/L		104	80 - 120
Barium	2.00	2.08		mg/L		104	80 - 120
Beryllium	0.0500	0.0501		mg/L		100	80 - 120
Cadmium	0.0500	0.0525		mg/L		105	80 - 120
Calcium	10.0	9.43		mg/L		94	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.500	0.510		mg/L		102	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Molybdenum	1.00	0.956		mg/L		96	80 - 120
Selenium	0.100	0.104		mg/L		104	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LCS 500-372464/2-A
Matrix: Water
Analysis Batch: 372890

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.02		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-123791-11 MS
Matrix: Water
Analysis Batch: 372576

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.520		mg/L		104	75 - 125
Arsenic	0.0020		0.100	0.105		mg/L		103	75 - 125
Barium	0.039		2.00	2.02		mg/L		99	75 - 125
Beryllium	<0.0010		0.0500	0.0516		mg/L		103	75 - 125
Cadmium	<0.00050		0.0500	0.0497		mg/L		99	75 - 125
Calcium	120		10.0	122	4	mg/L		23	75 - 125
Chromium	<0.0050		0.200	0.193		mg/L		96	75 - 125
Cobalt	<0.0010		0.500	0.479		mg/L		96	75 - 125
Lead	<0.00050		0.100	0.0966		mg/L		97	75 - 125
Molybdenum	0.57		1.00	1.47		mg/L		90	75 - 125
Selenium	<0.0025	F1	0.100	0.0698	F1	mg/L		69	75 - 125
Thallium	<0.0020		0.100	0.0964		mg/L		96	75 - 125

Lab Sample ID: 500-123791-11 MS
Matrix: Water
Analysis Batch: 372890

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	4.0	F1	1.00	4.61	F1	mg/L		64	75 - 125

Lab Sample ID: 500-123791-11 MSD
Matrix: Water
Analysis Batch: 372576

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.513		mg/L		103	75 - 125	1	20
Arsenic	0.0020		0.100	0.104		mg/L		102	75 - 125	1	20
Barium	0.039		2.00	2.01		mg/L		98	75 - 125	0	20
Beryllium	<0.0010		0.0500	0.0483		mg/L		97	75 - 125	7	20
Cadmium	<0.00050		0.0500	0.0496		mg/L		99	75 - 125	0	20
Calcium	120		10.0	117	4	mg/L		-31	75 - 125	5	20
Chromium	<0.0050		0.200	0.188		mg/L		94	75 - 125	3	20
Cobalt	<0.0010		0.500	0.461		mg/L		92	75 - 125	4	20
Lead	<0.00050		0.100	0.0955		mg/L		95	75 - 125	1	20
Molybdenum	0.57		1.00	1.47		mg/L		89	75 - 125	0	20
Selenium	<0.0025	F1	0.100	0.0696	F1	mg/L		69	75 - 125	0	20
Thallium	<0.0020		0.100	0.0956		mg/L		96	75 - 125	1	20

Lab Sample ID: 500-123791-11 MSD
Matrix: Water
Analysis Batch: 372890

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	4.0	F1	1.00	4.41	F1	mg/L		43	75 - 125	4	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-123791-11 DU
Matrix: Water
Analysis Batch: 372576

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.0020		0.00201		mg/L		2	20
Barium	0.039		0.0387		mg/L		0.7	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	120		120		mg/L		0.1	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.57		0.579		mg/L		1	20
Selenium	<0.0025	F1	<0.0025		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-123791-11 DU
Matrix: Water
Analysis Batch: 372890

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 372464

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	4.0	F1	4.02		mg/L		1	20

Lab Sample ID: MB 500-372606/1-A
Matrix: Water
Analysis Batch: 372890

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372606

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		02/18/17 10:19	02/20/17 21:48	1
Arsenic	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 21:48	1
Barium	<0.0025		0.0025		mg/L		02/18/17 10:19	02/20/17 21:48	1
Beryllium	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 21:48	1
Cadmium	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 21:48	1
Chromium	<0.0050		0.0050		mg/L		02/18/17 10:19	02/20/17 21:48	1
Cobalt	<0.0010		0.0010		mg/L		02/18/17 10:19	02/20/17 21:48	1
Lead	<0.00050		0.00050		mg/L		02/18/17 10:19	02/20/17 21:48	1
Molybdenum	<0.0050		0.0050		mg/L		02/18/17 10:19	02/20/17 21:48	1
Selenium	<0.0025		0.0025		mg/L		02/18/17 10:19	02/20/17 21:48	1
Thallium	<0.0020		0.0020		mg/L		02/18/17 10:19	02/20/17 21:48	1

Lab Sample ID: MB 500-372606/1-A
Matrix: Water
Analysis Batch: 373234

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 372606

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		02/18/17 10:19	02/22/17 16:56	1
Calcium	<0.20		0.20		mg/L		02/18/17 10:19	02/22/17 16:56	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-372606/2-A
Matrix: Water
Analysis Batch: 372890

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.494		mg/L		99	80 - 120
Arsenic	0.100	0.0974		mg/L		97	80 - 120
Barium	0.500	0.508		mg/L		102	80 - 120
Beryllium	0.0500	0.0533		mg/L		107	80 - 120
Cadmium	0.0500	0.0507		mg/L		101	80 - 120
Chromium	0.200	0.207		mg/L		103	80 - 120
Cobalt	0.500	0.521		mg/L		104	80 - 120
Lead	0.100	0.0998		mg/L		100	80 - 120
Molybdenum	1.00	0.979		mg/L		98	80 - 120
Selenium	0.100	0.0983		mg/L		98	80 - 120
Thallium	0.100	0.0998		mg/L		100	80 - 120

Lab Sample ID: LCS 500-372606/2-A
Matrix: Water
Analysis Batch: 373234

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 372606

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.996		mg/L		100	80 - 120
Calcium	10.0	9.49		mg/L		95	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-371954/12-A
Matrix: Water
Analysis Batch: 372137

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 371954

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/14/17 13:00	02/15/17 09:27	1

Lab Sample ID: LCS 500-371954/13-A
Matrix: Water
Analysis Batch: 372137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 371954

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00198		mg/L		99	80 - 120

Lab Sample ID: MB 500-372119/12-A
Matrix: Water
Analysis Batch: 372337

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 372119

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/15/17 13:00	02/16/17 08:27	1

Lab Sample ID: LCS 500-372119/13-A
Matrix: Water
Analysis Batch: 372337

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 372119

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00216		mg/L		108	80 - 120

Lab Sample ID: MB 500-372328/12-A
Matrix: Water
Analysis Batch: 372530

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 372328

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/16/17 12:45	02/17/17 08:56	1

Lab Sample ID: LCS 500-372328/13-A
Matrix: Water
Analysis Batch: 372530

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 372328

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00211		mg/L		105	80 - 120

Lab Sample ID: 500-123791-8 MS
Matrix: Water
Analysis Batch: 372530

Client Sample ID: G47S
Prep Type: Total/NA
Prep Batch: 372328

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.000984		mg/L		98	75 - 125

Lab Sample ID: 500-123791-8 MSD
Matrix: Water
Analysis Batch: 372530

Client Sample ID: G47S
Prep Type: Total/NA
Prep Batch: 372328

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000916		mg/L		92	75 - 125	7	20

Lab Sample ID: 500-123791-8 DU
Matrix: Water
Analysis Batch: 372530

Client Sample ID: G47S
Prep Type: Total/NA
Prep Batch: 372328

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Lab Sample ID: MB 500-372528/12-A
Matrix: Water
Analysis Batch: 372785

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 372528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		02/17/17 13:30	02/20/17 11:10	1

Lab Sample ID: LCS 500-372528/13-A
Matrix: Water
Analysis Batch: 372785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 372528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00177		mg/L		88	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-372068/1
Matrix: Water
Analysis Batch: 372068

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/14/17 23:43	1

Lab Sample ID: LCS 500-372068/2
Matrix: Water
Analysis Batch: 372068

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	294		mg/L		118	80 - 120

Lab Sample ID: 500-123791-1 MS
Matrix: Water
Analysis Batch: 372068

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	400		250	706		mg/L		123	75 - 125

Lab Sample ID: 500-123791-1 DU
Matrix: Water
Analysis Batch: 372068

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	400		408		mg/L		2	5

Lab Sample ID: MB 500-372279/1
Matrix: Water
Analysis Batch: 372279

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/16/17 06:09	1

Lab Sample ID: LCS 500-372279/2
Matrix: Water
Analysis Batch: 372279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	290		mg/L		116	80 - 120

Lab Sample ID: 500-123791-6 DU
Matrix: Water
Analysis Batch: 372279

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	810		838		mg/L		4	5

Lab Sample ID: MB 500-372676/1
Matrix: Water
Analysis Batch: 372676

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			02/20/17 03:50	1

Lab Sample ID: LCS 500-372676/2
Matrix: Water
Analysis Batch: 372676

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	292		mg/L		117	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-372439/12
Matrix: Water
Analysis Batch: 372439

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			02/16/17 21:22	1

Lab Sample ID: LCS 500-372439/13
Matrix: Water
Analysis Batch: 372439

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.3		mg/L		103	80 - 120

Lab Sample ID: 500-123791-8 MS
Matrix: Water
Analysis Batch: 372439

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	160		50.0	194		mg/L		77	75 - 125

Lab Sample ID: 500-123791-8 MSD
Matrix: Water
Analysis Batch: 372439

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	160		50.0	199		mg/L		87	75 - 125	3	20

Lab Sample ID: MB 500-372446/4
Matrix: Water
Analysis Batch: 372446

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			02/16/17 23:48	1

Lab Sample ID: LCS 500-372446/5
Matrix: Water
Analysis Batch: 372446

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.0		mg/L		100	80 - 120

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-373142/4
Matrix: Water
Analysis Batch: 373142

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			02/22/17 13:14	1

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-373142/5
Matrix: Water
Analysis Batch: 373142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	9.74		mg/L		97	80 - 120

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-373190/3
Matrix: Water
Analysis Batch: 373190

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			02/23/17 03:27	1

Lab Sample ID: LCS 500-373190/4
Matrix: Water
Analysis Batch: 373190

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	18.7		mg/L		93	80 - 120

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-123791 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 38

Client	Client Project #	Preservative	3	3	8							Preservative Key
Midwest Generation	EME LLC											1. HCL, Cool to 4°
Project Name		Parameter										2. H2SO4, Cool to 4°
Joliet CCR #9			Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							3. HNO3, Cool to 4°
Project Location/State	Lab Project #											4. NaOH, Cool to 4°
Westmont, IL.												5. NaOH/Zn, Cool to 4°
Sampler	Lab PM											6. NaHSO4
Nic L, Andrew N.	Erin Lang											7. Cool to 4°
												8. None
												9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix								Comments
1		G205	02/13/17	1020	4	W	—	—	—					

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	02/13/17	1605	Sherri Scott	TA-CHI	2/14/17	0705
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 4.7, 5.9

Client: Midwest Generation
Client Project #: EME LLC
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Nick L., Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4. Cool to 4°
4°
4°
to 4°

500-123791 COC

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
2		G30S	02/14/17	0933	5	W		1	1	1							
3		G45S	02/14/17	1216	5	W		1	1	1							
4		G45S DUP	02/14/17	1216	5	W		1	1	1							
5		R08S	02/14/17	1400	5	W		1	1	1							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DJ	TAL	02/14/17	1540	David Sawalla	TALML	02/14/17	1540
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 4.6

Client	Client Project #	Preservative	3	3	8							Preservative Key
Midwest Generation EME LLC												
Project Name: Joliet #9 CCR		Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							500-123791 COC
Project Location/State: Westmont, IL.	Lab Project #											
Sampler: Nac L, Andrew M.	Lab PM: Eric Lang											

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix								Comments
6		TO3 S	02/15/17	0944	5	W	—	—	—					
7		G48S	02/15/17	1215	5	W	—	—	—					
8		G47S	02/15/17	1435	5	W	—	—	—					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	02/15/17	1642	[signature]	TALH	02/15/17	1642
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791/

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 5.8

Client	Client Project #
Midwest Generation	EME LLC
Project Name	
Joliet #9 CCR	
Project Location/State	**Lab Project #**
Westmont, IL	
Sampler	**Lab PM**
Noe L., Andrew N.	Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
9		G46S	02/16/17	0940	5	W		✓	✓	✓						
10		G44S	02/16/17	1327	5	W		—	—	—						
11		R32S	02/16/17	1522	5	W		—	—	—						

Preservative Key
1 HCl, Cool to 4°
2 [illegible] to 4°
3 [illegible] to 4°
4 [illegible] to 4°
5 [illegible]ol to 4°

500-123791 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	02/16/17	1635	[illegible]	TALTA	02/16/17	1635
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-123791-1

Login Number: 123791
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8, 4.7, 5.9, 4.6,5.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-1

Client Sample ID: G20S

Date Collected: 02/13/17 10:20
Date Received: 02/13/17 16:05

Lab Sample ID: 500-123791-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			371917	02/14/17 08:43	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	372002	02/14/17 14:29	PJ1	TAL CHI
Total Recoverable	Prep	3005A			371917	02/14/17 08:43	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372104	02/14/17 17:45	FXG	TAL CHI
Total/NA	Prep	7470A			371954	02/14/17 13:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372137	02/15/17 10:08	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372068	02/14/17 23:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	372439	02/16/17 21:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 13:47	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	373190		CLB	TAL CHI
					(Start)	02/23/17 03:35		
					(End)	02/23/17 03:36		
Total/NA	Analysis	Field Sampling		1	372970	02/13/17 10:20	JVB	TAL CHI

Client Sample ID: G30S

Date Collected: 02/14/17 09:53
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	372874	02/21/17 04:59	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372300	02/15/17 14:42	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372494	02/16/17 13:08	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	372890	02/20/17 20:44	PFK	TAL CHI
Total/NA	Prep	7470A			372119	02/15/17 13:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372337	02/16/17 08:37	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372068	02/14/17 23:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372439	02/16/17 22:00	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 13:49	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	373190		CLB	TAL CHI
					(Start)	02/23/17 03:36		
					(End)	02/23/17 03:37		
Total/NA	Analysis	Field Sampling		1	372970	02/14/17 09:53	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-123791-3

Date Collected: 02/14/17 12:16

Matrix: Water

Date Received: 02/14/17 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	372874	02/21/17 05:04	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372300	02/15/17 14:45	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372494	02/16/17 12:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372890	02/20/17 20:48	PFK	TAL CHI
Total/NA	Prep	7470A			372119	02/15/17 13:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372337	02/16/17 08:39	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372068	02/15/17 00:01	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372439	02/16/17 22:01	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 13:51	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	373190		CLB	TAL CHI
					(Start)	02/23/17 03:39		
					(End)	02/23/17 03:40		
Total/NA	Analysis	Field Sampling		1	372970	02/14/17 12:16	JVB	TAL CHI

Client Sample ID: G45S Dup

Lab Sample ID: 500-123791-4

Date Collected: 02/14/17 12:16

Matrix: Water

Date Received: 02/14/17 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	372874	02/21/17 05:08	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372300	02/15/17 14:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372494	02/16/17 12:50	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372890	02/20/17 20:52	PFK	TAL CHI
Total/NA	Prep	7470A			372119	02/15/17 13:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372337	02/16/17 08:40	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372068	02/15/17 00:03	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372439	02/16/17 22:02	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 13:54	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	373190		CLB	TAL CHI
					(Start)	02/23/17 03:40		
					(End)	02/23/17 03:41		
Total/NA	Analysis	Field Sampling		1	372970	02/14/17 12:16	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-1

Client Sample ID: R08S

Date Collected: 02/14/17 14:00
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	372874	02/21/17 05:11	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372300	02/15/17 14:53	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372494	02/16/17 13:12	FXG	TAL CHI
Total Recoverable	Prep	3005A			372095	02/15/17 08:16	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	372890	02/20/17 20:56	PFK	TAL CHI
Total/NA	Prep	7470A			372119	02/15/17 13:00	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372337	02/16/17 08:42	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372068	02/15/17 00:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372439	02/16/17 22:03	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 13:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	373190		CLB	TAL CHI
					(Start)	02/23/17 03:41		
					(End)	02/23/17 03:42		
Total/NA	Analysis	Field Sampling		1	372970	02/14/17 14:00	JVB	TAL CHI

Client Sample ID: T03S

Date Collected: 02/15/17 09:44
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372952	02/21/17 15:00	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	373200	02/22/17 16:46	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372606	02/18/17 10:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	372890	02/20/17 22:45	PFK	TAL CHI
Total Recoverable	Prep	3005A			372606	02/18/17 10:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	373234	02/22/17 17:03	FXG	TAL CHI
Total/NA	Prep	7470A			372328	02/16/17 12:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372530	02/17/17 09:11	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372279	02/16/17 06:14	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372439	02/16/17 22:03	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 13:59	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	373190		CLB	TAL CHI
					(Start)	02/23/17 03:42		
					(End)	02/23/17 03:43		
Total/NA	Analysis	Field Sampling		1	372970	02/15/17 09:44	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-1

Client Sample ID: G48S

Lab Sample ID: 500-123791-7

Date Collected: 02/15/17 12:15
Matrix: Water
Date Received: 02/15/17 16:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372952	02/21/17 15:00	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	373200	02/22/17 16:50	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372606	02/18/17 10:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	372890	02/20/17 22:56	PFK	TAL CHI
Total Recoverable	Prep	3005A			372606	02/18/17 10:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		20	373234	02/22/17 17:07	FXG	TAL CHI
Total/NA	Prep	7470A			372328	02/16/17 12:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372530	02/17/17 09:12	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372279	02/16/17 06:19	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372439	02/16/17 22:04	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 14:02	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	373190		CLB	TAL CHI
					(Start)	02/23/17 03:43		
					(End)	02/23/17 03:44		
Total/NA	Analysis	Field Sampling		1	372970	02/15/17 12:15	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-123791-8

Date Collected: 02/15/17 14:35
Matrix: Water
Date Received: 02/15/17 16:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372952	02/21/17 15:00	JNH	TAL CHI
Total Recoverable	Analysis	6010C		1	373200	02/22/17 16:55	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372606	02/18/17 10:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		1	372890	02/20/17 23:00	PFK	TAL CHI
Total Recoverable	Prep	3005A			372606	02/18/17 10:19	JNH	TAL CHI
Total Recoverable	Analysis	6020A		20	373234	02/22/17 17:11	FXG	TAL CHI
Total/NA	Prep	7470A			372328	02/16/17 12:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372530	02/17/17 09:14	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372279	02/16/17 06:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372439	02/16/17 22:04	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 14:04	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	373190		CLB	TAL CHI
					(Start)	02/23/17 03:44		
					(End)	02/23/17 03:45		
Total/NA	Analysis	Field Sampling		1	372970	02/15/17 14:35	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-123791-9

Date Collected: 02/16/17 09:40
Matrix: Water
Date Received: 02/16/17 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-1

Client Sample ID: G46S

Lab Sample ID: 500-123791-9

Date Collected: 02/16/17 09:40
Date Received: 02/16/17 16:35

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6010C		1	372874	02/21/17 03:52	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372576	02/17/17 15:35	FXG	TAL CHI
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	372890	02/20/17 19:59	PFK	TAL CHI
Total/NA	Prep	7470A			372528	02/17/17 13:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372785	02/20/17 11:17	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372676	02/20/17 04:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372446	02/17/17 00:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 14:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	373190		CLB	TAL CHI
					(Start)	02/23/17 03:45		
					(End)	02/23/17 03:46		
Total/NA	Analysis	Field Sampling		1	372970	02/16/17 09:40	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-123791-10

Date Collected: 02/16/17 13:27
Date Received: 02/16/17 16:35

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	372874	02/21/17 03:56	PJ1	TAL CHI
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372576	02/17/17 15:38	FXG	TAL CHI
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372890	02/20/17 20:03	PFK	TAL CHI
Total/NA	Prep	7470A			372528	02/17/17 13:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372785	02/20/17 11:18	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372676	02/20/17 04:45	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	372446	02/16/17 23:51	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 14:18	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	373190		CLB	TAL CHI
					(Start)	02/23/17 03:46		
					(End)	02/23/17 03:47		
Total/NA	Analysis	Field Sampling		1	372970	02/16/17 13:27	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-123791-11

Date Collected: 02/16/17 15:22
Date Received: 02/16/17 16:35

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	372874	02/21/17 03:59	PJ1	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	372576	02/17/17 15:42	FXG	TAL CHI
Total Recoverable	Prep	3005A			372464	02/17/17 08:10	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	372890	02/20/17 20:07	PFK	TAL CHI
Total/NA	Prep	7470A			372528	02/17/17 13:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	372785	02/20/17 11:19	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	372676	02/20/17 04:48	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	372446	02/17/17 00:22	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	373142	02/22/17 14:20	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	373190		CLB	TAL CHI
					(Start)	02/23/17 03:47		
					(End)	02/23/17 03:48		
Total/NA	Analysis	Field Sampling		1	372970	02/16/17 15:22	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/13/17 Start Purge: 1000 (2400 Hr. Clock) End Purge: 1020

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.78 (ft)

Ref. Measuring Pt. TIC

Well Elevation *580.33 (ft./msl)

Water Level 52.41 (ft.)

Ground Water Elev. 527.92 (ft./msl)

Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.27	7.30	7.30	(std.)
SC	622	621	621	(umhos/cm)
Temp.	10.03	10.25	10.25	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 39°F, Sunny, SW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 52.41 - 2.78 = 49.63 (ft.)

Levels were taken on 02/13/17 @ 0945.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/14/17 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0933

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.31 (ft)

Ref. Measuring Pt. TIC

Well Elevation *524.40 (ft./msl)

Water Level 2.13 (ft.)

Ground Water Elev. 522.27 (ft./msl)

Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.12	7.70	7.70	(std.)
SC	1,510	1,510	1,510	(umhos/cm)
Temp.	7.88	8.00	8.00	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 40° F, Partly Cloudy, W winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 2.13 - 2.31 = -0.18 (ft)

Levels were taken on 02/14/17 @ 0905.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791.3

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/14/17 Start Purge: 1200 (2400 Hr. Clock) End Purge: 1216

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.83

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 65.34 (ft.)
Ground Water Elev. 537.97 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.36	7.36	7.34	(std.)
SC	914	905	905	(umhos/cm)
Temp.	12.88	12.83	12.83	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 49°F, Fair, W winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 65.34 - 2.97 = 62.37 (ft.)
Levels were taken on 02/14/17 @ 1145.

Sampler Name (Print): Nic Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S Dup
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 2.97 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *603.31 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *471.05 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @

X DUP of G45S

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/14/17 Start Purge: 1345 (2400 Hr. Clock) End Purge: 1400

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 69.28 (ft.)
Ground Water Elev. 509.37 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.60	7.60	7.60	(std.)
SC	1510	1520	1520	(umhos/cm)
Temp.	12.21	12.22	12.22	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 50°F, Sunny, W winds @ 10-15 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 69.28 − 2.55 = 66.73 (ft.)
Levels were taken on 02/14/17 @ 1335.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/15/17 Start Purge: 0930 (2400 Hr. Clock) End Purge: 0944

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.65 (ft./msl)
Water Level 134.92 (ft.)
Ground Water Elev. 494.73 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.36	7.36	(std.)
SC	1184	1180	1180	(umhos/cm)
Temp.	6.92	7.21	7.27	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 31°F, Fair, NW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 134.92 - 3.08 = 131.84 (ft.)
Levels were taken on 02/15/17 @ 0920.
* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-7

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/15/17 Start Purge: 1155 (2400 Hr. Clock) End Purge: 1215

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.45 (ft)

Ref. Measuring Pt. TIC

Well Elevation *620.77 (ft./msl)

Water Level 103.05 (ft.)

Ground Water Elev. 517.72 (ft./msl)

Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.62	9.63	9.63	(std.)
SC	1520	1530	1530	(umhos/cm)
Temp.	8.82	8.75	8.75	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor

Weather Conditions: 34°F, Partly Cloudy, NW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 103.05 - 2.45 = 100.60 (ft.)

Levels were taken on 02/15/17 @ 1150.

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-8

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/15/17 Start Purge: 1415 (2400 Hr. Clock) End Purge: 1435

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 96.41 (ft.)
Ground Water Elev. 515.91 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.24	9.26	9.26	(std.)
SC	1296	1295	1295	(umhos/cm)
Temp.	9.64	9.86	9.86	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 38°F, Partly Cloudy, NW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 96.41 - 2.50 = 93.91 (ft.)
Levels were taken on 02/15/17 @ 1410

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/16/17 Start Purge: 0920 (2400 Hr. Clock) End Purge: 0940

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 98.14 (ft.)

Ground Water Elev. 503.18 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.95	7.94	7.94	(std.)
SC	1,376	1,370	1,370	(umhos/cm)
Temp.	8.76	8.85	8.85	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 34°F, Mostly Cloudy, SE winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 98.14 - 2.70 = 95.44 (ft.)

Levels were taken on 02/16/17 @ 0910.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-10

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/16/17 Start Purge: 1313 (2400 Hr. Clock) End Purge: 1327

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.18 (ft)

Ref. Measuring Pt. TIC

Well Elevation *586.69 (ft./msl)

Water Level 84.34 (ft.)

Ground Water Elev. 502.35 (ft./msl)

Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.41	7.38	7.38	(std.)
SC	876	867	867	(umhos/cm)
Temp.	10.14	10.26	10.26	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 42°F, Mostly Cloudy, SE winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 84.34 - 2.18 = 82.16 (ft.)

Levels were taken on 02/16/17 @ 1305.

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-123791-11

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 02/16/17 Start Purge: 1503 (2400 Hr. Clock) End Purge: 1522

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.03 (ft)

Ref. Measuring Pt. TIC

Well Elevation *536.81 (ft./msl)

Water Level 21.12 (ft.)

Ground Water Elev. 515.69 (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.39	7.39	(std.)
SC	753	733	733	(umhos/cm)
Temp.	11.20	11.19	11.19	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 45 °F, Partly Cloudy, SE winds 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 21.12 - 2.03 = 19.09 (ft.)

Levels were taken on 02/16/17 @ 1455.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-123791-2
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
3/15/2017 4:03:03 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-123791-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-123791-2

Comments
No additional comments.

Receipt
The samples were received on 2/13/2017 4:05 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 3.8º C, 4.6º C, 4.7º C, 5.8º C and 5.9º C.

RAD
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-123791-1	G20S	Water	02/13/17 10:20	02/13/17 16:05
500-123791-2	G30S	Water	02/14/17 09:53	02/14/17 15:40
500-123791-3	G45S	Water	02/14/17 12:16	02/14/17 15:40
500-123791-4	G45S Dup	Water	02/14/17 12:16	02/14/17 15:40
500-123791-5	R08S	Water	02/14/17 14:00	02/14/17 15:40
500-123791-6	T03S	Water	02/15/17 09:44	02/15/17 16:42
500-123791-7	G48S	Water	02/15/17 12:15	02/15/17 16:42
500-123791-8	G47S	Water	02/15/17 14:35	02/15/17 16:42
500-123791-9	G46S	Water	02/16/17 09:40	02/16/17 16:35
500-123791-10	G44S	Water	02/16/17 13:27	02/16/17 16:35
500-123791-11	R32S	Water	02/16/17 15:22	02/16/17 16:35

Client Sample ID: G20S

Date Collected: 02/13/17 10:20
Date Received: 02/13/17 16:05

Lab Sample ID: 500-123791-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.09		0.206	0.228	1.00	0.126	pCi/L	02/21/17 10:08	03/15/17 05:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:14*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.35		0.315	0.338	1.00	0.366	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*81.5*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.44		0.376	0.408	5.00	0.366	pCi/L		03/15/17 12:12	1

Client Sample ID: G30S

Date Collected: 02/14/17 09:53
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-2

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.590		0.169	0.177	1.00	0.156	pCi/L	02/21/17 10:08	03/15/17 05:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:14*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.25		0.357	0.375	1.00	0.474	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*81.5*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.84		0.395	0.415	5.00	0.474	pCi/L		03/15/17 12:12	1

Client Sample ID: G45S

Date Collected: 02/14/17 12:16
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.17		0.218	0.242	1.00	0.136	pCi/L	02/21/17 10:08	03/15/17 05:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:14*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.685		0.254	0.262	1.00	0.345	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*85.6*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.85		0.335	0.357	5.00	0.345	pCi/L		03/15/17 12:12	1

Client Sample ID: G45S Dup

Date Collected: 02/14/17 12:16
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.35		0.227	0.258	1.00	0.128	pCi/L	02/21/17 10:08	03/15/17 05:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:14*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.32		0.319	0.341	1.00	0.376	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*80.0*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.67		0.392	0.428	5.00	0.376	pCi/L		03/15/17 12:12	1

Client Sample ID: R08S

Date Collected: 02/14/17 14:00
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.14		0.230	0.252	1.00	0.145	pCi/L	02/21/17 10:08	03/15/17 05:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.1*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:14*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.58		0.318	0.350	1.00	0.353	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.1*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*85.6*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.71		0.393	0.431	5.00	0.353	pCi/L		03/15/17 12:12	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Client Sample ID: T03S
Date Collected: 02/15/17 09:44
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-6
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.735**		0.184	0.196	1.00	0.156	pCi/L	02/21/17 10:08	03/15/17 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.5*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.203	U	0.256	0.257	1.00	0.425	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.5*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*81.5*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.938**		0.316	0.323	5.00	0.425	pCi/L		03/15/17 12:12	1

Client Sample ID: G48S

Date Collected: 02/15/17 12:15
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-7

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.697**		0.173	0.184	1.00	0.139	pCi/L	02/21/17 10:08	03/15/17 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.127	U	0.245	0.245	1.00	0.417	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*81.1*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.824**		0.300	0.307	5.00	0.417	pCi/L		03/15/17 12:12	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Client Sample ID: G47S
Date Collected: 02/15/17 14:35
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-8
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.659		0.165	0.175	1.00	0.123	pCi/L	02/21/17 10:08	03/15/17 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0574	U	0.265	0.265	1.00	0.459	pCi/L	02/21/17 10:36	03/10/17 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*
Y Carrier	*83.4*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.716		0.312	0.317	5.00	0.459	pCi/L		03/15/17 12:12	1

Client Sample ID: G46S

Date Collected: 02/16/17 09:40
Date Received: 02/16/17 16:35

Lab Sample ID: 500-123791-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.698**		0.172	0.183	1.00	0.128	pCi/L	02/21/17 10:08	03/15/17 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.368	U	0.264	0.266	1.00	0.414	pCi/L	02/21/17 10:36	03/10/17 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.8*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:33*	*1*
Y Carrier	*83.7*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.07**		0.315	0.323	5.00	0.414	pCi/L		03/15/17 12:12	1

Client Sample ID: G44S

Date Collected: 02/16/17 13:27
Date Received: 02/16/17 16:35

Lab Sample ID: 500-123791-10

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.332		0.121	0.125	1.00	0.114	pCi/L	02/21/17 10:08	03/15/17 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.398		0.234	0.236	1.00	0.353	pCi/L	02/21/17 10:36	03/10/17 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:33*	*1*
Y Carrier	*85.2*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.729		0.263	0.267	5.00	0.353	pCi/L		03/15/17 12:12	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Client Sample ID: R32S
Date Collected: 02/16/17 15:22
Date Received: 02/16/17 16:35

Lab Sample ID: 500-123791-11
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.24		0.230	0.256	1.00	0.157	pCi/L	02/21/17 10:08	03/15/17 05:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.518		0.274	0.278	1.00	0.410	pCi/L	02/21/17 10:36	03/10/17 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:33*	*1*
Y Carrier	*83.7*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.76		0.358	0.378	5.00	0.410	pCi/L		03/15/17 12:12	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 293667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	PrecSep-21	
500-123791-2	G30S	Total/NA	Water	PrecSep-21	
500-123791-3	G45S	Total/NA	Water	PrecSep-21	
500-123791-4	G45S Dup	Total/NA	Water	PrecSep-21	
500-123791-5	R08S	Total/NA	Water	PrecSep-21	
500-123791-6	T03S	Total/NA	Water	PrecSep-21	
500-123791-7	G48S	Total/NA	Water	PrecSep-21	
500-123791-8	G47S	Total/NA	Water	PrecSep-21	
500-123791-9	G46S	Total/NA	Water	PrecSep-21	
500-123791-10	G44S	Total/NA	Water	PrecSep-21	
500-123791-11	R32S	Total/NA	Water	PrecSep-21	
MB 160-293667/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-293667/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-123791-5 DU	R08S	Total/NA	Water	PrecSep-21	

Prep Batch: 293677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-123791-1	G20S	Total/NA	Water	PrecSep_0	
500-123791-2	G30S	Total/NA	Water	PrecSep_0	
500-123791-3	G45S	Total/NA	Water	PrecSep_0	
500-123791-4	G45S Dup	Total/NA	Water	PrecSep_0	
500-123791-5	R08S	Total/NA	Water	PrecSep_0	
500-123791-6	T03S	Total/NA	Water	PrecSep_0	
500-123791-7	G48S	Total/NA	Water	PrecSep_0	
500-123791-8	G47S	Total/NA	Water	PrecSep_0	
500-123791-9	G46S	Total/NA	Water	PrecSep_0	
500-123791-10	G44S	Total/NA	Water	PrecSep_0	
500-123791-11	R32S	Total/NA	Water	PrecSep_0	
MB 160-293677/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-293677/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-123791-5 DU	R08S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-293667/1-A
Matrix: Water
Analysis Batch: 297724

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293667

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.005278	U	0.0760	0.0760	1.00	0.149	pCi/L	02/21/17 10:08	03/15/17 05:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*02/21/17 10:08*	*03/15/17 05:14*	*1*

Lab Sample ID: LCS 160-293667/2-A
Matrix: Water
Analysis Batch: 297724

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293667

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	11.38		1.21	1.00	0.140	pCi/L	100	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*

Lab Sample ID: 500-123791-5 DU
Matrix: Water
Analysis Batch: 297724

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 293667

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.14			1.300		0.253	1.00	0.119	pCi/L			0.32	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*92.0*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-293677/1-A
Matrix: Water
Analysis Batch: 296972

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 293677

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.02254	U	0.215	0.215	1.00	0.381	pCi/L	02/21/17 10:36	03/10/17 14:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:31*	*1*
Y Carrier	*84.5*		*40 - 110*	*02/21/17 10:36*	*03/10/17 14:31*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-293677/2-A
Matrix: Water
Analysis Batch: 296972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 293677

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.7	14.77		1.57	1.00	0.345	pCi/L	108	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.3*		*40 - 110*
Y Carrier	*88.2*		*40 - 110*

Lab Sample ID: 500-123791-5 DU
Matrix: Water
Analysis Batch: 296972

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 293677

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.58			1.601		0.365	1.00	0.371	pCi/L			0.03	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*92.0*		*40 - 110*
Y Carrier	*82.6*		*40 - 110*

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-123791 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 38

Client: Midwest Generation
Client Project #: EME LLC
Project Name: Joliet CCR #9
Project Location/State: Westmont, IL.
Lab Project #:
Sampler: Nic L., Andrew N.
Lab PM: Eric Lang

Preservative: 3 | 3 | 8

Parameter: Radium 226/228 | Total Metals | Cl, Fl, SO4, TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS	Comments
1		G205	02/13/17	1020	4	W	-	-	-	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	02/13/17	1605	Sherri Scott	TA-CHI	2/14/17	0705
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

3/15/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 4.7, 5.9

Client: Midwest Generation
Client Project #: EME LLC
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Nick L., Andrew N.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4. Cool to 4°
4°
4°
to 4°

500-123791 COC

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226/228	Parameter: Total Metals	Parameter: Cl, Fl, SO4, TDS	Comments
2		G30S	02/14/17	0933	5	W	3	1	1	1	
3		G45S	02/14/17	1216	5	W	3	1	1	1	
4		G45S DUP	02/14/17	1216	5	W	3	1	1	1	
5		R08S	02/14/17	1400	5	W	3	1	1	1	

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	02/14/17	1540	[illegible]	TALML	02/14/17	1540
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

3/15/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 4.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL.
Lab Project #:
Sampler: Nac L, Andrew M.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
6		TO3 S	02/15/17	0944	5	W		—	—	—							
7		G48S	02/15/17	1215	5	W		—	—	—							
8		G47S	02/15/17	1435	5	W		—	—	—							

Preservative Key
9. Other

500-123791 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	02/15/17	1642	[signature]	TALH	02/15/17	1642
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

3/15/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-123791

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 5.8

Client: Midwest Generation
Client Project #: EME LLC
Project Name: Joliet #9 CCR
Project Location/State: Westmont, IL
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
9		G446S	02/16/17	0940	5	W		✓	✓	✓						
10		G44S	02/16/17	1327	5	W		—	—	—						
11		R32S	02/16/17	1522	5	W		—	—	—						

Preservative Key
1 HCl, Cool to 4°
2 [illegible] to 4°
3 [illegible] to 4°
4 [illegible] to 4°
5 [illegible]ol to 4°

500-123791 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	02/16/17	1635	[illegible]	TALTA	02/16/17	1635
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-123791 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	OC No: 00-83894.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois	Page: Page 1 of 2
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/16/2017		Job #: 500-123791-2
City: Earth City	TAT Requested (days):		
State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: Joliet #9 CCR	Project #: 50011504		
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-123791-1)	2/13/17	10:20 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G30S (500-123791-2)	2/14/17	09:53 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-123791-3)	2/14/17	12:16 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S Dup (500-123791-4)	2/14/17	12:16 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-123791-5)	2/14/17	14:00 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-123791-6)	2/15/17	09:44 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G48S (500-123791-7)	2/15/17	12:15 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-123791-8)	2/15/17	14:35 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G46S (500-123791-9)	2/16/17	09:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 02/17/17 1600	Company TA	Received by:	Date/Time: 2.20.17 1000	Company TA SR
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

3/15/2017

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-83894.2
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 2 of 2
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-123791-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/16/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G44S (500-123791-10)	2/16/17	13:27 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-123791-11)	2/16/17	15:22 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. I

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	02/17/17 1600	TA	[signature] Clark	2.20.17 1000	TA SR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-123791-2

Login Number: 123791
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8, 4.7, 5.9, 4.6,5.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-123791-2

Login Number: 123791
List Number: 2
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 02/20/17 02:51 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0, 20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Client Sample ID: G20S
Date Collected: 02/13/17 10:20
Date Received: 02/13/17 16:05

Lab Sample ID: 500-123791-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:14	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: G30S
Date Collected: 02/14/17 09:53
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:14	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: G45S
Date Collected: 02/14/17 12:16
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:14	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: G45S Dup
Date Collected: 02/14/17 12:16
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:14	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Client Sample ID: R08S
Date Collected: 02/14/17 14:00
Date Received: 02/14/17 15:40

Lab Sample ID: 500-123791-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:14	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: T03S
Date Collected: 02/15/17 09:44
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:15	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: G48S
Date Collected: 02/15/17 12:15
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:15	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: G47S
Date Collected: 02/15/17 14:35
Date Received: 02/15/17 16:42

Lab Sample ID: 500-123791-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:15	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:32	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Client Sample ID: G46S

Lab Sample ID: 500-123791-9

Date Collected: 02/16/17 09:40
Matrix: Water
Date Received: 02/16/17 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:15	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:33	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: G44S

Lab Sample ID: 500-123791-10

Date Collected: 02/16/17 13:27
Matrix: Water
Date Received: 02/16/17 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:15	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:33	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Client Sample ID: R32S

Lab Sample ID: 500-123791-11

Date Collected: 02/16/17 15:22
Matrix: Water
Date Received: 02/16/17 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			293667	02/21/17 10:08	MBC	TAL SL
Total/NA	Analysis	903.0		1	297724	03/15/17 05:15	MLK	TAL SL
Total/NA	Prep	PrecSep_0			293677	02/21/17 10:36	MBC	TAL SL
Total/NA	Analysis	904.0		1	296972	03/10/17 14:33	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	297891	03/15/17 12:12	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-123791-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-123791-1	G20S	95.3
500-123791-2	G30S	90.6
500-123791-3	G45S	93.5
500-123791-4	G45S Dup	95.9
500-123791-5	R08S	97.1
500-123791-5 DU	R08S	92.0
500-123791-6	T03S	88.5
500-123791-7	G48S	93.5
500-123791-8	G47S	94.7
500-123791-9	G46S	93.8
500-123791-10	G44S	96.8
500-123791-11	R32S	90.6
LCS 160-293667/2-A	Lab Control Sample	97.3
MB 160-293667/1-A	Method Blank	94.4

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-123791-1	G20S	95.3	81.5
500-123791-2	G30S	90.6	81.5
500-123791-3	G45S	93.5	85.6
500-123791-4	G45S Dup	95.9	80.0
500-123791-5	R08S	97.1	85.6
500-123791-5 DU	R08S	92.0	82.6
500-123791-6	T03S	88.5	81.5
500-123791-7	G48S	93.5	81.1
500-123791-8	G47S	94.7	83.4
500-123791-9	G46S	93.8	83.7
500-123791-10	G44S	96.8	85.2
500-123791-11	R32S	90.6	83.7
LCS 160-293677/2-A	Lab Control Sample	97.3	88.2
MB 160-293677/1-A	Method Blank	94.4	84.5

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-128504-1
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
6/9/2017 2:33:03 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-128504-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-128504-1

Comments
No additional comments.

Receipt
The samples were received on 5/22/2017 5:12 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.7º C, 3.2º C and 4.7º C.

Metals
Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-386849. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The method blank for preparation batch 500-386426 and analytical batch 500-386849 contained Barium above the reporting limit (RL). Associated sample(s) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

Method(s) 6020, 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-387359. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The continuing calibration verification (CCV), at line 34, associated with batch 500-387359 recovered above the upper control limit for Beryllium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 6020A: The low level continuing calibration verification (CCVL) at line 42 in AD batch 500-387359 recovered above the upper control limit for Beryllium. The samples associated with this CCVL were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 6020A: The low level continuing calibration verification (CCVL) at line 40 in AD batch 500-387419 recovered above the upper control limit for Beryllium. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-128504-1	T03S	Water	05/22/17 13:08	05/22/17 17:12
500-128504-2	G46S	Water	05/22/17 15:05	05/22/17 17:12
500-128504-3	G48S	Water	05/23/17 09:50	05/23/17 15:50
500-128504-4	G47S	Water	05/23/17 11:10	05/23/17 15:50
500-128504-5	DUP	Water	05/23/17 11:00	05/23/17 15:50
500-128504-6	G45S	Water	05/23/17 14:26	05/23/17 15:50
500-128504-7	G20S	Water	05/24/17 09:25	05/24/17 15:30
500-128504-8	G44S	Water	05/24/17 13:29	05/24/17 15:30
500-128504-9	R08S	Water	05/25/17 09:45	05/25/17 15:35
500-128504-10	R32S	Water	05/25/17 11:19	05/25/17 15:35
500-128504-11	G30S	Water	05/25/17 12:58	05/25/17 15:35

Client Sample ID: T03S
Date Collected: 05/22/17 13:08
Date Received: 05/22/17 17:12

Lab Sample ID: 500-128504-1
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.019**		0.010		mg/L		05/23/17 08:50	05/23/17 19:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/23/17 08:50	05/24/17 18:07	1
Arsenic	**0.0017**		0.0010		mg/L		05/23/17 08:50	05/24/17 18:07	1
Barium	**0.088**	**B**	0.0025		mg/L		05/23/17 08:50	05/24/17 18:07	1
Beryllium	<0.0010	^	0.0010		mg/L		05/23/17 08:50	05/26/17 12:01	1
Boron	**1.4**		0.50		mg/L		05/23/17 08:50	05/25/17 18:58	10
Cadmium	<0.00050		0.00050		mg/L		05/23/17 08:50	05/24/17 18:07	1
Calcium	**110**		0.20		mg/L		05/23/17 08:50	05/24/17 18:07	1
Chromium	<0.0050		0.0050		mg/L		05/23/17 08:50	05/24/17 18:07	1
Cobalt	**0.0015**		0.0010		mg/L		05/23/17 08:50	05/24/17 18:07	1
Lead	**0.0023**		0.00050		mg/L		05/23/17 08:50	05/24/17 18:07	1
Molybdenum	**0.13**		0.0050		mg/L		05/23/17 08:50	05/24/17 18:07	1
Selenium	<0.0025		0.0025		mg/L		05/23/17 08:50	05/24/17 18:07	1
Thallium	<0.0020		0.0020		mg/L		05/23/17 08:50	05/24/17 18:07	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/23/17 12:45	05/24/17 11:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**740**		10		mg/L			05/26/17 03:44	1
Chloride	**78**		10		mg/L			05/30/17 21:48	5
Fluoride	**0.23**		0.10		mg/L			06/09/17 09:41	1
Sulfate	**160**		50		mg/L			06/06/17 04:36	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**128.79**				ft			05/22/17 13:08	1
Depth to Water (ft from MP)	**131.87**				ft			05/22/17 13:08	1
Elevation of well (ft from MP)	**629.65**				ft			05/22/17 13:08	1
Field pH	**7.25**				SU			05/22/17 13:08	1
Field Temperature	**58.1**				Degrees F			05/22/17 13:08	1
Ground Water Elevation	**497.78**				ft			05/22/17 13:08	1
Specific Conductance	**1025**				umhos/cm			05/22/17 13:08	1
Well bottom elevation	**456.70**				ft			05/22/17 13:08	1

Client Sample ID: G46S
Date Collected: 05/22/17 15:05
Date Received: 05/22/17 17:12

Lab Sample ID: 500-128504-2
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		05/23/17 08:50	05/23/17 19:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/23/17 08:50	05/24/17 18:26	1
Arsenic	0.0033		0.0010		mg/L		05/23/17 08:50	05/24/17 18:26	1
Barium	0.046	B	0.0025		mg/L		05/23/17 08:50	05/24/17 18:26	1
Beryllium	<0.0010	^	0.0010		mg/L		05/23/17 08:50	05/26/17 12:28	1
Boron	6.8		1.0		mg/L		05/23/17 08:50	05/25/17 19:17	20
Cadmium	<0.00050		0.00050		mg/L		05/23/17 08:50	05/24/17 18:26	1
Calcium	100		0.20		mg/L		05/23/17 08:50	05/24/17 18:26	1
Chromium	<0.0050		0.0050		mg/L		05/23/17 08:50	05/24/17 18:26	1
Cobalt	<0.0010		0.0010		mg/L		05/23/17 08:50	05/24/17 18:26	1
Lead	<0.00050		0.00050		mg/L		05/23/17 08:50	05/24/17 18:26	1
Molybdenum	1.4		0.0050		mg/L		05/23/17 08:50	05/24/17 18:26	1
Selenium	<0.0025		0.0025		mg/L		05/23/17 08:50	05/24/17 18:26	1
Thallium	<0.0020		0.0020		mg/L		05/23/17 08:50	05/24/17 18:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/23/17 12:45	05/24/17 11:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	970		10		mg/L			05/26/17 03:47	1
Chloride	130		10		mg/L			05/30/17 21:49	5
Fluoride	0.44		0.10		mg/L			06/09/17 09:50	1
Sulfate	350		100		mg/L			06/06/17 04:39	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	95.73				ft			05/22/17 15:05	1
Depth to Water (ft from MP)	98.43				ft			05/22/17 15:05	1
Elevation of well (ft from MP)	601.32				ft			05/22/17 15:05	1
Field pH	7.37				SU			05/22/17 15:05	1
Field Temperature	63.0				Degrees F			05/22/17 15:05	1
Ground Water Elevation	502.89				ft			05/22/17 15:05	1
Specific Conductance	1250				umhos/cm			05/22/17 15:05	1
Well bottom elevation	453.62				ft			05/22/17 15:05	1

Client Sample ID: G48S
Date Collected: 05/23/17 09:50
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-3
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.016**		0.010		mg/L		05/24/17 08:10	05/24/17 16:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/24/17 08:10	05/24/17 19:31	1
Arsenic	**0.030**		0.0010		mg/L		05/24/17 08:10	05/24/17 19:31	1
Barium	**0.014**		0.0025		mg/L		05/24/17 08:10	05/24/17 19:31	1
Beryllium	<0.0010	^	0.0010		mg/L		05/24/17 08:10	05/26/17 12:31	1
Boron	**9.2**		1.0		mg/L		05/24/17 08:10	05/26/17 11:11	20
Cadmium	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:31	1
Calcium	**8.1**		0.20		mg/L		05/24/17 08:10	05/24/17 19:31	1
Chromium	<0.0050		0.0050		mg/L		05/24/17 08:10	05/24/17 19:31	1
Cobalt	<0.0010		0.0010		mg/L		05/24/17 08:10	05/24/17 19:31	1
Lead	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:31	1
Molybdenum	**0.95**		0.0050		mg/L		05/24/17 08:10	05/24/17 19:31	1
Selenium	<0.0025		0.0025		mg/L		05/24/17 08:10	05/24/17 19:31	1
Thallium	<0.0020		0.0020		mg/L		05/24/17 08:10	05/24/17 19:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/17 11:45	05/25/17 09:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			05/26/17 23:51	1
Chloride	**120**		10		mg/L			05/30/17 21:49	5
Fluoride	**1.3**		0.10		mg/L			06/09/17 09:54	1
Sulfate	**470**		100		mg/L			06/06/17 04:40	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**97.61**				ft			05/23/17 09:50	1
Depth to Water (ft from MP)	**100.06**				ft			05/23/17 09:50	1
Elevation of well (ft from MP)	**620.77**				ft			05/23/17 09:50	1
Field pH	**9.49**				SU			05/23/17 09:50	1
Field Temperature	**54.7**				Degrees F			05/23/17 09:50	1
Ground Water Elevation	**520.71**				ft			05/23/17 09:50	1
Specific Conductance	**1510**				umhos/cm			05/23/17 09:50	1
Well bottom elevation	**468.32**				ft			05/23/17 09:50	1

Client Sample ID: G47S
Date Collected: 05/23/17 11:10
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-4
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.013**		0.010		mg/L		05/24/17 08:10	05/24/17 16:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/24/17 08:10	05/24/17 19:35	1
Arsenic	**0.18**		0.0010		mg/L		05/24/17 08:10	05/24/17 19:35	1
Barium	**0.0081**		0.0025		mg/L		05/24/17 08:10	05/24/17 19:35	1
Beryllium	<0.0010	^	0.0010		mg/L		05/24/17 08:10	05/26/17 12:35	1
Boron	**18**		5.0		mg/L		05/24/17 08:10	05/26/17 11:15	100
Cadmium	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:35	1
Calcium	**0.93**		0.20		mg/L		05/24/17 08:10	05/24/17 19:35	1
Chromium	<0.0050		0.0050		mg/L		05/24/17 08:10	05/24/17 19:35	1
Cobalt	<0.0010		0.0010		mg/L		05/24/17 08:10	05/24/17 19:35	1
Lead	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:35	1
Molybdenum	**1.3**		0.0050		mg/L		05/24/17 08:10	05/24/17 19:35	1
Selenium	**0.0025**		0.0025		mg/L		05/24/17 08:10	05/24/17 19:35	1
Thallium	<0.0020		0.0020		mg/L		05/24/17 08:10	05/24/17 19:35	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/17 11:45	05/25/17 09:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1800**		10		mg/L			05/26/17 23:56	1
Chloride	**160**		10		mg/L			05/30/17 21:50	5
Fluoride	**2.2**		0.10		mg/L			06/09/17 09:57	1
Sulfate	**720**		250		mg/L			06/06/17 04:41	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**90.11**				ft			05/23/17 11:10	1
Depth to Water (ft from MP)	**92.61**				ft			05/23/17 11:10	1
Elevation of well (ft from MP)	**612.32**				ft			05/23/17 11:10	1
Field pH	**10.03**				SU			05/23/17 11:10	1
Field Temperature	**57.0**				Degrees F			05/23/17 11:10	1
Ground Water Elevation	**519.71**				ft			05/23/17 11:10	1
Specific Conductance	**2420**				umhos/cm			05/23/17 11:10	1
Well bottom elevation	**459.84**				ft			05/23/17 11:10	1

Client Sample ID: DUP
Date Collected: 05/23/17 11:00
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-5
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.013**		0.010		mg/L		05/24/17 08:10	05/24/17 16:41	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/24/17 08:10	05/24/17 19:38	1
Arsenic	**0.19**		0.0010		mg/L		05/24/17 08:10	05/24/17 19:38	1
Barium	**0.0086**		0.0025		mg/L		05/24/17 08:10	05/24/17 19:38	1
Beryllium	<0.0010	^	0.0010		mg/L		05/24/17 08:10	05/26/17 12:39	1
Boron	**18**		5.0		mg/L		05/24/17 08:10	05/26/17 11:18	100
Cadmium	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:38	1
Calcium	**1.0**		0.20		mg/L		05/24/17 08:10	05/24/17 19:38	1
Chromium	<0.0050		0.0050		mg/L		05/24/17 08:10	05/24/17 19:38	1
Cobalt	<0.0010		0.0010		mg/L		05/24/17 08:10	05/24/17 19:38	1
Lead	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:38	1
Molybdenum	**1.4**		0.0050		mg/L		05/24/17 08:10	05/24/17 19:38	1
Selenium	**0.0027**		0.0025		mg/L		05/24/17 08:10	05/24/17 19:38	1
Thallium	<0.0020		0.0020		mg/L		05/24/17 08:10	05/24/17 19:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/17 11:45	05/25/17 09:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1800**		10		mg/L			05/26/17 23:59	1
Chloride	**160**		10		mg/L			05/30/17 21:50	5
Fluoride	**2.3**		0.10		mg/L			06/09/17 10:00	1
Sulfate	**690**		250		mg/L			06/06/17 04:42	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**90.11**				ft			05/23/17 11:00	1
Depth to Water (ft from MP)	**92.61**				ft			05/23/17 11:00	1
Elevation of well (ft from MP)	**612.32**				ft			05/23/17 11:00	1
Field pH	**10.03**				SU			05/23/17 11:00	1
Field Temperature	**57.0**				Degrees F			05/23/17 11:00	1
Ground Water Elevation	**519.71**				ft			05/23/17 11:00	1
Specific Conductance	**2420**				umhos/cm			05/23/17 11:00	1
Well bottom elevation	**459.84**				ft			05/23/17 11:00	1

Client Sample ID: G45S
Date Collected: 05/23/17 14:26
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-6
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.027**		0.010		mg/L		05/24/17 08:10	05/24/17 16:45	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/24/17 08:10	05/24/17 19:42	1
Arsenic	**0.0082**		0.0010		mg/L		05/24/17 08:10	05/24/17 19:42	1
Barium	**0.033**		0.0025		mg/L		05/24/17 08:10	05/24/17 19:42	1
Beryllium	<0.0010		0.0010		mg/L		05/24/17 08:10	05/26/17 11:22	1
Boron	**0.36**		0.050		mg/L		05/24/17 08:10	05/26/17 11:22	1
Cadmium	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:42	1
Calcium	**85**		0.20		mg/L		05/24/17 08:10	05/24/17 19:42	1
Chromium	<0.0050		0.0050		mg/L		05/24/17 08:10	05/24/17 19:42	1
Cobalt	<0.0010		0.0010		mg/L		05/24/17 08:10	05/24/17 19:42	1
Lead	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:42	1
Molybdenum	**0.0093**		0.0050		mg/L		05/24/17 08:10	05/24/17 19:42	1
Selenium	<0.0025		0.0025		mg/L		05/24/17 08:10	05/24/17 19:42	1
Thallium	<0.0020		0.0020		mg/L		05/24/17 08:10	05/24/17 19:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/17 11:45	05/25/17 09:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**660**		10		mg/L			05/27/17 00:02	1
Chloride	**110**		10		mg/L			05/30/17 21:51	5
Fluoride	**0.35**		0.10		mg/L			06/09/17 10:04	1
Sulfate	**150**		50		mg/L			06/06/17 04:43	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**60.10**				ft			05/23/17 14:26	1
Depth to Water (ft from MP)	**63.07**				ft			05/23/17 14:26	1
Elevation of well (ft from MP)	**603.31**				ft			05/23/17 14:26	1
Field pH	**7.30**				SU			05/23/17 14:26	1
Field Temperature	**56.5**				Degrees F			05/23/17 14:26	1
Ground Water Elevation	**540.24**				ft			05/23/17 14:26	1
Specific Conductance	**893**				umhos/cm			05/23/17 14:26	1
Well bottom elevation	**471.05**				ft			05/23/17 14:26	1

Client Sample ID: G20S
Date Collected: 05/24/17 09:25
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.038**		0.010		mg/L		05/25/17 08:40	05/25/17 21:04	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/25/17 08:40	05/26/17 14:19	1
Arsenic	<0.0010		0.0010		mg/L		05/25/17 08:40	05/26/17 14:19	1
Barium	**0.046**		0.0025		mg/L		05/25/17 08:40	05/26/17 14:19	1
Beryllium	<0.0010	^	0.0010		mg/L		05/25/17 08:40	05/30/17 14:31	1
Boron	**1.3**		0.25		mg/L		05/25/17 08:40	05/30/17 12:17	5
Cadmium	<0.00050		0.00050		mg/L		05/25/17 08:40	05/26/17 14:19	1
Calcium	**55**		0.20		mg/L		05/25/17 08:40	05/26/17 14:19	1
Chromium	<0.0050		0.0050		mg/L		05/25/17 08:40	05/26/17 14:19	1
Cobalt	<0.0010		0.0010		mg/L		05/25/17 08:40	05/26/17 14:19	1
Lead	<0.00050		0.00050		mg/L		05/25/17 08:40	05/26/17 14:19	1
Molybdenum	**0.017**		0.0050		mg/L		05/25/17 08:40	05/26/17 14:19	1
Selenium	<0.0025		0.0025		mg/L		05/25/17 08:40	05/26/17 14:19	1
Thallium	<0.0020		0.0020		mg/L		05/25/17 08:40	05/26/17 14:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/17 12:15	05/26/17 10:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**430**		10		mg/L			05/29/17 17:24	1
Chloride	**12**		2.0		mg/L			05/24/17 20:00	1
Fluoride	**0.81**		0.10		mg/L			06/09/17 10:17	1
Sulfate	**66**		25		mg/L			06/06/17 04:46	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**43.28**				ft			05/24/17 09:25	1
Depth to Water (ft from MP)	**46.06**				ft			05/24/17 09:25	1
Elevation of well (ft from MP)	**580.33**				ft			05/24/17 09:25	1
Field pH	**7.45**				SU			05/24/17 09:25	1
Field Temperature	**57.7**				Degrees F			05/24/17 09:25	1
Ground Water Elevation	**534.27**				ft			05/24/17 09:25	1
Specific Conductance	**610**				umhos/cm			05/24/17 09:25	1
Well bottom elevation	**442.28**				ft			05/24/17 09:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-1

Client Sample ID: G44S
Date Collected: 05/24/17 13:29
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.011**		0.010		mg/L		05/25/17 08:40	05/25/17 21:09	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/25/17 08:40	05/26/17 14:23	1
Arsenic	<0.0010		0.0010		mg/L		05/25/17 08:40	05/26/17 14:23	1
Barium	**0.048**		0.0025		mg/L		05/25/17 08:40	05/26/17 14:23	1
Beryllium	<0.0010	^	0.0010		mg/L		05/25/17 08:40	05/30/17 14:35	1
Boron	**0.83**		0.25		mg/L		05/25/17 08:40	05/30/17 12:20	5
Cadmium	<0.00050		0.00050		mg/L		05/25/17 08:40	05/26/17 14:23	1
Calcium	**120**		0.20		mg/L		05/25/17 08:40	05/26/17 14:23	1
Chromium	<0.0050		0.0050		mg/L		05/25/17 08:40	05/26/17 14:23	1
Cobalt	<0.0010		0.0010		mg/L		05/25/17 08:40	05/26/17 14:23	1
Lead	<0.00050		0.00050		mg/L		05/25/17 08:40	05/26/17 14:23	1
Molybdenum	**0.031**		0.0050		mg/L		05/25/17 08:40	05/26/17 14:23	1
Selenium	<0.0025		0.0025		mg/L		05/25/17 08:40	05/26/17 14:23	1
Thallium	<0.0020		0.0020		mg/L		05/25/17 08:40	05/26/17 14:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/17 12:15	05/26/17 10:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**600**		10		mg/L			05/29/17 17:26	1
Chloride	**31**		2.0		mg/L			05/24/17 20:00	1
Fluoride	**0.19**		0.10		mg/L			06/09/17 10:20	1
Sulfate	**95**		25		mg/L			06/06/17 04:47	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**79.96**				ft			05/24/17 13:29	1
Depth to Water (ft from MP)	**82.14**				ft			05/24/17 13:29	1
Elevation of well (ft from MP)	**586.69**				ft			05/24/17 13:29	1
Field pH	**7.08**				SU			05/24/17 13:29	1
Field Temperature	**56.8**				Degrees F			05/24/17 13:29	1
Ground Water Elevation	**504.55**				ft			05/24/17 13:29	1
Specific Conductance	**858**				umhos/cm			05/24/17 13:29	1
Well bottom elevation	**455.11**				ft			05/24/17 13:29	1

Client Sample ID: R08S
Date Collected: 05/25/17 09:45
Date Received: 05/25/17 15:35

Lab Sample ID: 500-128504-9
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.25**		0.020		mg/L		05/26/17 08:34	05/26/17 23:02	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060		mg/L		05/26/17 08:34	05/26/17 16:54	1
Arsenic	**0.0028**		0.0020		mg/L		05/26/17 08:34	05/26/17 16:54	1
Barium	**0.092**		0.0050		mg/L		05/26/17 08:34	05/26/17 16:54	1
Beryllium	<0.0020	^	0.0020		mg/L		05/26/17 08:34	05/30/17 14:39	1
Boron	**12**		2.0		mg/L		05/26/17 08:34	05/30/17 12:32	20
Cadmium	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 16:54	1
Calcium	**250**		0.40		mg/L		05/26/17 08:34	05/26/17 16:54	1
Chromium	<0.010		0.010		mg/L		05/26/17 08:34	05/26/17 16:54	1
Cobalt	<0.0020		0.0020		mg/L		05/26/17 08:34	05/26/17 16:54	1
Lead	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 16:54	1
Molybdenum	**0.64**		0.010		mg/L		05/26/17 08:34	05/26/17 16:54	1
Selenium	**0.021**		0.0050		mg/L		05/26/17 08:34	05/26/17 16:54	1
Thallium	<0.0040		0.0040		mg/L		05/26/17 08:34	05/26/17 16:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/26/17 12:30	05/30/17 14:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**830**		10		mg/L			06/01/17 23:50	1
Chloride	**90**		10		mg/L			06/05/17 23:17	5
Fluoride	**0.17**		0.10		mg/L			06/09/17 10:24	1
Sulfate	**340**		100		mg/L			06/06/17 04:48	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**65.01**				ft			05/25/17 09:45	1
Depth to Water (ft from MP)	**67.56**				ft			05/25/17 09:45	1
Elevation of well (ft from MP)	**578.65**				ft			05/25/17 09:45	1
Field pH	**7.56**				SU			05/25/17 09:45	1
Field Temperature	**57.0**				Degrees F			05/25/17 09:45	1
Ground Water Elevation	**511.09**				ft			05/25/17 09:45	1
Specific Conductance	**974**				umhos/cm			05/25/17 09:45	1
Well bottom elevation	**453.08**				ft			05/25/17 09:45	1

Client Sample ID: R32S
Date Collected: 05/25/17 11:19
Date Received: 05/25/17 15:35

Lab Sample ID: 500-128504-10
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.14**		0.020		mg/L		05/26/17 08:34	05/26/17 23:06	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060		mg/L		05/26/17 08:34	05/26/17 16:59	1
Arsenic	**0.0042**		0.0020		mg/L		05/26/17 08:34	05/26/17 16:59	1
Barium	**0.075**		0.0050		mg/L		05/26/17 08:34	05/26/17 16:59	1
Beryllium	<0.0020	^	0.0020		mg/L		05/26/17 08:34	05/30/17 14:43	1
Boron	**8.3**		2.0		mg/L		05/26/17 08:34	05/30/17 12:36	20
Cadmium	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 16:59	1
Calcium	**240**		0.40		mg/L		05/26/17 08:34	05/26/17 16:59	1
Chromium	<0.010		0.010		mg/L		05/26/17 08:34	05/26/17 16:59	1
Cobalt	<0.0020		0.0020		mg/L		05/26/17 08:34	05/26/17 16:59	1
Lead	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 16:59	1
Molybdenum	**1.4**		0.010		mg/L		05/26/17 08:34	05/26/17 16:59	1
Selenium	<0.0050		0.0050		mg/L		05/26/17 08:34	05/26/17 16:59	1
Thallium	<0.0040		0.0040		mg/L		05/26/17 08:34	05/26/17 16:59	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/26/17 12:30	05/30/17 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**850**		10		mg/L			06/01/17 23:52	1
Chloride	**88**		10		mg/L			06/05/17 23:18	5
Fluoride	**0.42**		0.10		mg/L			06/09/17 10:27	1
Sulfate	**320**		100		mg/L			06/06/17 04:49	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**17.30**				ft			05/25/17 11:19	1
Depth to Water (ft from MP)	**19.33**				ft			05/25/17 11:19	1
Elevation of well (ft from MP)	**536.81**				ft			05/25/17 11:19	1
Field pH	**7.54**				SU			05/25/17 11:19	1
Field Temperature	**53.1**				Degrees F			05/25/17 11:19	1
Ground Water Elevation	**517.48**				ft			05/25/17 11:19	1
Specific Conductance	**714**				umhos/cm			05/25/17 11:19	1
Well bottom elevation	**457.84**				ft			05/25/17 11:19	1

Client Sample ID: G30S
Date Collected: 05/25/17 12:58
Date Received: 05/25/17 15:35

Lab Sample ID: 500-128504-11
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.040**		0.020		mg/L		05/26/17 08:34	05/26/17 23:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0060		0.0060		mg/L		05/26/17 08:34	05/26/17 17:03	1
Arsenic	**0.019**		0.0020		mg/L		05/26/17 08:34	05/26/17 17:03	1
Barium	**0.078**		0.0050		mg/L		05/26/17 08:34	05/26/17 17:03	1
Beryllium	<0.0020	^	0.0020		mg/L		05/26/17 08:34	05/30/17 14:47	1
Boron	**11**		2.0		mg/L		05/26/17 08:34	05/30/17 12:39	20
Cadmium	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 17:03	1
Calcium	**110**		0.40		mg/L		05/26/17 08:34	05/26/17 17:03	1
Chromium	<0.010		0.010		mg/L		05/26/17 08:34	05/26/17 17:03	1
Cobalt	<0.0020		0.0020		mg/L		05/26/17 08:34	05/26/17 17:03	1
Lead	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 17:03	1
Molybdenum	**0.45**		0.010		mg/L		05/26/17 08:34	05/26/17 17:03	1
Selenium	<0.0050		0.0050		mg/L		05/26/17 08:34	05/26/17 17:03	1
Thallium	<0.0040		0.0040		mg/L		05/26/17 08:34	05/26/17 17:03	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/26/17 12:30	05/30/17 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			06/01/17 23:55	1
Chloride	**180**		10		mg/L			06/05/17 23:18	5
Fluoride	**1.4**		0.10		mg/L			06/09/17 10:30	1
Sulfate	**430**		100		mg/L			06/06/17 04:50	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**-0.62**				ft			05/25/17 12:58	1
Depth to Water (ft from MP)	**1.69**				ft			05/25/17 12:58	1
Elevation of well (ft from MP)	**524.40**				ft			05/25/17 12:58	1
Field pH	**7.67**				SU			05/25/17 12:58	1
Field Temperature	**55.9**				Degrees F			05/25/17 12:58	1
Ground Water Elevation	**522.71**				ft			05/25/17 12:58	1
Specific Conductance	**1454**				umhos/cm			05/25/17 12:58	1
Well bottom elevation	**462.58**				ft			05/25/17 12:58	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 386426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total Recoverable	Water	3005A	
500-128504-2	G46S	Total Recoverable	Water	3005A	
MB 500-386426/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-386426/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-128504-1 MS	T03S	Total Recoverable	Water	3005A	
500-128504-1 MSD	T03S	Total Recoverable	Water	3005A	
500-128504-1 DU	T03S	Total Recoverable	Water	3005A	

Prep Batch: 386479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	7470A	
500-128504-2	G46S	Total/NA	Water	7470A	
MB 500-386479/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-386479/13-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 386596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-3	G48S	Total Recoverable	Water	3005A	
500-128504-4	G47S	Total Recoverable	Water	3005A	
500-128504-5	DUP	Total Recoverable	Water	3005A	
500-128504-6	G45S	Total Recoverable	Water	3005A	
MB 500-386596/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-386596/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 386625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total Recoverable	Water	6010C	386426
500-128504-2	G46S	Total Recoverable	Water	6010C	386426
MB 500-386426/1-A	Method Blank	Total Recoverable	Water	6010C	386426
LCS 500-386426/2-A	Lab Control Sample	Total Recoverable	Water	6010C	386426
500-128504-1 MS	T03S	Total Recoverable	Water	6010C	386426
500-128504-1 MSD	T03S	Total Recoverable	Water	6010C	386426
500-128504-1 DU	T03S	Total Recoverable	Water	6010C	386426

Prep Batch: 386660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-3	G48S	Total/NA	Water	7470A	
500-128504-4	G47S	Total/NA	Water	7470A	
500-128504-5	DUP	Total/NA	Water	7470A	
500-128504-6	G45S	Total/NA	Water	7470A	
MB 500-386660/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-386660/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 386672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	7470A	386479
500-128504-2	G46S	Total/NA	Water	7470A	386479
MB 500-386479/12-A	Method Blank	Total/NA	Water	7470A	386479
LCS 500-386479/13-A	Lab Control Sample	Total/NA	Water	7470A	386479

Metals (Continued)

Analysis Batch: 386777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-3	G48S	Total Recoverable	Water	6010C	386596
500-128504-4	G47S	Total Recoverable	Water	6010C	386596
500-128504-5	DUP	Total Recoverable	Water	6010C	386596
500-128504-6	G45S	Total Recoverable	Water	6010C	386596
MB 500-386596/1-A	Method Blank	Total Recoverable	Water	6010C	386596
LCS 500-386596/2-A	Lab Control Sample	Total Recoverable	Water	6010C	386596

Prep Batch: 386818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total Recoverable	Water	3005A	
500-128504-8	G44S	Total Recoverable	Water	3005A	
MB 500-386818/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-386818/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 386849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total Recoverable	Water	6020A	386426
500-128504-2	G46S	Total Recoverable	Water	6020A	386426
500-128504-3	G48S	Total Recoverable	Water	6020A	386596
500-128504-4	G47S	Total Recoverable	Water	6020A	386596
500-128504-5	DUP	Total Recoverable	Water	6020A	386596
500-128504-6	G45S	Total Recoverable	Water	6020A	386596
MB 500-386426/1-A	Method Blank	Total Recoverable	Water	6020A	386426
MB 500-386596/1-A	Method Blank	Total Recoverable	Water	6020A	386596
LCS 500-386426/2-A	Lab Control Sample	Total Recoverable	Water	6020A	386426
LCS 500-386596/2-A	Lab Control Sample	Total Recoverable	Water	6020A	386596
500-128504-1 MS	T03S	Total Recoverable	Water	6020A	386426
500-128504-1 MSD	T03S	Total Recoverable	Water	6020A	386426
500-128504-1 DU	T03S	Total Recoverable	Water	6020A	386426

Analysis Batch: 386852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-3	G48S	Total/NA	Water	7470A	386660
500-128504-4	G47S	Total/NA	Water	7470A	386660
500-128504-5	DUP	Total/NA	Water	7470A	386660
500-128504-6	G45S	Total/NA	Water	7470A	386660
MB 500-386660/12-A	Method Blank	Total/NA	Water	7470A	386660
LCS 500-386660/13-A	Lab Control Sample	Total/NA	Water	7470A	386660

Prep Batch: 386882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total/NA	Water	7470A	
500-128504-8	G44S	Total/NA	Water	7470A	
MB 500-386882/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-386882/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 387010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total Recoverable	Water	6020A	386426
500-128504-2	G46S	Total Recoverable	Water	6020A	386426
MB 500-386426/1-A	Method Blank	Total Recoverable	Water	6020A	386426

Metals (Continued)

Analysis Batch: 387010 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-386426/2-A	Lab Control Sample	Total Recoverable	Water	6020A	386426
500-128504-1 MS	T03S	Total Recoverable	Water	6020A	386426
500-128504-1 MSD	T03S	Total Recoverable	Water	6020A	386426
500-128504-1 DU	T03S	Total Recoverable	Water	6020A	386426

Prep Batch: 387019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-9	R08S	Total Recoverable	Water	3005A	
500-128504-10	R32S	Total Recoverable	Water	3005A	
500-128504-11	G30S	Total Recoverable	Water	3005A	
MB 500-387019/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-387019/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 387030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total Recoverable	Water	6010C	386818
500-128504-8	G44S	Total Recoverable	Water	6010C	386818
MB 500-386818/1-A	Method Blank	Total Recoverable	Water	6010C	386818
LCS 500-386818/2-A	Lab Control Sample	Total Recoverable	Water	6010C	386818

Prep Batch: 387094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-9	R08S	Total/NA	Water	7470A	
500-128504-10	R32S	Total/NA	Water	7470A	
500-128504-11	G30S	Total/NA	Water	7470A	
MB 500-387094/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-387094/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 387103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total/NA	Water	7470A	386882
500-128504-8	G44S	Total/NA	Water	7470A	386882
MB 500-386882/12-A	Method Blank	Total/NA	Water	7470A	386882
LCS 500-386882/13-A	Lab Control Sample	Total/NA	Water	7470A	386882

Analysis Batch: 387183

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-9	R08S	Total Recoverable	Water	6010C	387019
500-128504-10	R32S	Total Recoverable	Water	6010C	387019
500-128504-11	G30S	Total Recoverable	Water	6010C	387019
MB 500-387019/1-A	Method Blank	Total Recoverable	Water	6010C	387019
LCS 500-387019/2-A	Lab Control Sample	Total Recoverable	Water	6010C	387019

Analysis Batch: 387359

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total Recoverable	Water	6020A	386426
500-128504-2	G46S	Total Recoverable	Water	6020A	386426
500-128504-3	G48S	Total Recoverable	Water	6020A	386596
500-128504-3	G48S	Total Recoverable	Water	6020A	386596
500-128504-4	G47S	Total Recoverable	Water	6020A	386596
500-128504-4	G47S	Total Recoverable	Water	6020A	386596

Metals (Continued)

Analysis Batch: 387359 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-5	DUP	Total Recoverable	Water	6020A	386596
500-128504-5	DUP	Total Recoverable	Water	6020A	386596
500-128504-6	G45S	Total Recoverable	Water	6020A	386596
500-128504-7	G20S	Total Recoverable	Water	6020A	386818
500-128504-8	G44S	Total Recoverable	Water	6020A	386818
500-128504-9	R08S	Total Recoverable	Water	6020A	387019
500-128504-10	R32S	Total Recoverable	Water	6020A	387019
500-128504-11	G30S	Total Recoverable	Water	6020A	387019
MB 500-386426/1-A	Method Blank	Total Recoverable	Water	6020A	386426
MB 500-386596/1-A	Method Blank	Total Recoverable	Water	6020A	386596
MB 500-386818/1-A	Method Blank	Total Recoverable	Water	6020A	386818
MB 500-387019/1-A	Method Blank	Total Recoverable	Water	6020A	387019
LCS 500-386426/2-A	Lab Control Sample	Total Recoverable	Water	6020A	386426
LCS 500-386596/2-A	Lab Control Sample	Total Recoverable	Water	6020A	386596
LCS 500-386818/2-A	Lab Control Sample	Total Recoverable	Water	6020A	386818
LCS 500-387019/2-A	Lab Control Sample	Total Recoverable	Water	6020A	387019
500-128504-1 MS	T03S	Total Recoverable	Water	6020A	386426
500-128504-1 MSD	T03S	Total Recoverable	Water	6020A	386426
500-128504-1 DU	T03S	Total Recoverable	Water	6020A	386426

Analysis Batch: 387419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total Recoverable	Water	6020A	386818
500-128504-7	G20S	Total Recoverable	Water	6020A	386818
500-128504-8	G44S	Total Recoverable	Water	6020A	386818
500-128504-8	G44S	Total Recoverable	Water	6020A	386818
500-128504-9	R08S	Total Recoverable	Water	6020A	387019
500-128504-9	R08S	Total Recoverable	Water	6020A	387019
500-128504-10	R32S	Total Recoverable	Water	6020A	387019
500-128504-10	R32S	Total Recoverable	Water	6020A	387019
500-128504-11	G30S	Total Recoverable	Water	6020A	387019
500-128504-11	G30S	Total Recoverable	Water	6020A	387019
MB 500-386818/1-A	Method Blank	Total Recoverable	Water	6020A	386818
MB 500-387019/1-A	Method Blank	Total Recoverable	Water	6020A	387019
LCS 500-386818/2-A	Lab Control Sample	Total Recoverable	Water	6020A	386818
LCS 500-387019/2-A	Lab Control Sample	Total Recoverable	Water	6020A	387019

Analysis Batch: 387421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-9	R08S	Total/NA	Water	7470A	387094
500-128504-10	R32S	Total/NA	Water	7470A	387094
500-128504-11	G30S	Total/NA	Water	7470A	387094
MB 500-387094/12-A	Method Blank	Total/NA	Water	7470A	387094
LCS 500-387094/13-A	Lab Control Sample	Total/NA	Water	7470A	387094

General Chemistry

Analysis Batch: 386749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 386749 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-8	G44S	Total/NA	Water	SM 4500 Cl- E	
MB 500-386749/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-386749/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 386988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	SM 2540C	
500-128504-2	G46S	Total/NA	Water	SM 2540C	
MB 500-386988/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-386988/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 387160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-3	G48S	Total/NA	Water	SM 2540C	
500-128504-4	G47S	Total/NA	Water	SM 2540C	
500-128504-5	DUP	Total/NA	Water	SM 2540C	
500-128504-6	G45S	Total/NA	Water	SM 2540C	
MB 500-387160/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-387160/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-128504-3 DU	G48S	Total/NA	Water	SM 2540C	

Analysis Batch: 387294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total/NA	Water	SM 2540C	
500-128504-8	G44S	Total/NA	Water	SM 2540C	
MB 500-387294/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-387294/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 387448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	SM 4500 Cl- E	
500-128504-2	G46S	Total/NA	Water	SM 4500 Cl- E	
500-128504-3	G48S	Total/NA	Water	SM 4500 Cl- E	
500-128504-4	G47S	Total/NA	Water	SM 4500 Cl- E	
500-128504-5	DUP	Total/NA	Water	SM 4500 Cl- E	
500-128504-6	G45S	Total/NA	Water	SM 4500 Cl- E	
MB 500-387448/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-387448/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 387814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-9	R08S	Total/NA	Water	SM 2540C	
500-128504-10	R32S	Total/NA	Water	SM 2540C	
500-128504-11	G30S	Total/NA	Water	SM 2540C	
MB 500-387814/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-387814/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 388269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	SM 4500 SO4 E	
500-128504-2	G46S	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 388269 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-3	G48S	Total/NA	Water	SM 4500 SO4 E	
500-128504-4	G47S	Total/NA	Water	SM 4500 SO4 E	
500-128504-5	DUP	Total/NA	Water	SM 4500 SO4 E	
500-128504-6	G45S	Total/NA	Water	SM 4500 SO4 E	
500-128504-7	G20S	Total/NA	Water	SM 4500 SO4 E	
500-128504-8	G44S	Total/NA	Water	SM 4500 SO4 E	
500-128504-9	R08S	Total/NA	Water	SM 4500 SO4 E	
500-128504-10	R32S	Total/NA	Water	SM 4500 SO4 E	
500-128504-11	G30S	Total/NA	Water	SM 4500 SO4 E	
MB 500-388269/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-388269/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-128504-1 MS	T03S	Total/NA	Water	SM 4500 SO4 E	
500-128504-1 MSD	T03S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 388358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-9	R08S	Total/NA	Water	SM 4500 Cl- E	
500-128504-10	R32S	Total/NA	Water	SM 4500 Cl- E	
500-128504-11	G30S	Total/NA	Water	SM 4500 Cl- E	
MB 500-388358/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-388358/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 388897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	SM 4500 F C	
500-128504-2	G46S	Total/NA	Water	SM 4500 F C	
500-128504-3	G48S	Total/NA	Water	SM 4500 F C	
500-128504-4	G47S	Total/NA	Water	SM 4500 F C	
500-128504-5	DUP	Total/NA	Water	SM 4500 F C	
500-128504-6	G45S	Total/NA	Water	SM 4500 F C	
500-128504-7	G20S	Total/NA	Water	SM 4500 F C	
500-128504-8	G44S	Total/NA	Water	SM 4500 F C	
500-128504-9	R08S	Total/NA	Water	SM 4500 F C	
500-128504-10	R32S	Total/NA	Water	SM 4500 F C	
500-128504-11	G30S	Total/NA	Water	SM 4500 F C	
MB 500-388897/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-388897/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-128504-1 MS	T03S	Total/NA	Water	SM 4500 F C	
500-128504-1 MSD	T03S	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 387497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	Field Sampling	
500-128504-2	G46S	Total/NA	Water	Field Sampling	
500-128504-3	G48S	Total/NA	Water	Field Sampling	
500-128504-4	G47S	Total/NA	Water	Field Sampling	
500-128504-5	DUP	Total/NA	Water	Field Sampling	
500-128504-6	G45S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 387497 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total/NA	Water	Field Sampling	
500-128504-8	G44S	Total/NA	Water	Field Sampling	
500-128504-9	R08S	Total/NA	Water	Field Sampling	
500-128504-10	R32S	Total/NA	Water	Field Sampling	
500-128504-11	G30S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-386426/1-A
Matrix: Water
Analysis Batch: 386625

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/23/17 08:50	05/23/17 19:03	1

Lab Sample ID: LCS 500-386426/2-A
Matrix: Water
Analysis Batch: 386625

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.549		mg/L		110	80 - 120

Lab Sample ID: 500-128504-1 MS
Matrix: Water
Analysis Batch: 386625

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.019		0.500	0.575		mg/L		111	75 - 125

Lab Sample ID: 500-128504-1 MSD
Matrix: Water
Analysis Batch: 386625

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.019		0.500	0.585		mg/L		113	75 - 125	2	20

Lab Sample ID: 500-128504-1 DU
Matrix: Water
Analysis Batch: 386625

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.019		0.0176		mg/L		6	20

Lab Sample ID: MB 500-386596/1-A
Matrix: Water
Analysis Batch: 386777

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386596

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/24/17 08:10	05/24/17 16:25	1

Lab Sample ID: LCS 500-386596/2-A
Matrix: Water
Analysis Batch: 386777

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.519		mg/L		104	80 - 120

Lab Sample ID: MB 500-386818/1-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386818

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/25/17 08:40	05/25/17 20:56	1

Lab Sample ID: LCS 500-386818/2-A
Matrix: Water
Analysis Batch: 387030

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.519		mg/L		104	80 - 120

Lab Sample ID: MB 500-387019/1-A
Matrix: Water
Analysis Batch: 387183

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 387019

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/26/17 08:34	05/26/17 22:54	1

Lab Sample ID: LCS 500-387019/2-A
Matrix: Water
Analysis Batch: 387183

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 387019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.512		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-386426/1-A
Matrix: Water
Analysis Batch: 386849

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/23/17 08:50	05/24/17 18:00	1
Arsenic	<0.0010		0.0010		mg/L		05/23/17 08:50	05/24/17 18:00	1
Barium	0.00291		0.0025		mg/L		05/23/17 08:50	05/24/17 18:00	1
Cadmium	<0.00050		0.00050		mg/L		05/23/17 08:50	05/24/17 18:00	1
Calcium	<0.20		0.20		mg/L		05/23/17 08:50	05/24/17 18:00	1
Chromium	<0.0050		0.0050		mg/L		05/23/17 08:50	05/24/17 18:00	1
Cobalt	<0.0010		0.0010		mg/L		05/23/17 08:50	05/24/17 18:00	1
Lead	<0.00050		0.00050		mg/L		05/23/17 08:50	05/24/17 18:00	1
Molybdenum	<0.0050		0.0050		mg/L		05/23/17 08:50	05/24/17 18:00	1
Selenium	<0.0025		0.0025		mg/L		05/23/17 08:50	05/24/17 18:00	1
Thallium	<0.0020		0.0020		mg/L		05/23/17 08:50	05/24/17 18:00	1

Lab Sample ID: MB 500-386426/1-A
Matrix: Water
Analysis Batch: 387010

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/23/17 08:50	05/25/17 18:50	1

Lab Sample ID: MB 500-386426/1-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010	^	0.0010		mg/L		05/23/17 08:50	05/26/17 11:53	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-386426/2-A
Matrix: Water
Analysis Batch: 386849

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.531		mg/L		106	80 - 120
Arsenic	0.100	0.0986		mg/L		99	80 - 120
Barium	2.00	2.06		mg/L		103	80 - 120
Cadmium	0.0500	0.0536		mg/L		107	80 - 120
Calcium	10.0	9.05		mg/L		90	80 - 120
Chromium	0.200	0.206		mg/L		103	80 - 120
Cobalt	0.500	0.519		mg/L		104	80 - 120
Lead	0.100	0.112		mg/L		112	80 - 120
Molybdenum	1.00	1.04		mg/L		104	80 - 120
Selenium	0.100	0.0986		mg/L		99	80 - 120
Thallium	0.100	0.113		mg/L		113	80 - 120

Lab Sample ID: LCS 500-386426/2-A
Matrix: Water
Analysis Batch: 387010

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.07		mg/L		107	80 - 120

Lab Sample ID: LCS 500-386426/2-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0593	^	mg/L		119	80 - 120

Lab Sample ID: 500-128504-1 MS
Matrix: Water
Analysis Batch: 386849

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.542		mg/L		108	75 - 125
Arsenic	0.0017		0.100	0.104		mg/L		102	75 - 125
Barium	0.088	B	2.00	2.14		mg/L		103	75 - 125
Cadmium	<0.00050		0.0500	0.0535		mg/L		107	75 - 125
Calcium	110		10.0	107	4	mg/L		12	75 - 125
Chromium	<0.0050		0.200	0.206		mg/L		102	75 - 125
Cobalt	0.0015		0.500	0.502		mg/L		100	75 - 125
Lead	0.0023		0.100	0.111		mg/L		109	75 - 125
Molybdenum	0.13		1.00	1.14		mg/L		101	75 - 125
Selenium	<0.0025		0.100	0.104		mg/L		104	75 - 125
Thallium	<0.0020		0.100	0.111		mg/L		111	75 - 125

Lab Sample ID: 500-128504-1 MS
Matrix: Water
Analysis Batch: 387010

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.4		1.00	2.32		mg/L		89	75 - 125

Lab Sample ID: 500-128504-1 MS
Matrix: Water
Analysis Batch: 387359

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Beryllium	<0.0010	^	0.0500	0.0576	^	mg/L		115	75 - 125		

Lab Sample ID: 500-128504-1 MSD
Matrix: Water
Analysis Batch: 386849

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.537		mg/L		107	75 - 125	1	20
Arsenic	0.0017		0.100	0.104		mg/L		102	75 - 125	0	20
Barium	0.088	B	2.00	2.13		mg/L		102	75 - 125	1	20
Cadmium	<0.00050		0.0500	0.0535		mg/L		107	75 - 125	0	20
Calcium	110		10.0	115	4	mg/L		95	75 - 125	7	20
Chromium	<0.0050		0.200	0.209		mg/L		104	75 - 125	1	20
Cobalt	0.0015		0.500	0.509		mg/L		102	75 - 125	1	20
Lead	0.0023		0.100	0.110		mg/L		107	75 - 125	1	20
Molybdenum	0.13		1.00	1.14		mg/L		102	75 - 125	1	20
Selenium	<0.0025		0.100	0.103		mg/L		103	75 - 125	0	20
Thallium	<0.0020		0.100	0.110		mg/L		110	75 - 125	1	20

Lab Sample ID: 500-128504-1 MSD
Matrix: Water
Analysis Batch: 387010

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.4		1.00	2.42		mg/L		99	75 - 125	4	20

Lab Sample ID: 500-128504-1 MSD
Matrix: Water
Analysis Batch: 387359

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Beryllium	<0.0010	^	0.0500	0.0552	^	mg/L		110	75 - 125	4	20

Lab Sample ID: 500-128504-1 DU
Matrix: Water
Analysis Batch: 386849

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.0017		0.00149		mg/L		11	20
Barium	0.088	B	0.0820		mg/L		7	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	110		99.9		mg/L		5	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	0.0015		0.00134		mg/L		13	20
Lead	0.0023		<0.00050		mg/L		NC	20
Molybdenum	0.13		0.118		mg/L		6	20
Selenium	<0.0025		<0.0025		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-128504-1 DU
Matrix: Water
Analysis Batch: 387010

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Boron	1.4			1.37		mg/L				4	20

Lab Sample ID: 500-128504-1 DU
Matrix: Water
Analysis Batch: 387359

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 386426

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Beryllium	<0.0010	^		<0.0010	^	mg/L				NC	20

Lab Sample ID: MB 500-386596/1-A
Matrix: Water
Analysis Batch: 386849

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386596

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/24/17 08:10	05/24/17 19:23	1
Arsenic	<0.0010		0.0010		mg/L		05/24/17 08:10	05/24/17 19:23	1
Barium	<0.0025		0.0025		mg/L		05/24/17 08:10	05/24/17 19:23	1
Cadmium	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:23	1
Calcium	<0.20		0.20		mg/L		05/24/17 08:10	05/24/17 19:23	1
Chromium	<0.0050		0.0050		mg/L		05/24/17 08:10	05/24/17 19:23	1
Cobalt	<0.0010		0.0010		mg/L		05/24/17 08:10	05/24/17 19:23	1
Lead	<0.00050		0.00050		mg/L		05/24/17 08:10	05/24/17 19:23	1
Molybdenum	<0.0050		0.0050		mg/L		05/24/17 08:10	05/24/17 19:23	1
Selenium	<0.0025		0.0025		mg/L		05/24/17 08:10	05/24/17 19:23	1
Thallium	<0.0020		0.0020		mg/L		05/24/17 08:10	05/24/17 19:23	1

Lab Sample ID: MB 500-386596/1-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386596

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010		0.0010		mg/L		05/24/17 08:10	05/26/17 11:03	1
Boron	<0.050		0.050		mg/L		05/24/17 08:10	05/26/17 11:03	1

Lab Sample ID: LCS 500-386596/2-A
Matrix: Water
Analysis Batch: 386849

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386596

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony			0.500	0.502		mg/L		100	80 - 120		
Arsenic			0.100	0.0935		mg/L		94	80 - 120		
Barium			2.00	1.96		mg/L		98	80 - 120		
Cadmium			0.0500	0.0508		mg/L		102	80 - 120		
Calcium			10.0	8.77		mg/L		88	80 - 120		
Chromium			0.200	0.200		mg/L		100	80 - 120		
Cobalt			0.500	0.502		mg/L		100	80 - 120		
Lead			0.100	0.107		mg/L		107	80 - 120		
Molybdenum			1.00	0.985		mg/L		99	80 - 120		
Selenium			0.100	0.0953		mg/L		95	80 - 120		

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-386596/2-A
Matrix: Water
Analysis Batch: 386849

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Thallium	0.100	0.107		mg/L		107	80 - 120

Lab Sample ID: LCS 500-386596/2-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0559		mg/L		112	80 - 120
Boron	1.00	1.05		mg/L		105	80 - 120

Lab Sample ID: MB 500-386818/1-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386818

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/25/17 08:40	05/26/17 14:03	1
Arsenic	<0.0010		0.0010		mg/L		05/25/17 08:40	05/26/17 14:03	1
Barium	<0.0025		0.0025		mg/L		05/25/17 08:40	05/26/17 14:03	1
Cadmium	<0.00050		0.00050		mg/L		05/25/17 08:40	05/26/17 14:03	1
Calcium	<0.20		0.20		mg/L		05/25/17 08:40	05/26/17 14:03	1
Chromium	<0.0050		0.0050		mg/L		05/25/17 08:40	05/26/17 14:03	1
Cobalt	<0.0010		0.0010		mg/L		05/25/17 08:40	05/26/17 14:03	1
Lead	<0.00050		0.00050		mg/L		05/25/17 08:40	05/26/17 14:03	1
Molybdenum	<0.0050		0.0050		mg/L		05/25/17 08:40	05/26/17 14:03	1
Selenium	<0.0025		0.0025		mg/L		05/25/17 08:40	05/26/17 14:03	1
Thallium	<0.0020		0.0020		mg/L		05/25/17 08:40	05/26/17 14:03	1

Lab Sample ID: MB 500-386818/1-A
Matrix: Water
Analysis Batch: 387419

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 386818

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010		0.0010		mg/L		05/25/17 08:40	05/30/17 12:09	1
Boron	<0.050		0.050		mg/L		05/25/17 08:40	05/30/17 12:09	1

Lab Sample ID: LCS 500-386818/2-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.494		mg/L		99	80 - 120
Arsenic	0.100	0.0973		mg/L		97	80 - 120
Barium	2.00	2.00		mg/L		100	80 - 120
Cadmium	0.0500	0.0503		mg/L		101	80 - 120
Calcium	10.0	10.4		mg/L		104	80 - 120
Chromium	0.200	0.216		mg/L		108	80 - 120
Cobalt	0.500	0.561		mg/L		112	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	0.948		mg/L		95	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-386818/2-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.100	0.0940		mg/L		94	80 - 120
Thallium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LCS 500-386818/2-A
Matrix: Water
Analysis Batch: 387419

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 386818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0522		mg/L		104	80 - 120
Boron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: MB 500-387019/1-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 387019

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/26/17 08:34	05/26/17 16:27	1
Arsenic	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 16:27	1
Barium	<0.0025		0.0025		mg/L		05/26/17 08:34	05/26/17 16:27	1
Cadmium	<0.00050		0.00050		mg/L		05/26/17 08:34	05/26/17 16:27	1
Calcium	<0.20		0.20		mg/L		05/26/17 08:34	05/26/17 16:27	1
Chromium	<0.0050		0.0050		mg/L		05/26/17 08:34	05/26/17 16:27	1
Cobalt	<0.0010		0.0010		mg/L		05/26/17 08:34	05/26/17 16:27	1
Lead	<0.00050		0.00050		mg/L		05/26/17 08:34	05/26/17 16:27	1
Molybdenum	<0.0050		0.0050		mg/L		05/26/17 08:34	05/26/17 16:27	1
Selenium	<0.0025		0.0025		mg/L		05/26/17 08:34	05/26/17 16:27	1
Thallium	<0.0020		0.0020		mg/L		05/26/17 08:34	05/26/17 16:27	1

Lab Sample ID: MB 500-387019/1-A
Matrix: Water
Analysis Batch: 387419

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 387019

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010		0.0010		mg/L		05/26/17 08:34	05/30/17 12:24	1
Boron	<0.050		0.050		mg/L		05/26/17 08:34	05/30/17 12:24	1

Lab Sample ID: LCS 500-387019/2-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 387019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.493		mg/L		99	80 - 120
Arsenic	0.100	0.0958		mg/L		96	80 - 120
Barium	2.00	2.01		mg/L		101	80 - 120
Cadmium	0.0500	0.0493		mg/L		99	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Chromium	0.200	0.206		mg/L		103	80 - 120
Cobalt	0.500	0.543		mg/L		109	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-387019/2-A
Matrix: Water
Analysis Batch: 387359

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 387019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	1.00	0.930		mg/L		93	80 - 120
Selenium	0.100	0.0934		mg/L		93	80 - 120
Thallium	0.100	0.109		mg/L		109	80 - 120

Lab Sample ID: LCS 500-387019/2-A
Matrix: Water
Analysis Batch: 387419

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 387019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Beryllium	0.0500	0.0509		mg/L		102	80 - 120
Boron	1.00	1.02		mg/L		102	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-386479/12-A
Matrix: Water
Analysis Batch: 386672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/23/17 12:45	05/24/17 11:49	1

Lab Sample ID: LCS 500-386479/13-A
Matrix: Water
Analysis Batch: 386672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00170		mg/L		85	80 - 120

Lab Sample ID: MB 500-386660/12-A
Matrix: Water
Analysis Batch: 386852

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386660

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/24/17 11:45	05/25/17 09:10	1

Lab Sample ID: LCS 500-386660/13-A
Matrix: Water
Analysis Batch: 386852

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386660

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00211		mg/L		105	80 - 120

Lab Sample ID: MB 500-386882/12-A
Matrix: Water
Analysis Batch: 387103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 386882

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/17 12:15	05/26/17 09:59	1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 500-386882/13-A
Matrix: Water
Analysis Batch: 387103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 386882

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00214		mg/L		107	80 - 120

Lab Sample ID: MB 500-387094/12-A
Matrix: Water
Analysis Batch: 387421

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 387094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/26/17 12:30	05/30/17 14:02	1

Lab Sample ID: LCS 500-387094/13-A
Matrix: Water
Analysis Batch: 387421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 387094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00170		mg/L		85	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-386988/1
Matrix: Water
Analysis Batch: 386988

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/26/17 03:14	1

Lab Sample ID: LCS 500-386988/2
Matrix: Water
Analysis Batch: 386988

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	292		mg/L		117	80 - 120

Lab Sample ID: MB 500-387160/1
Matrix: Water
Analysis Batch: 387160

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/26/17 23:44	1

Lab Sample ID: LCS 500-387160/2
Matrix: Water
Analysis Batch: 387160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	284		mg/L		114	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 500-128504-3 DU
Matrix: Water
Analysis Batch: 387160

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1100			1090		mg/L				3	5

Lab Sample ID: MB 500-387294/1
Matrix: Water
Analysis Batch: 387294

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/29/17 16:53	1

Lab Sample ID: LCS 500-387294/2
Matrix: Water
Analysis Batch: 387294

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	264		mg/L		106	80 - 120		

Lab Sample ID: MB 500-387814/1
Matrix: Water
Analysis Batch: 387814

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/01/17 23:45	1

Lab Sample ID: LCS 500-387814/2
Matrix: Water
Analysis Batch: 387814

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	276		mg/L		110	80 - 120		

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-386749/12
Matrix: Water
Analysis Batch: 386749

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/24/17 19:45	1

Lab Sample ID: LCS 500-386749/13
Matrix: Water
Analysis Batch: 386749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	51.6		mg/L		103	80 - 120		

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: MB 500-387448/4
Matrix: Water
Analysis Batch: 387448

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/30/17 21:14	1

Lab Sample ID: LCS 500-387448/5
Matrix: Water
Analysis Batch: 387448

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.0		mg/L		106	80 - 120

Lab Sample ID: MB 500-388358/12
Matrix: Water
Analysis Batch: 388358

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/05/17 22:14	1

Lab Sample ID: LCS 500-388358/13
Matrix: Water
Analysis Batch: 388358

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	53.0		mg/L		106	80 - 120

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-388897/3
Matrix: Water
Analysis Batch: 388897

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			06/09/17 09:35	1

Lab Sample ID: LCS 500-388897/4
Matrix: Water
Analysis Batch: 388897

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: 500-128504-1 MS
Matrix: Water
Analysis Batch: 388897

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.23		5.00	5.44		mg/L		104	75 - 125

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 500-128504-1 MSD
Matrix: Water
Analysis Batch: 388897

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.23		5.00	5.46		mg/L		105	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-388269/3
Matrix: Water
Analysis Batch: 388269

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/06/17 04:34	1

Lab Sample ID: LCS 500-388269/4
Matrix: Water
Analysis Batch: 388269

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	20.7		mg/L		103	80 - 120		

Lab Sample ID: 500-128504-1 MS
Matrix: Water
Analysis Batch: 388269

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	160		400	542		mg/L		96	75 - 125		

Lab Sample ID: 500-128504-1 MSD
Matrix: Water
Analysis Batch: 388269

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	160		400	545		mg/L		97	75 - 125	1	20

TestAmerica

THE LEADER IN ENVIRONMENTAL

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Phone: 708.534.5200 Fax: 708.534

500-128504 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 26-72.7

Client: Midwest Generation EME LLC
Client Project #:
Project Name:
Project Location/State:
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Total Metals	Radium 226/228	Cl, F, SO4, TDS							
1		T035	05/22/17	1308	5	W		✓	✓	✓							
2		G465	05/22/17	1505	5	W		✓	✓	✓							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/22/17	1712	[signature]	TA-CAL	5/23/17	0710
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124 (500-128504)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 4.6=4.7

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR E/W
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Long

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	Y						Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
3		G485	05/23/17	0950	5	W		—	—	—						
4		G475	05/23/17	1110	5	W		—	—	—						
5		DUP	05/23/17	1110	5	W		—	—	—						DUP of G475
6		G455	05/23/17	1426	5	W		—	—	—						

Preservative Key
1 HCl
6
7.
8. 500-128504 COC
9.

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/23/17	1550	[signature]	TALM	05/23/17	15:50
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.1-3.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
7		G20S	05/24/17	0925	4	W		—	—	—						
8		G44S	05/24/17	1329	5	W		—	—	—						

Key
°
) 4°
4°
4°
to 4°

500-128504 COC

9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DL	TAL	05/24/17	1530	David Savage	TALH	05/24/17	1530
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

6/9/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler:

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L, Andrew N
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS
9		R08S	05/25/17	0945	5	W		1	1	1
10		R32S	05/25/17	1119	5	W		—	—	—
11		G30S	05/25/17	1258	5	W		—	—	—

Preservative Key
1. HCL, Cool to 4°
2. H2SO4 Cool to 4°
3. ol to 4°
4. ol to 4°
Cool to 4°

500-128504 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	05/25/17	1535	[illegible] AS 05/25/17	TAMI	05/25/17	1535
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TT
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-508 (1209)

6/9/2017

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-128504-1

Login Number: 128504
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7, 4.7,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client Sample ID: T03S

Lab Sample ID: 500-128504-1

Date Collected: 05/22/17 13:08

Matrix: Water

Date Received: 05/22/17 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	386625	05/23/17 19:10	PJ1	TAL CHI
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	386849	05/24/17 18:07	FXG	TAL CHI
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	387010	05/25/17 18:58	PFK	TAL CHI
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 12:01	FXG	TAL CHI
Total/NA	Prep	7470A			386479	05/23/17 12:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	386672	05/24/17 11:54	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	386988	05/26/17 03:44	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	387448	05/30/17 21:48	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 09:41	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	388269		CLB	TAL CHI
					(Start)	06/06/17 04:36		
					(End)	06/06/17 04:37		
Total/NA	Analysis	Field Sampling		1	387497	05/22/17 13:08	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-128504-2

Date Collected: 05/22/17 15:05

Matrix: Water

Date Received: 05/22/17 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	386625	05/23/17 19:38	PJ1	TAL CHI
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	386849	05/24/17 18:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	387010	05/25/17 19:17	PFK	TAL CHI
Total Recoverable	Prep	3005A			386426	05/23/17 08:50	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 12:28	FXG	TAL CHI
Total/NA	Prep	7470A			386479	05/23/17 12:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	386672	05/24/17 11:55	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	386988	05/26/17 03:47	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	387448	05/30/17 21:49	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 09:50	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	388269		CLB	TAL CHI
					(Start)	06/06/17 04:39		
					(End)	06/06/17 04:40		
Total/NA	Analysis	Field Sampling		1	387497	05/22/17 15:05	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-1

Client Sample ID: G48S

Date Collected: 05/23/17 09:50
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6010C		1	386777	05/24/17 16:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	386849	05/24/17 19:31	FXG	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		20	387359	05/26/17 11:11	FXG	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 12:31	FXG	TAL CHI
Total/NA	Prep	7470A			386660	05/24/17 11:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	386852	05/25/17 09:18	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	387160	05/26/17 23:51	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	387448	05/30/17 21:49	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 09:54	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	388269		CLB	TAL CHI
					(Start)	06/06/17 04:40		
					(End)	06/06/17 04:41		
Total/NA	Analysis	Field Sampling		1	387497	05/23/17 09:50	JVB	TAL CHI

Client Sample ID: G47S

Date Collected: 05/23/17 11:10
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6010C		1	386777	05/24/17 16:37	PJ1	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	386849	05/24/17 19:35	FXG	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		100	387359	05/26/17 11:15	FXG	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 12:35	FXG	TAL CHI
Total/NA	Prep	7470A			386660	05/24/17 11:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	386852	05/25/17 09:23	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	387160	05/26/17 23:56	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	387448	05/30/17 21:50	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 09:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	388269		CLB	TAL CHI
					(Start)	06/06/17 04:41		
					(End)	06/06/17 04:42		
Total/NA	Analysis	Field Sampling		1	387497	05/23/17 11:10	JVB	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-128504-5

Date Collected: 05/23/17 11:00

Matrix: Water

Date Received: 05/23/17 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6010C		1	386777	05/24/17 16:41	PJ1	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	386849	05/24/17 19:38	FXG	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		100	387359	05/26/17 11:18	FXG	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 12:39	FXG	TAL CHI
Total/NA	Prep	7470A			386660	05/24/17 11:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	386852	05/25/17 09:24	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	387160	05/26/17 23:59	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	387448	05/30/17 21:50	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 10:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	388269	(Start) 06/06/17 04:42 (End) 06/06/17 04:43	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	387497	05/23/17 11:00	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-128504-6

Date Collected: 05/23/17 14:26

Matrix: Water

Date Received: 05/23/17 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6010C		1	386777	05/24/17 16:45	PJ1	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	386849	05/24/17 19:42	FXG	TAL CHI
Total Recoverable	Prep	3005A			386596	05/24/17 08:10	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 11:22	FXG	TAL CHI
Total/NA	Prep	7470A			386660	05/24/17 11:45	MJD	TAL CHI
Total/NA	Analysis	7470A		1	386852	05/25/17 09:26	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	387160	05/27/17 00:02	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	387448	05/30/17 21:51	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 10:04	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	388269	(Start) 06/06/17 04:43 (End) 06/06/17 04:44	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	387497	05/23/17 14:26	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-1

Client Sample ID: G20S

Date Collected: 05/24/17 09:25
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6010C		1	387030	05/25/17 21:04	KML	TAL CHI
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 14:19	FXG	TAL CHI
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6020A		5	387419	05/30/17 12:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387419	05/30/17 14:31	FXG	TAL CHI
Total/NA	Prep	7470A			386882	05/25/17 12:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	387103	05/26/17 10:11	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	387294	05/29/17 17:24	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	386749	05/24/17 20:00	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 10:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	388269		CLB	TAL CHI
					(Start)	06/06/17 04:46		
					(End)	06/06/17 04:47		
Total/NA	Analysis	Field Sampling		1	387497	05/24/17 09:25	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 05/24/17 13:29
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6010C		1	387030	05/25/17 21:09	KML	TAL CHI
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 14:23	FXG	TAL CHI
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6020A		5	387419	05/30/17 12:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			386818	05/25/17 08:40	EEN	TAL CHI
Total Recoverable	Analysis	6020A		1	387419	05/30/17 14:35	FXG	TAL CHI
Total/NA	Prep	7470A			386882	05/25/17 12:15	MJD	TAL CHI
Total/NA	Analysis	7470A		1	387103	05/26/17 10:13	MJD	TAL CHI
Total/NA	Analysis	SM 2540C		1	387294	05/29/17 17:26	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	386749	05/24/17 20:00	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 10:20	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	388269		CLB	TAL CHI
					(Start)	06/06/17 04:47		
					(End)	06/06/17 04:48		
Total/NA	Analysis	Field Sampling		1	387497	05/24/17 13:29	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-128504-9

Date Collected: 05/25/17 09:45

Matrix: Water

Date Received: 05/25/17 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	387183	05/26/17 23:02	KML	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 16:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	387419	05/30/17 12:32	FXG	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387419	05/30/17 14:39	FXG	TAL CHI
Total/NA	Prep	7470A			387094	05/26/17 12:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	387421	05/30/17 14:08	PFK	TAL CHI
Total/NA	Analysis	SM 2540C		1	387814	06/01/17 23:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	388358	06/05/17 23:17	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 10:24	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	388269		CLB	TAL CHI
					(Start)	06/06/17 04:48		
					(End)	06/06/17 04:49		
Total/NA	Analysis	Field Sampling		1	387497	05/25/17 09:45	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-128504-10

Date Collected: 05/25/17 11:19

Matrix: Water

Date Received: 05/25/17 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	387183	05/26/17 23:06	KML	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 16:59	FXG	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	387419	05/30/17 12:36	FXG	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387419	05/30/17 14:43	FXG	TAL CHI
Total/NA	Prep	7470A			387094	05/26/17 12:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	387421	05/30/17 14:16	PFK	TAL CHI
Total/NA	Analysis	SM 2540C		1	387814	06/01/17 23:52	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	388358	06/05/17 23:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 10:27	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	388269		CLB	TAL CHI
					(Start)	06/06/17 04:49		
					(End)	06/06/17 04:50		
Total/NA	Analysis	Field Sampling		1	387497	05/25/17 11:19	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-1

Client Sample ID: G30S

Date Collected: 05/25/17 12:58
Date Received: 05/25/17 15:35

Lab Sample ID: 500-128504-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	387183	05/26/17 23:10	KML	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387359	05/26/17 17:03	FXG	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	387419	05/30/17 12:39	FXG	TAL CHI
Total Recoverable	Prep	3005A			387019	05/26/17 08:34	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	387419	05/30/17 14:47	FXG	TAL CHI
Total/NA	Prep	7470A			387094	05/26/17 12:30	MJD	TAL CHI
Total/NA	Analysis	7470A		1	387421	05/30/17 14:17	PFK	TAL CHI
Total/NA	Analysis	SM 2540C		1	387814	06/01/17 23:55	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	388358	06/05/17 23:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	388897	06/09/17 10:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	388269		CLB	TAL CHI
					(Start)	06/06/17 04:50		
					(End)	06/06/17 04:51		
Total/NA	Analysis	Field Sampling		1	387497	05/25/17 12:58	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/22/17 Start Purge: 1250 (2400 Hr. Clock) End Purge: 1308

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.65 (ft./msl)

Water Level 131.87 (ft.)

Ground Water Elev. 497.78 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.28	7.25	7.25	(std.)
SC	1026	1025	1025	(umhos/cm)
Temp.	14.58	14.52	14.52	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 71°F, Sunny, SW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 131.87 - 3.08 = 128.79 (ft.)

Levels were taken on 05/22/17 @ 1240

* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/22/17 Start Purge: 1445 (2400 Hr. Clock) End Purge: 1505

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 98.43 (ft.)

Ground Water Elev. 502.89 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.33	7.37	7.37	(std.)
SC	1,242	1,250	1,250	(umhos/cm)
Temp.	17.28	17.20	17.20	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 74°F, Partly Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 98.43 - 2.70 = 95.73 (ft.)

Levels were taken on 05/22/17 @ 1435

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/23/17 Start Purge: 0930 (2400 Hr. Clock) End Purge: 0950

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 100.06 (ft.)
Ground Water Elev. 520.71 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.47	9.49	9.49	(std.)
SC	1510	1510	1510	(umhos/cm)
Temp.	12.64	12.61	12.61	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 59°F, Rain Shower, SW wind 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 100.06 - 2.45 = 97.61 (ft)
Levels were taken on 05/23/17 @ 0920.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-4

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/23/17 Start Purge: 1050 (2400 Hr. Clock) End Purge: 1110

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.50 (ft)

Ref. Measuring Pt. TIC

Well Elevation *612.32 (ft./msl)

Water Level 92.61 (ft.)

Ground Water Elev. 519.71 (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	10.01	10.03	10.03	(std.)
SC	2,420	2,420	2,420	(umhos/cm)
Temp.	13.92	13.87	13.87	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 59°F, Rain, SW winds @ 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 92.61 - 2.50 = 90.11 (ft.)

Levels were taken on 05/23/17 @ 1045.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S Dup
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 4.0 (inches) 1st 2nd *Final*

Stick Up 2.50 (ft) pH _____ (std.)

Ref. Measuring Pt. TIC SC _____ (umhos/cm)

Well Elevation *612.32 (ft./msl) Temp. _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @

* Dup sampled on 05/23/17 @ 1110

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/23/17 Start Purge: 1410 (2400 Hr. Clock) End Purge: 1426

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

	1st	2nd	Final	
pH	7.30	7.30	7.30	(std.)
SC	903	893	893	(umhos/cm)
Temp.	13.62	13.60	13.60	(°C)

Well Diameter 2.0 (inches)

Stick Up 2.97 (ft)

Ref. Measuring Pt. TIC

Well Elevation *603.31 (ft./msl)

Water Level 63.07 (ft.)

Ground Water Elev. 540.24 (ft./msl)

Well Bottom Elevation *471.05 (ft./msl)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 62°F, Rain Shower, SW winds 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 63.07 - 2.97 = 60.10 (ft.)

Levels were taken on 05/23/17 @ 1405.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-7

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/24/17 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0925

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 46.06 (ft.)
Ground Water Elev. 534.27 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.42	7.45	7.45	(std.)
SC	608	610	610	(umhos/cm)
Temp.	14.31	14.34	14.34	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 58°F, Cloudy, NE winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 46.06 - 2.78 = 43.28 (ft.)
Levels were taken on 05/24/17 @ 0855.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/24/17 Start Purge: 1315 (2400 Hr. Clock) End Purge: 1329

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 82.14 (ft.)
Ground Water Elev. 504.55 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.05	7.08	7.08	(std.)
SC	854	858	858	(umhos/cm)
Temp.	13.94	13.82	13.82	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 60°F, Cloudy, N Winds 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 82.14 - 2.18 = 79.96 (ft.)
Levels were taken on 05/24/17 @ 1305.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/25/17 Start Purge: 0930 (2400 Hr. Clock) End Purge: 0945

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.55 (ft)

Ref. Measuring Pt. TIC

Well Elevation *578.65 (ft./msl)

Water Level 67.56 (ft.)

Ground Water Elev. 511.09 (ft./msl)

Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.56	7.56	7.56	(std.)
SC	975	974	974	(umhos/cm)
Temp.	13.97	13.88	13.88	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 60°F, Cloudy, N winds e 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)

Depth To Water from L.S. = 67.56 - 2.55 = 65.01 (ft.)

Levels were taken on 05/25/17 @ 0920.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/25/17 Start Purge: 1100 (2400 Hr. Clock) End Purge: 1119

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.03 (ft)

Ref. Measuring Pt. TIC

Well Elevation *536.81 (ft./msl)

Water Level 19.33 (ft.)

Ground Water Elev. 517.48 (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.52	7.54	7.54	(std.)
SC	721	714	714	(umhos/cm)
Temp.	11.64	11.67	11.67	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 61°F, Cloudy, NW winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 19.33 - 2.03 = 17.30 (ft.)

Levels were taken on 05/25/17 @ 1050.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-128504-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/25/17 Start Purge: 1240 (2400 Hr. Clock) End Purge: 1258

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 1.69 (ft.)
Ground Water Elev. ~~522.09~~ 522.71 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.65	7.67	7.67	(std.)
SC	1,463	1,454	1,454	(umhos/cm)
Temp.	13.07	13.26	13.26	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 63°F, Cloudy, NW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.69 - 2.31 = -0.62 (ft.)
Levels were taken on 05/25/17 @ 1230

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-128504-2
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
6/22/2017 3:20:44 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-128504-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-128504-2

Comments
No additional comments.

Receipt
The samples were received on 5/22/2017 5:12 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 2.7º C, 3.2º C and 4.7º C.

RAD
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-128504-1	T03S	Water	05/22/17 13:08	05/22/17 17:12
500-128504-2	G46S	Water	05/22/17 15:05	05/22/17 17:12
500-128504-3	G48S	Water	05/23/17 09:50	05/23/17 15:50
500-128504-4	G47S	Water	05/23/17 11:10	05/23/17 15:50
500-128504-5	DUP	Water	05/23/17 11:00	05/23/17 15:50
500-128504-6	G45S	Water	05/23/17 14:26	05/23/17 15:50
500-128504-7	G20S	Water	05/24/17 09:25	05/24/17 15:30
500-128504-8	G44S	Water	05/24/17 13:29	05/24/17 15:30
500-128504-9	R08S	Water	05/25/17 09:45	05/25/17 15:35
500-128504-10	R32S	Water	05/25/17 11:19	05/25/17 15:35
500-128504-11	G30S	Water	05/25/17 12:58	05/25/17 15:35

Client Sample ID: T03S

Date Collected: 05/22/17 13:08
Date Received: 05/22/17 17:12

Lab Sample ID: 500-128504-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.642		0.131	0.143	1.00	0.0724	pCi/L	05/25/17 14:47	06/20/17 08:16	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/25/17 14:47*	*06/20/17 08:16*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.565		0.209	0.215	1.00	0.279	pCi/L	05/26/17 09:34	06/09/17 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*
Y Carrier	*86.7*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.21		0.246	0.258	5.00	0.279	pCi/L		06/22/17 12:56	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Client Sample ID: G46S
Date Collected: 05/22/17 15:05
Date Received: 05/22/17 17:12

Lab Sample ID: 500-128504-2
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.451**		0.117	0.124	1.00	0.0934	pCi/L	05/25/17 14:47	06/20/17 08:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*05/25/17 14:47*	*06/20/17 08:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.232	U	0.245	0.246	1.00	0.400	pCi/L	05/26/17 09:34	06/09/17 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*
Y Carrier	*76.3*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.683**		0.271	0.275	5.00	0.400	pCi/L		06/22/17 12:56	1

Client Sample ID: G48S

Date Collected: 05/23/17 09:50
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.472**		0.112	0.120	1.00	0.0651	pCi/L	05/25/17 14:47	06/20/17 08:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/25/17 14:47*	*06/20/17 08:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.189	U	0.195	0.196	1.00	0.317	pCi/L	05/26/17 09:34	06/09/17 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*
Y Carrier	*79.6*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.661**		0.225	0.230	5.00	0.317	pCi/L		06/22/17 12:56	1

Client Sample ID: G47S

Date Collected: 05/23/17 11:10
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.292		0.0923	0.0959	1.00	0.0657	pCi/L	05/25/17 14:47	06/20/17 08:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/25/17 14:47*	*06/20/17 08:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0165	U	0.202	0.202	1.00	0.361	pCi/L	05/26/17 09:34	06/09/17 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*
Y Carrier	*82.2*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.308	U	0.222	0.224	5.00	0.361	pCi/L		06/22/17 12:56	1

Client Sample ID: DUP

Date Collected: 05/23/17 11:00
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.284		0.0909	0.0945	1.00	0.0600	pCi/L	05/25/17 14:47	06/20/17 08:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*05/25/17 14:47*	*06/20/17 08:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.392		0.238	0.241	1.00	0.361	pCi/L	05/26/17 09:34	06/09/17 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*
Y Carrier	*78.9*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.677		0.255	0.259	5.00	0.361	pCi/L		06/22/17 12:56	1

Client Sample ID: G45S

Date Collected: 05/23/17 14:26
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-6

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.895		0.162	0.181	1.00	0.0801	pCi/L	05/25/17 14:47	06/20/17 08:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*05/25/17 14:47*	*06/20/17 08:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.502		0.224	0.229	1.00	0.310	pCi/L	05/26/17 09:34	06/09/17 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*
Y Carrier	*85.6*		*40 - 110*	*05/26/17 09:34*	*06/09/17 10:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.40		0.277	0.292	5.00	0.310	pCi/L		06/22/17 12:56	1

Client Sample ID: G20S

Date Collected: 05/24/17 09:25
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-7

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.21		0.210	0.236	1.00	0.127	pCi/L	05/31/17 10:11	06/22/17 08:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*05/31/17 10:11*	*06/22/17 08:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.942		0.289	0.302	1.00	0.368	pCi/L	05/31/17 10:56	06/13/17 14:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:24*	*1*
Y Carrier	*84.9*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.15		0.357	0.383	5.00	0.368	pCi/L		06/22/17 12:56	1

Client Sample ID: G44S

Date Collected: 05/24/17 13:29
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-8

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.507		0.140	0.147	1.00	0.102	pCi/L	05/31/17 10:11	06/22/17 08:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*05/31/17 10:11*	*06/22/17 08:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.511		0.288	0.291	1.00	0.437	pCi/L	05/31/17 10:56	06/13/17 14:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:25*	*1*
Y Carrier	*89.0*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.02		0.320	0.326	5.00	0.437	pCi/L		06/22/17 12:56	1

Client Sample ID: R08S

Date Collected: 05/25/17 09:45
Date Received: 05/25/17 15:35

Lab Sample ID: 500-128504-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.516**		0.147	0.154	1.00	0.127	pCi/L	05/31/17 10:11	06/22/17 08:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*40 - 110*	*05/31/17 10:11*	*06/22/17 08:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.304	U	0.275	0.276	1.00	0.444	pCi/L	06/14/17 14:29	06/19/17 13:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.5*		*40 - 110*	*06/14/17 14:29*	*06/19/17 13:53*	*1*
Y Carrier	*84.1*		*40 - 110*	*06/14/17 14:29*	*06/19/17 13:53*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.821**		0.312	0.316	5.00	0.444	pCi/L		06/22/17 12:56	1

Client Sample ID: R32S
Date Collected: 05/25/17 11:19
Date Received: 05/25/17 15:35

Lab Sample ID: 500-128504-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.59**		0.239	0.279	1.00	0.111	pCi/L	05/31/17 10:11	06/22/17 08:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*05/31/17 10:11*	*06/22/17 08:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.233	U	0.267	0.268	1.00	0.440	pCi/L	05/31/17 10:56	06/13/17 14:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:25*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.82**		0.359	0.387	5.00	0.440	pCi/L		06/22/17 12:56	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Client Sample ID: G30S
Date Collected: 05/25/17 12:58
Date Received: 05/25/17 15:35

Lab Sample ID: 500-128504-11
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.668		0.161	0.172	1.00	0.102	pCi/L	05/31/17 10:11	06/22/17 08:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.9*		*40 - 110*	*05/31/17 10:11*	*06/22/17 08:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.10		0.319	0.334	1.00	0.389	pCi/L	05/31/17 10:56	06/13/17 14:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.9*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:26*	*1*
Y Carrier	*86.0*		*40 - 110*	*05/31/17 10:56*	*06/13/17 14:26*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.76		0.357	0.376	5.00	0.389	pCi/L		06/22/17 12:56	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 310684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	PrecSep-21	
500-128504-2	G46S	Total/NA	Water	PrecSep-21	
500-128504-3	G48S	Total/NA	Water	PrecSep-21	
500-128504-4	G47S	Total/NA	Water	PrecSep-21	
500-128504-5	DUP	Total/NA	Water	PrecSep-21	
500-128504-6	G45S	Total/NA	Water	PrecSep-21	
MB 160-310684/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-310684/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-128504-1 DU	T03S	Total/NA	Water	PrecSep-21	

Prep Batch: 310835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-1	T03S	Total/NA	Water	PrecSep_0	
500-128504-2	G46S	Total/NA	Water	PrecSep_0	
500-128504-3	G48S	Total/NA	Water	PrecSep_0	
500-128504-4	G47S	Total/NA	Water	PrecSep_0	
500-128504-5	DUP	Total/NA	Water	PrecSep_0	
500-128504-6	G45S	Total/NA	Water	PrecSep_0	
MB 160-310835/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-310835/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-128504-1 DU	T03S	Total/NA	Water	PrecSep_0	

Prep Batch: 311316

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total/NA	Water	PrecSep-21	
500-128504-8	G44S	Total/NA	Water	PrecSep-21	
500-128504-9	R08S	Total/NA	Water	PrecSep-21	
500-128504-10	R32S	Total/NA	Water	PrecSep-21	
500-128504-11	G30S	Total/NA	Water	PrecSep-21	
MB 160-311316/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-311316/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-128504-7 DU	G20S	Total/NA	Water	PrecSep-21	

Prep Batch: 311333

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-7	G20S	Total/NA	Water	PrecSep_0	
500-128504-8	G44S	Total/NA	Water	PrecSep_0	
500-128504-10	R32S	Total/NA	Water	PrecSep_0	
500-128504-11	G30S	Total/NA	Water	PrecSep_0	
MB 160-311333/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-311333/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-128504-7 DU	G20S	Total/NA	Water	PrecSep_0	

Prep Batch: 313404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-128504-9	R08S	Total/NA	Water	PrecSep_0	
MB 160-313404/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-313404/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-128504-9 DU	R08S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-310684/1-A
Matrix: Water
Analysis Batch: 314195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310684

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.001258	U	0.0476	0.0476	1.00	0.0977	pCi/L	05/25/17 14:47	06/20/17 08:16	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/25/17 14:47*	*06/20/17 08:16*	*1*

Lab Sample ID: LCS 160-310684/2-A
Matrix: Water
Analysis Batch: 314195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310684

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	8.960		0.932	1.00	0.0612	pCi/L	79	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*107*		*40 - 110*

Lab Sample ID: 500-128504-1 DU
Matrix: Water
Analysis Batch: 314195

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 310684

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.642			0.5771		0.135	1.00	0.0691	pCi/L			0.23	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*98.8*		*40 - 110*

Lab Sample ID: MB 160-311316/1-A
Matrix: Water
Analysis Batch: 314733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311316

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.03493	U	0.0472	0.0473	1.00	0.118	pCi/L	05/31/17 10:11	06/22/17 06:19	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*05/31/17 10:11*	*06/22/17 06:19*	*1*

Lab Sample ID: LCS 160-311316/2-A
Matrix: Water
Analysis Batch: 314733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311316

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	12.63		1.30	1.00	0.105	pCi/L	111	68 - 137		

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-311316/2-A
Matrix: Water
Analysis Batch: 314733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311316

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110

Lab Sample ID: 500-128504-7 DU
Matrix: Water
Analysis Batch: 314733

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 311316

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.21			0.8308		0.191	1.00	0.107	pCi/L			0.88	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	90.0		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-310835/1-A
Matrix: Water
Analysis Batch: 312650

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 310835

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3583	U	0.234	0.237	1.00	0.360	pCi/L	05/26/17 09:34	06/09/17 10:24	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110	05/26/17 09:34	06/09/17 10:24	1
Y Carrier	75.1		40 - 110	05/26/17 09:34	06/09/17 10:24	1

Lab Sample ID: LCS 160-310835/2-A
Matrix: Water
Analysis Batch: 312650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 310835

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.3	13.68		1.45	1.00	0.315	pCi/L	103	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	107		40 - 110
Y Carrier	81.9		40 - 110

Lab Sample ID: 500-128504-1 DU
Matrix: Water
Analysis Batch: 312650

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 310835

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.565			0.2928	U	0.220	1.00	0.343	pCi/L			0.63	1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 500-128504-1 DU
Matrix: Water
Analysis Batch: 312650

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 310835

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	98.8		40 - 110
Y Carrier	85.6		40 - 110

Lab Sample ID: MB 160-311333/1-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 311333

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1092	U	0.222	0.222	1.00	0.379	pCi/L	05/31/17 10:56	06/13/17 14:23	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110	05/31/17 10:56	06/13/17 14:23	1
Y Carrier	85.2		40 - 110	05/31/17 10:56	06/13/17 14:23	1

Lab Sample ID: LCS 160-311333/2-A
Matrix: Water
Analysis Batch: 313171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 311333

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.3	13.93		1.50	1.00	0.357	pCi/L	105	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.8		40 - 110
Y Carrier	87.5		40 - 110

Lab Sample ID: 500-128504-7 DU
Matrix: Water
Analysis Batch: 313171

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 311333

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.942			0.8047		0.323	1.00	0.442	pCi/L			0.22	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	90.0		40 - 110
Y Carrier	80.7		40 - 110

Lab Sample ID: MB 160-313404/1-A
Matrix: Water
Analysis Batch: 314179

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313404

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1561	U	0.175	0.175	1.00	0.287	pCi/L	06/14/17 14:29	06/19/17 13:54	1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-313404/1-A
Matrix: Water
Analysis Batch: 314179

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 313404

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110	06/14/17 14:29	06/19/17 13:54	1
Y Carrier	86.4		40 - 110	06/14/17 14:29	06/19/17 13:54	1

Lab Sample ID: LCS 160-313404/2-A
Matrix: Water
Analysis Batch: 314179

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 313404

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			13.3	14.10		1.48	1.00	0.289	pCi/L	106	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	109		40 - 110
Y Carrier	89.0		40 - 110

Lab Sample ID: 500-128504-9 DU
Matrix: Water
Analysis Batch: 314179

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 313404

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.304	U		0.4383		0.223	1.00	0.322	pCi/L			0.27	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	104		40 - 110
Y Carrier	86.7		40 - 110

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-128504 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 26-72.7

Client: Midwest Generation EME LLC
Client Project #:
Project Name:
Project Location/State:
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Total Metals	Radium 226/228	Cl, F, SO4, TDS							
1		T035	05/22/17	1308	5	W		✓	✓	✓							
2		G465	05/22/17	1505	5	W		✓	✓	✓							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	05/22/17	1712		TA-CHI	5/23/17	0710
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

6/22/2017

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 4.6=4.7

Client	Client Project #
Midwest Generation EME LLC	
Project Name	
Joliet #9 CCR E/W	
Project Location/State	Lab Project #
Joliet, IL	
Sampler	Lab PM
Noe L., Andrew N.	Eric Long

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	Y						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						Comments
3		G485	05/23/17	0950	5	W		—	—	—						
4		G475	05/23/17	1110	5	W		—	—	—						
5		DUP	05/23/17	1110	5	W		—	—	—						DUP of G475
6		G455	05/23/17	1426	5	W		—	—	—						

Preservative Key
1 HCl
2.
3.
4.
5.
6.
7.
8. 500-128504 COC
9.

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/23/17	1550	[signature]	TALM	05/23/17	15:50
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL 4124 500 (1209)

6/22/2017

TestAmerica

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Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.1-3.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Andrew N.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
7		G20S	05/24/17	0925	4	W		—	—	—						
8		G44S	05/24/17	1329	5	W		—	—	—						

Key
°
) 4°
4°
4°
to 4°

500-128504 COC

9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DL	TAL	05/24/17	1530	David Savage	TALH	05/24/17	1530
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

6/22/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-128504

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler:

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L, Andrew N
Lab PM: Eric Lang

Preservative: 3 | 3 | 8

Parameter: Radium 226/228 | Total Metals | Cl, Fl, SO4, TDS

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix
9		R08S	05/25/17	0945	5	W
10		R32S	05/25/17	1119	5	W
11		G30S	05/25/17	1258	5	W

Preservative Key
1. HCL, Cool to 4°
2. H2SO4 Cool to 4°
3. ol to 4°
4. ol to 4°
Cool to 4°

500-128504 COC

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/25/17	1535	[signature] AS 05/25/17	TAMI	05/25/17	1535
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
				[signature]			
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TT
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-128504 Chain of Custody

TestAmerica
LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.		No: 88057.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-128504-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/2/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G48S (500-128504-3)	5/23/17	09:50 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-128504-4)	5/23/17	11:10 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-128504-5)	5/23/17	11:00 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-128504-6)	5/23/17	14:26 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 05/23/17 16:00	Company TALI	Received by:	Date/Time: 5-24-17 0750	Company TALI
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/22/2017

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

500-128504 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	COC No: 500-88053.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois	Page: Page 1 of 1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/19/2017		Job #: 500-128504-2
City: Earth City	TAT Requested (days):		
State, Zip: MO, 63045			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:		
Email:	WO #:		
Project Name: Joliet #9 CCR	Project #: 50011504		
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:		

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
Preservation Code:											
T03S (500-128504-1)	5/22/17	13:08 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G46S (500-128504-2)	5/22/17	15:05 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 05/23/17 @ 1500	Company TA	Received by:	Date/Time: 5-24-17 0750	Company TBSL	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/22/2017

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Chain of Custody Record

500-128504 Chain of Custody

testAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.		C No: 0-88110.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-128504-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/2/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-128504-7)	5/24/17	09:25 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-128504-8)	5/24/17	13:29 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Chris Sears	Date/Time: 05/24/17 15:46	Company	Received by: Jeff Clark	Date/Time: 5.25.17 0750	Company TAST		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company		

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/22/2017

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Chain of Custody Record

500-128504 Chain of Custody

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.		COC No: 500-88205.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-128504-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/2/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
R08S (500-128504-9)	5/25/17	09:45 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-128504-10)	5/25/17	11:19 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G30S (500-128504-11)	5/25/17	12:58 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	05/25/17 16:00	TALL	[signature]	5-26-17 0900	TAST
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

6/22/2017

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-128504-2

Login Number: 128504
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7, 4.7,3.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-128504-2

Login Number: 128504
List Number: 2
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis
List Creation: 05/24/17 04:47 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-128504-2

Login Number: 128504
List Number: 3
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 05/25/17 12:41 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-128504-2

Login Number: 128504
List Number: 4
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis
List Creation: 05/26/17 12:53 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Client Sample ID: T03S — Lab Sample ID: 500-128504-1

Date Collected: 05/22/17 13:08 — **Matrix: Water**
Date Received: 05/22/17 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310684	05/25/17 14:47	LDE	TAL SL
Total/NA	Analysis	903.0		1	314195	06/20/17 08:16	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310835	05/26/17 09:34	LDE	TAL SL
Total/NA	Analysis	904.0		1	312650	06/09/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: G46S — Lab Sample ID: 500-128504-2

Date Collected: 05/22/17 15:05 — **Matrix: Water**
Date Received: 05/22/17 17:12

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310684	05/25/17 14:47	LDE	TAL SL
Total/NA	Analysis	903.0		1	314195	06/20/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310835	05/26/17 09:34	LDE	TAL SL
Total/NA	Analysis	904.0		1	312650	06/09/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: G48S — Lab Sample ID: 500-128504-3

Date Collected: 05/23/17 09:50 — **Matrix: Water**
Date Received: 05/23/17 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310684	05/25/17 14:47	LDE	TAL SL
Total/NA	Analysis	903.0		1	314195	06/20/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310835	05/26/17 09:34	LDE	TAL SL
Total/NA	Analysis	904.0		1	312650	06/09/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: G47S — Lab Sample ID: 500-128504-4

Date Collected: 05/23/17 11:10 — **Matrix: Water**
Date Received: 05/23/17 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310684	05/25/17 14:47	LDE	TAL SL
Total/NA	Analysis	903.0		1	314195	06/20/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310835	05/26/17 09:34	LDE	TAL SL
Total/NA	Analysis	904.0		1	312650	06/09/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Client Sample ID: DUP
Date Collected: 05/23/17 11:00
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310684	05/25/17 14:47	LDE	TAL SL
Total/NA	Analysis	903.0		1	314195	06/20/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310835	05/26/17 09:34	LDE	TAL SL
Total/NA	Analysis	904.0		1	312650	06/09/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: G45S
Date Collected: 05/23/17 14:26
Date Received: 05/23/17 15:50

Lab Sample ID: 500-128504-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			310684	05/25/17 14:47	LDE	TAL SL
Total/NA	Analysis	903.0		1	314195	06/20/17 08:17	ALD	TAL SL
Total/NA	Prep	PrecSep_0			310835	05/26/17 09:34	LDE	TAL SL
Total/NA	Analysis	904.0		1	312650	06/09/17 10:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: G20S
Date Collected: 05/24/17 09:25
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			311316	05/31/17 10:11	LDE	TAL SL
Total/NA	Analysis	903.0		1	314733	06/22/17 08:25	ALD	TAL SL
Total/NA	Prep	PrecSep_0			311333	05/31/17 10:56	LDE	TAL SL
Total/NA	Analysis	904.0		1	313171	06/13/17 14:24	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: G44S
Date Collected: 05/24/17 13:29
Date Received: 05/24/17 15:30

Lab Sample ID: 500-128504-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			311316	05/31/17 10:11	LDE	TAL SL
Total/NA	Analysis	903.0		1	314733	06/22/17 08:25	ALD	TAL SL
Total/NA	Prep	PrecSep_0			311333	05/31/17 10:56	LDE	TAL SL
Total/NA	Analysis	904.0		1	313171	06/13/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Client Sample ID: R08S

Lab Sample ID: 500-128504-9

Date Collected: 05/25/17 09:45
Matrix: Water
Date Received: 05/25/17 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			311316	05/31/17 10:11	LDE	TAL SL
Total/NA	Analysis	903.0		1	314733	06/22/17 08:25	ALD	TAL SL
Total/NA	Prep	PrecSep_0			313404	06/14/17 14:29	LDE	TAL SL
Total/NA	Analysis	904.0		1	314179	06/19/17 13:53	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: R32S

Lab Sample ID: 500-128504-10

Date Collected: 05/25/17 11:19
Matrix: Water
Date Received: 05/25/17 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			311316	05/31/17 10:11	LDE	TAL SL
Total/NA	Analysis	903.0		1	314733	06/22/17 08:25	ALD	TAL SL
Total/NA	Prep	PrecSep_0			311333	05/31/17 10:56	LDE	TAL SL
Total/NA	Analysis	904.0		1	313171	06/13/17 14:25	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Client Sample ID: G30S

Lab Sample ID: 500-128504-11

Date Collected: 05/25/17 12:58
Matrix: Water
Date Received: 05/25/17 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			311316	05/31/17 10:11	LDE	TAL SL
Total/NA	Analysis	903.0		1	314733	06/22/17 08:25	ALD	TAL SL
Total/NA	Prep	PrecSep_0			311333	05/31/17 10:56	LDE	TAL SL
Total/NA	Analysis	904.0		1	313170	06/13/17 14:26	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	314773	06/22/17 12:56	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-128504-1	T03S	103
500-128504-1 DU	T03S	98.8
500-128504-2	G46S	99.1
500-128504-3	G48S	103
500-128504-4	G47S	94.7
500-128504-5	DUP	94.1
500-128504-6	G45S	90.6
500-128504-7	G20S	90.6
500-128504-7 DU	G20S	90.0
500-128504-8	G44S	86.7
500-128504-9	R08S	79.9
500-128504-10	R32S	82.6
500-128504-11	G30S	77.9
LCS 160-310684/2-A	Lab Control Sample	107
LCS 160-311316/2-A	Lab Control Sample	96.8
MB 160-310684/1-A	Method Blank	100
MB 160-311316/1-A	Method Blank	94.1

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-128504-1	T03S	103	86.7
500-128504-1 DU	T03S	98.8	85.6
500-128504-2	G46S	99.1	76.3
500-128504-3	G48S	103	79.6
500-128504-4	G47S	94.7	82.2
500-128504-5	DUP	94.1	78.9
500-128504-6	G45S	90.6	85.6
500-128504-7	G20S	90.6	84.9
500-128504-7 DU	G20S	90.0	80.7
500-128504-8	G44S	86.7	89.0
500-128504-9	R08S	96.5	84.1
500-128504-9 DU	R08S	104	86.7
500-128504-10	R32S	82.6	86.4
500-128504-11	G30S	77.9	86.0
LCS 160-310835/2-A	Lab Control Sample	107	81.9
LCS 160-311333/2-A	Lab Control Sample	96.8	87.5
LCS 160-313404/2-A	Lab Control Sample	109	89.0
MB 160-310835/1-A	Method Blank	100	75.1
MB 160-311333/1-A	Method Blank	94.1	85.2
MB 160-313404/1-A	Method Blank	105	86.4

Tracer/Carrier Legend

Ba = Ba Carrier

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

TestAmerica Job ID: 500-128504-2

Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-134554-1
Client Project/Site: Joliet #9 CCR - 3Q17

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
10/12/2017 3:50:27 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-134554-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-134554-1

Comments
No additional comments.

Receipt
The samples were received on 9/25/2017 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.5º C, 1.8º C, 3.0º C and 3.4º C.

Metals
Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-403094. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-404087. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-134554-1	G20S	Water	09/25/17 08:00	09/25/17 16:50
500-134554-2	R08S	Water	09/25/17 12:30	09/25/17 16:50
500-134554-3	T03S	Water	09/26/17 08:18	09/26/17 14:55
500-134554-4	G45S	Water	09/26/17 10:06	09/26/17 14:55
500-134554-5	G30S	Water	09/26/17 11:43	09/26/17 14:55
500-134554-6	DUP	Water	09/26/17 11:43	09/26/17 14:55
500-134554-7	G46S	Water	09/27/17 08:25	09/27/17 15:05
500-134554-8	G48S	Water	09/27/17 11:20	09/27/17 15:05
500-134554-9	G47S	Water	09/27/17 13:05	09/27/17 15:05
500-134554-10	G44S	Water	09/28/17 08:40	09/28/17 15:10
500-134554-11	R32S	Water	09/28/17 10:45	09/28/17 15:10

Client Sample ID: G20S

Date Collected: 09/25/17 08:00
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.036**		0.010		mg/L		09/28/17 15:29	09/29/17 13:43	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/26/17 14:18	10/05/17 13:23	1
Arsenic	<0.0010		0.0010		mg/L		09/26/17 14:18	10/05/17 13:23	1
Barium	**0.051**		0.0025		mg/L		09/26/17 14:18	10/05/17 13:23	1
Beryllium	<0.0010		0.0010		mg/L		09/26/17 14:18	10/05/17 13:23	1
Boron	**1.3**		0.25		mg/L		09/26/17 14:18	10/06/17 13:38	5
Cadmium	<0.00050		0.00050		mg/L		09/26/17 14:18	10/05/17 13:23	1
Calcium	**60**		0.20		mg/L		09/26/17 14:18	10/05/17 13:23	1
Chromium	<0.0050		0.0050		mg/L		09/26/17 14:18	10/05/17 13:23	1
Cobalt	**0.0015**		0.0010		mg/L		09/26/17 14:18	10/05/17 13:23	1
Lead	<0.00050		0.00050		mg/L		09/26/17 14:18	10/05/17 13:23	1
Molybdenum	**0.022**		0.0050		mg/L		09/26/17 14:18	10/05/17 13:23	1
Selenium	<0.0025		0.0025		mg/L		09/26/17 14:18	10/05/17 13:23	1
Thallium	<0.0020		0.0020		mg/L		09/26/17 14:18	10/05/17 13:23	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 08:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**440**		10		mg/L			09/27/17 04:52	1
Chloride	**12**		2.0		mg/L			10/01/17 21:34	1
Fluoride	**0.78**		0.10		mg/L			09/28/17 12:36	1
Sulfate	**76**		25		mg/L			09/27/17 08:37	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**49.02**				ft			09/25/17 08:00	1
Depth to water from land surface	**46.24**				ft			09/25/17 08:00	1
Elevation of well (ft from MP)	**580.33**				ft			09/25/17 08:00	1
Field pH	**7.30**				SU			09/25/17 08:00	1
Field Temperature	**64.4**				Degrees F			09/25/17 08:00	1
Ground Water Elevation	**531.31**				ft			09/25/17 08:00	1
Specific Conductance	**596**				umhos/cm			09/25/17 08:00	1
Well bottom elevation	**442.28**				ft			09/25/17 08:00	1

Client Sample ID: R08S

Date Collected: 09/25/17 12:30
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.13**		0.010		mg/L		09/28/17 15:29	09/29/17 13:47	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/26/17 14:18	10/05/17 13:27	1
Arsenic	**0.0020**		0.0010		mg/L		09/26/17 14:18	10/05/17 13:27	1
Barium	**0.048**		0.0025		mg/L		09/26/17 14:18	10/05/17 13:27	1
Beryllium	<0.0010		0.0010		mg/L		09/26/17 14:18	10/05/17 13:27	1
Boron	**7.3**		1.0		mg/L		09/26/17 14:18	10/06/17 13:42	20
Cadmium	<0.00050		0.00050		mg/L		09/26/17 14:18	10/05/17 13:27	1
Calcium	**140**		0.20		mg/L		09/26/17 14:18	10/05/17 13:27	1
Chromium	<0.0050		0.0050		mg/L		09/26/17 14:18	10/05/17 13:27	1
Cobalt	<0.0010		0.0010		mg/L		09/26/17 14:18	10/05/17 13:27	1
Lead	**0.00067**		0.00050		mg/L		09/26/17 14:18	10/05/17 13:27	1
Molybdenum	**0.38**		0.0050		mg/L		09/26/17 14:18	10/05/17 13:27	1
Selenium	**0.0079**		0.0025		mg/L		09/26/17 14:18	10/05/17 13:27	1
Thallium	<0.0020		0.0020		mg/L		09/26/17 14:18	10/05/17 13:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 08:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**840**		10		mg/L			09/27/17 04:58	1
Chloride	**81**		10		mg/L			10/01/17 22:10	5
Fluoride	**0.15**		0.10		mg/L			09/28/17 12:38	1
Sulfate	**390**		100		mg/L			09/27/17 08:38	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**65.72**				ft			09/25/17 12:30	1
Depth to water from land surface	**63.17**				ft			09/25/17 12:30	1
Elevation of well (ft from MP)	**578.65**				ft			09/25/17 12:30	1
Field pH	**7.57**				SU			09/25/17 12:30	1
Field Temperature	**61.0**				Degrees F			09/25/17 12:30	1
Ground Water Elevation	**512.93**				ft			09/25/17 12:30	1
Specific Conductance	**980**				umhos/cm			09/25/17 12:30	1
Well bottom elevation	**453.08**				ft			09/25/17 12:30	1

Client Sample ID: T03S

Date Collected: 09/26/17 08:18
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.018**		0.010		mg/L		09/27/17 07:01	09/28/17 01:20	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/27/17 07:01	10/04/17 15:35	1
Arsenic	**0.0011**		0.0010		mg/L		09/27/17 07:01	09/27/17 18:56	1
Barium	**0.086**		0.0025		mg/L		09/27/17 07:01	09/28/17 18:52	1
Beryllium	<0.0010		0.0010		mg/L		09/27/17 07:01	10/04/17 15:35	1
Boron	**1.3**		0.25		mg/L		09/27/17 07:01	10/04/17 12:53	5
Cadmium	<0.00050		0.00050		mg/L		09/27/17 07:01	09/28/17 18:52	1
Calcium	**110**		0.20		mg/L		09/27/17 07:01	10/04/17 15:35	1
Chromium	<0.0050		0.0050		mg/L		09/27/17 07:01	09/27/17 18:56	1
Cobalt	**0.0013**		0.0010		mg/L		09/27/17 07:01	09/27/17 18:56	1
Lead	<0.00050		0.00050		mg/L		09/27/17 07:01	10/04/17 15:35	1
Molybdenum	**0.14**		0.0050		mg/L		09/27/17 07:01	09/27/17 18:56	1
Selenium	<0.0025		0.0025		mg/L		09/27/17 07:01	09/27/17 18:56	1
Thallium	<0.0020		0.0020		mg/L		09/27/17 07:01	09/27/17 18:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 08:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**790**		10		mg/L			09/27/17 05:00	1
Chloride	**80**		10		mg/L			10/01/17 22:11	5
Fluoride	**0.21**		0.10		mg/L			09/28/17 12:49	1
Sulfate	**240**		50		mg/L			09/27/17 08:39	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**136.40**				ft			09/26/17 08:18	1
Depth to water from land surface	**133.32**				ft			09/26/17 08:18	1
Elevation of well (ft from MP)	**629.65**				ft			09/26/17 08:18	1
Field pH	**7.19**				SU			09/26/17 08:18	1
Field Temperature	**59.7**				Degrees F			09/26/17 08:18	1
Ground Water Elevation	**493.25**				ft			09/26/17 08:18	1
Specific Conductance	**1019**				umhos/cm			09/26/17 08:18	1
Well bottom elevation	**456.70**				ft			09/26/17 08:18	1

Client Sample ID: G45S

Date Collected: 09/26/17 10:06
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.029**		0.010		mg/L		09/27/17 07:01	09/28/17 01:25	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/27/17 07:01	10/04/17 12:57	1
Arsenic	**0.0096**		0.0010		mg/L		09/27/17 07:01	09/27/17 18:58	1
Barium	**0.040**		0.0025		mg/L		09/27/17 07:01	09/28/17 18:54	1
Beryllium	<0.0010		0.0010		mg/L		09/27/17 07:01	10/04/17 12:57	1
Boron	**0.43**		0.050		mg/L		09/27/17 07:01	10/04/17 12:57	1
Cadmium	<0.00050		0.00050		mg/L		09/27/17 07:01	09/28/17 18:54	1
Calcium	**110**		0.20		mg/L		09/27/17 07:01	10/04/17 12:57	1
Chromium	<0.0050		0.0050		mg/L		09/27/17 07:01	09/27/17 18:58	1
Cobalt	<0.0010		0.0010		mg/L		09/27/17 07:01	09/27/17 18:58	1
Lead	<0.00050		0.00050		mg/L		09/27/17 07:01	10/04/17 12:57	1
Molybdenum	**0.0079**		0.0050		mg/L		09/27/17 07:01	09/27/17 18:58	1
Selenium	<0.0025		0.0025		mg/L		09/27/17 07:01	09/27/17 18:58	1
Thallium	<0.0020		0.0020		mg/L		09/27/17 07:01	09/27/17 18:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**790**		10		mg/L			09/27/17 05:03	1
Chloride	**130**		10		mg/L			10/01/17 22:11	5
Fluoride	**0.30**		0.10		mg/L			09/28/17 12:52	1
Sulfate	**160**		50		mg/L			09/27/17 08:40	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**63.10**				ft			09/26/17 10:06	1
Depth to water from land surface	**60.13**				ft			09/26/17 10:06	1
Elevation of well (ft from MP)	**603.31**				ft			09/26/17 10:06	1
Field pH	**7.21**				SU			09/26/17 10:06	1
Field Temperature	**59.2**				Degrees F			09/26/17 10:06	1
Ground Water Elevation	**540.21**				ft			09/26/17 10:06	1
Specific Conductance	**992**				umhos/cm			09/26/17 10:06	1
Well bottom elevation	**471.05**				ft			09/26/17 10:06	1

Client Sample ID: G30S

Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.021**		0.010		mg/L		09/27/17 07:01	09/28/17 01:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/27/17 07:01	10/04/17 15:39	1
Arsenic	**0.011**		0.0010		mg/L		09/27/17 07:01	09/27/17 19:00	1
Barium	**0.041**		0.0025		mg/L		09/27/17 07:01	09/28/17 18:56	1
Beryllium	<0.0010		0.0010		mg/L		09/27/17 07:01	10/04/17 15:39	1
Boron	**6.7**		1.0		mg/L		09/27/17 07:01	10/04/17 13:00	20
Cadmium	<0.00050		0.00050		mg/L		09/27/17 07:01	09/28/17 18:56	1
Calcium	**62**		0.20		mg/L		09/27/17 07:01	10/04/17 15:39	1
Chromium	<0.0050		0.0050		mg/L		09/27/17 07:01	09/27/17 19:00	1
Cobalt	<0.0010		0.0010		mg/L		09/27/17 07:01	09/27/17 19:00	1
Lead	<0.00050		0.00050		mg/L		09/27/17 07:01	10/04/17 15:39	1
Molybdenum	**0.20**		0.0050		mg/L		09/27/17 07:01	09/27/17 19:00	1
Selenium	<0.0025		0.0025		mg/L		09/27/17 07:01	09/27/17 19:00	1
Thallium	<0.0020		0.0020		mg/L		09/27/17 07:01	09/27/17 19:00	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			09/27/17 05:05	1
Chloride	**190**		10		mg/L			10/01/17 22:12	5
Fluoride	**1.3**		0.10		mg/L			09/28/17 12:54	1
Sulfate	**460**		100		mg/L			09/27/17 08:41	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**1.84**				ft			09/26/17 11:43	1
Depth to water from land surface	**-0.47**				ft			09/26/17 11:43	1
Elevation of well (ft from MP)	**524.40**				ft			09/26/17 11:43	1
Field pH	**8.07**				SU			09/26/17 11:43	1
Field Temperature	**61.3**				Degrees F			09/26/17 11:43	1
Ground Water Elevation	**522.56**				ft			09/26/17 11:43	1
Specific Conductance	**1480**				umhos/cm			09/26/17 11:43	1
Well bottom elevation	**462.58**				ft			09/26/17 11:43	1

Client Sample ID: DUP

Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.019**		0.010		mg/L		09/27/17 07:01	09/28/17 01:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/27/17 07:01	10/04/17 15:42	1
Arsenic	**0.011**		0.0010		mg/L		09/27/17 07:01	09/27/17 19:02	1
Barium	**0.038**		0.0025		mg/L		09/27/17 07:01	09/28/17 18:58	1
Beryllium	<0.0010		0.0010		mg/L		09/27/17 07:01	10/04/17 15:42	1
Boron	**6.3**		1.0		mg/L		09/27/17 07:01	10/04/17 13:04	20
Cadmium	<0.00050		0.00050		mg/L		09/27/17 07:01	09/28/17 18:58	1
Calcium	**56**		0.20		mg/L		09/27/17 07:01	10/04/17 15:42	1
Chromium	<0.0050		0.0050		mg/L		09/27/17 07:01	09/27/17 19:02	1
Cobalt	<0.0010		0.0010		mg/L		09/27/17 07:01	09/27/17 19:02	1
Lead	<0.00050		0.00050		mg/L		09/27/17 07:01	10/04/17 15:42	1
Molybdenum	**0.20**	**V**	0.0050		mg/L		09/27/17 07:01	09/27/17 19:02	1
Selenium	<0.0025	F1	0.0025		mg/L		09/27/17 07:01	09/27/17 19:02	1
Thallium	<0.0020		0.0020		mg/L		09/27/17 07:01	09/27/17 19:02	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			09/27/17 05:08	1
Chloride	**180**		10		mg/L			10/01/17 22:12	5
Fluoride	**1.2**		0.10		mg/L			09/28/17 12:57	1
Sulfate	**440**		100		mg/L			09/27/17 08:42	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**1.84**				ft			09/26/17 11:43	1
Depth to water from land surface	**-0.47**				ft			09/26/17 11:43	1
Elevation of well (ft from MP)	**524.40**				ft			09/26/17 11:43	1
Field pH	**8.07**				SU			09/26/17 11:43	1
Field Temperature	**61.3**				Degrees F			09/26/17 11:43	1
Ground Water Elevation	**522.56**				ft			09/26/17 11:43	1
Specific Conductance	**1480**				umhos/cm			09/26/17 11:43	1
Well bottom elevation	**462.58**				ft			09/26/17 11:43	1

Client Sample ID: G46S

Date Collected: 09/27/17 08:25
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-7

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.091**		0.010		mg/L		09/28/17 07:19	09/28/17 22:34	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/28/17 07:19	10/04/17 16:01	1
Arsenic	**0.0043**		0.0010		mg/L		09/28/17 07:19	09/28/17 19:19	1
Barium	**0.031**		0.0025		mg/L		09/28/17 07:19	09/28/17 19:19	1
Beryllium	<0.0010		0.0010		mg/L		09/28/17 07:19	10/04/17 16:01	1
Boron	**4.9**		0.50		mg/L		09/28/17 07:19	10/05/17 15:09	10
Cadmium	<0.00050		0.00050		mg/L		09/28/17 07:19	09/28/17 19:19	1
Calcium	**88**		0.20		mg/L		09/28/17 07:19	10/04/17 16:01	1
Chromium	<0.0050		0.0050		mg/L		09/28/17 07:19	09/28/17 19:19	1
Cobalt	<0.0010		0.0010		mg/L		09/28/17 07:19	09/28/17 19:19	1
Lead	<0.00050		0.00050		mg/L		09/28/17 07:19	10/04/17 16:01	1
Molybdenum	**0.63**		0.0050		mg/L		09/28/17 07:19	09/28/17 19:19	1
Selenium	<0.0025		0.0025		mg/L		09/28/17 07:19	09/28/17 19:19	1
Thallium	<0.0020		0.0020		mg/L		09/28/17 07:19	10/04/17 16:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**890**		10		mg/L			09/28/17 07:57	1
Chloride	**160**		10		mg/L			10/01/17 22:13	5
Fluoride	**0.40**		0.10		mg/L			09/28/17 13:17	1
Sulfate	**270**		50		mg/L			10/11/17 08:11	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**96.61**				ft			09/27/17 08:25	1
Depth to water from land surface	**93.91**				ft			09/27/17 08:25	1
Elevation of well (ft from MP)	**601.32**				ft			09/27/17 08:25	1
Field pH	**7.28**				SU			09/27/17 08:25	1
Field Temperature	**58.6**				Degrees F			09/27/17 08:25	1
Ground Water Elevation	**504.71**				ft			09/27/17 08:25	1
Specific Conductance	**1164**				umhos/cm			09/27/17 08:25	1
Well bottom elevation	**453.62**				ft			09/27/17 08:25	1

Client Sample ID: G48S

Date Collected: 09/27/17 11:20
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-8

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.019**		0.010		mg/L		09/28/17 07:19	09/28/17 22:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/28/17 07:19	10/04/17 16:05	1
Arsenic	**0.024**		0.0010		mg/L		09/28/17 07:19	09/28/17 19:21	1
Barium	**0.019**		0.0025		mg/L		09/28/17 07:19	09/28/17 19:21	1
Beryllium	<0.0010		0.0010		mg/L		09/28/17 07:19	10/04/17 16:05	1
Boron	**7.6**		1.0		mg/L		09/28/17 07:19	10/05/17 15:13	20
Cadmium	<0.00050		0.00050		mg/L		09/28/17 07:19	09/28/17 19:21	1
Calcium	**18**		0.20		mg/L		09/28/17 07:19	10/04/17 16:05	1
Chromium	<0.0050		0.0050		mg/L		09/28/17 07:19	09/28/17 19:21	1
Cobalt	<0.0010		0.0010		mg/L		09/28/17 07:19	09/28/17 19:21	1
Lead	<0.00050		0.00050		mg/L		09/28/17 07:19	10/04/17 16:05	1
Molybdenum	**0.72**		0.0050		mg/L		09/28/17 07:19	09/28/17 19:21	1
Selenium	<0.0025		0.0025		mg/L		09/28/17 07:19	09/28/17 19:21	1
Thallium	<0.0020		0.0020		mg/L		09/28/17 07:19	10/04/17 16:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			09/28/17 08:05	1
Chloride	**100**		10		mg/L			10/01/17 22:13	5
Fluoride	**1.1**		0.10		mg/L			09/28/17 13:29	1
Sulfate	**480**		100		mg/L			10/11/17 08:12	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**102.88**				ft			09/27/17 11:20	1
Depth to water from land surface	**100.43**				ft			09/27/17 11:20	1
Elevation of well (ft from MP)	**620.77**				ft			09/27/17 11:20	1
Field pH	**8.94**				SU			09/27/17 11:20	1
Field Temperature	**59.0**				Degrees F			09/27/17 11:20	1
Ground Water Elevation	**517.89**				ft			09/27/17 11:20	1
Specific Conductance	**1452**				umhos/cm			09/27/17 11:20	1
Well bottom elevation	**468.32**				ft			09/27/17 11:20	1

Client Sample ID: G47S
Date Collected: 09/27/17 13:05
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-9
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.014**		0.010		mg/L		09/28/17 07:19	09/28/17 23:06	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/28/17 07:19	10/04/17 16:32	1
Arsenic	**0.21**		0.0010		mg/L		09/28/17 07:19	09/28/17 19:35	1
Barium	**0.0085**		0.0025		mg/L		09/28/17 07:19	09/28/17 19:35	1
Beryllium	<0.0010		0.0010		mg/L		09/28/17 07:19	10/04/17 16:32	1
Boron	**18**		5.0		mg/L		09/28/17 07:19	10/05/17 15:46	100
Cadmium	<0.00050		0.00050		mg/L		09/28/17 07:19	09/28/17 19:35	1
Calcium	**1.1**		0.20		mg/L		09/28/17 07:19	10/04/17 16:32	1
Chromium	<0.0050		0.0050		mg/L		09/28/17 07:19	09/28/17 19:35	1
Cobalt	<0.0010		0.0010		mg/L		09/28/17 07:19	09/28/17 19:35	1
Lead	<0.00050		0.00050		mg/L		09/28/17 07:19	10/04/17 16:32	1
Molybdenum	**1.3**		0.0050		mg/L		09/28/17 07:19	09/28/17 19:35	1
Selenium	**0.0027**		0.0025		mg/L		09/28/17 07:19	09/28/17 19:35	1
Thallium	<0.0020		0.0020		mg/L		09/28/17 07:19	10/04/17 16:32	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1900**		10		mg/L			09/28/17 08:10	1
Chloride	**150**		10		mg/L			10/01/17 22:14	5
Fluoride	**2.0**		0.10		mg/L			09/28/17 13:08	1
Sulfate	**750**		250		mg/L			10/11/17 08:15	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**93.50**				ft			09/27/17 13:05	1
Depth to water from land surface	**91.00**				ft			09/27/17 13:05	1
Elevation of well (ft from MP)	**612.32**				ft			09/27/17 13:05	1
Field pH	**10.15**				SU			09/27/17 13:05	1
Field Temperature	**65.8**				Degrees F			09/27/17 13:05	1
Ground Water Elevation	**518.82**				ft			09/27/17 13:05	1
Specific Conductance	**2470**				umhos/cm			09/27/17 13:05	1
Well bottom elevation	**459.84**				ft			09/27/17 13:05	1

Client Sample ID: G44S

Date Collected: 09/28/17 08:40
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.014**		0.010		mg/L		09/29/17 07:17	09/29/17 17:25	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/29/17 07:17	10/04/17 15:15	1
Arsenic	<0.0010		0.0010		mg/L		09/29/17 07:17	09/29/17 15:26	1
Barium	**0.048**		0.0025		mg/L		09/29/17 07:17	09/29/17 15:26	1
Beryllium	<0.0010		0.0010		mg/L		09/29/17 07:17	10/04/17 15:15	1
Boron	**0.99**		0.25		mg/L		09/29/17 07:17	10/05/17 16:00	5
Cadmium	<0.00050		0.00050		mg/L		09/29/17 07:17	10/04/17 15:15	1
Calcium	**130**		0.20		mg/L		09/29/17 07:17	10/04/17 15:15	1
Chromium	<0.0050		0.0050		mg/L		09/29/17 07:17	09/29/17 15:26	1
Cobalt	<0.0010		0.0010		mg/L		09/29/17 07:17	09/29/17 15:26	1
Lead	<0.00050		0.00050		mg/L		09/29/17 07:17	10/04/17 15:15	1
Molybdenum	**0.081**		0.0050		mg/L		09/29/17 07:17	09/29/17 15:26	1
Selenium	<0.0025		0.0025		mg/L		09/29/17 07:17	09/29/17 15:26	1
Thallium	<0.0020		0.0020		mg/L		09/29/17 07:17	10/04/17 15:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**730**		10		mg/L			09/29/17 06:57	1
Chloride	**30**		2.0		mg/L			10/01/17 21:45	1
Fluoride	**0.19**		0.10		mg/L			09/29/17 10:31	1
Sulfate	**100**		50		mg/L			10/11/17 08:16	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**80.15**				ft			09/28/17 08:40	1
Depth to water from land surface	**77.97**				ft			09/28/17 08:40	1
Elevation of well (ft from MP)	**586.69**				ft			09/28/17 08:40	1
Field pH	**7.13**				SU			09/28/17 08:40	1
Field Temperature	**56.7**				Degrees F			09/28/17 08:40	1
Ground Water Elevation	**506.54**				ft			09/28/17 08:40	1
Specific Conductance	**7.91**				umhos/cm			09/28/17 08:40	1
Well bottom elevation	**455.11**				ft			09/28/17 08:40	1

Client Sample ID: R32S

Date Collected: 09/28/17 10:45
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-11

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.086**		0.010		mg/L		09/29/17 07:17	09/29/17 17:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/29/17 07:17	10/04/17 16:36	1
Arsenic	**0.0030**		0.0010		mg/L		09/29/17 07:17	09/29/17 15:28	1
Barium	**0.044**		0.0025		mg/L		09/29/17 07:17	09/29/17 15:28	1
Beryllium	<0.0010		0.0010		mg/L		09/29/17 07:17	10/04/17 16:36	1
Boron	**48**		5.0		mg/L		09/29/17 07:17	10/05/17 16:04	100
Cadmium	<0.00050		0.00050		mg/L		09/29/17 07:17	10/04/17 16:36	1
Calcium	**140**		0.20		mg/L		09/29/17 07:17	10/04/17 16:36	1
Chromium	<0.0050		0.0050		mg/L		09/29/17 07:17	09/29/17 15:28	1
Cobalt	<0.0010		0.0010		mg/L		09/29/17 07:17	09/29/17 15:28	1
Lead	<0.00050		0.00050		mg/L		09/29/17 07:17	10/04/17 16:36	1
Molybdenum	**0.57**		0.0050		mg/L		09/29/17 07:17	09/29/17 15:28	1
Selenium	<0.0025		0.0025		mg/L		09/29/17 07:17	09/29/17 15:28	1
Thallium	<0.0020		0.0020		mg/L		09/29/17 07:17	10/04/17 16:36	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 09:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**870**		10		mg/L			09/29/17 06:59	1
Chloride	**78**		10		mg/L			10/01/17 22:14	5
Fluoride	**0.36**		0.10		mg/L			09/29/17 10:39	1
Sulfate	**290**		100		mg/L			10/11/17 08:17	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**17.91**				ft			09/28/17 10:45	1
Depth to water from land surface	**15.88**				ft			09/28/17 10:45	1
Elevation of well (ft from MP)	**536.81**				ft			09/28/17 10:45	1
Field pH	**7.29**				SU			09/28/17 10:45	1
Field Temperature	**54.3**				Degrees F			09/28/17 10:45	1
Ground Water Elevation	**518.90**				ft			09/28/17 10:45	1
Specific Conductance	**708**				umhos/cm			09/28/17 10:45	1
Well bottom elevation	**457.84**				ft			09/28/17 10:45	1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
V	Serial Dilution exceeds the control limits
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 402791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total Recoverable	Water	3005A	
500-134554-2	R08S	Total Recoverable	Water	3005A	
MB 500-402791/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-402791/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-134554-2 MS	R08S	Total Recoverable	Water	3005A	
500-134554-2 MSD	R08S	Total Recoverable	Water	3005A	
500-134554-2 DU	R08S	Total Recoverable	Water	3005A	

Prep Batch: 402863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-3	T03S	Total Recoverable	Water	3005A	
500-134554-4	G45S	Total Recoverable	Water	3005A	
500-134554-5	G30S	Total Recoverable	Water	3005A	
500-134554-6	DUP	Total Recoverable	Water	3005A	
MB 500-402863/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-402863/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-134554-6 MS	DUP	Total Recoverable	Water	3005A	
500-134554-6 MSD	DUP	Total Recoverable	Water	3005A	
500-134554-6 DU	DUP	Total Recoverable	Water	3005A	

Prep Batch: 403026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-7	G46S	Total Recoverable	Water	3005A	
500-134554-8	G48S	Total Recoverable	Water	3005A	
500-134554-9	G47S	Total Recoverable	Water	3005A	
MB 500-403026/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-403026/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-134554-8 MS	G48S	Total Recoverable	Water	3005A	
500-134554-8 MSD	G48S	Total Recoverable	Water	3005A	
500-134554-8 DU	G48S	Total Recoverable	Water	3005A	

Analysis Batch: 403075

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-3	T03S	Total Recoverable	Water	6010C	402863
500-134554-4	G45S	Total Recoverable	Water	6010C	402863
500-134554-5	G30S	Total Recoverable	Water	6010C	402863
500-134554-6	DUP	Total Recoverable	Water	6010C	402863
MB 500-402863/1-A	Method Blank	Total Recoverable	Water	6010C	402863
LCS 500-402863/2-A	Lab Control Sample	Total Recoverable	Water	6010C	402863
500-134554-6 MS	DUP	Total Recoverable	Water	6010C	402863
500-134554-6 MSD	DUP	Total Recoverable	Water	6010C	402863
500-134554-6 DU	DUP	Total Recoverable	Water	6010C	402863

Analysis Batch: 403094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-3	T03S	Total Recoverable	Water	6020A	402863
500-134554-4	G45S	Total Recoverable	Water	6020A	402863
500-134554-5	G30S	Total Recoverable	Water	6020A	402863
500-134554-6	DUP	Total Recoverable	Water	6020A	402863
MB 500-402863/1-A	Method Blank	Total Recoverable	Water	6020A	402863
LCS 500-402863/2-A	Lab Control Sample	Total Recoverable	Water	6020A	402863

Metals (Continued)

Analysis Batch: 403094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-6 MS	DUP	Total Recoverable	Water	6020A	402863
500-134554-6 MSD	DUP	Total Recoverable	Water	6020A	402863
500-134554-6 DU	DUP	Total Recoverable	Water	6020A	402863

Prep Batch: 403181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total Recoverable	Water	3005A	
500-134554-2	R08S	Total Recoverable	Water	3005A	
MB 500-403181/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-403181/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 403232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-10	G44S	Total Recoverable	Water	3005A	
500-134554-11	R32S	Total Recoverable	Water	3005A	
MB 500-403232/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-403232/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 403237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-7	G46S	Total Recoverable	Water	6010C	403026
500-134554-8	G48S	Total Recoverable	Water	6010C	403026
500-134554-9	G47S	Total Recoverable	Water	6010C	403026
MB 500-403026/1-A	Method Blank	Total Recoverable	Water	6010C	403026
LCS 500-403026/2-A	Lab Control Sample	Total Recoverable	Water	6010C	403026
500-134554-8 MS	G48S	Total Recoverable	Water	6010C	403026
500-134554-8 MSD	G48S	Total Recoverable	Water	6010C	403026
500-134554-8 DU	G48S	Total Recoverable	Water	6010C	403026

Analysis Batch: 403281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-3	T03S	Total Recoverable	Water	6020A	402863
500-134554-4	G45S	Total Recoverable	Water	6020A	402863
500-134554-5	G30S	Total Recoverable	Water	6020A	402863
500-134554-6	DUP	Total Recoverable	Water	6020A	402863
500-134554-7	G46S	Total Recoverable	Water	6020A	403026
500-134554-8	G48S	Total Recoverable	Water	6020A	403026
500-134554-9	G47S	Total Recoverable	Water	6020A	403026
MB 500-402863/1-A	Method Blank	Total Recoverable	Water	6020A	402863
MB 500-403026/1-A	Method Blank	Total Recoverable	Water	6020A	403026
LCS 500-402863/2-A	Lab Control Sample	Total Recoverable	Water	6020A	402863
LCS 500-403026/2-A	Lab Control Sample	Total Recoverable	Water	6020A	403026
500-134554-6 MS	DUP	Total Recoverable	Water	6020A	402863
500-134554-6 MSD	DUP	Total Recoverable	Water	6020A	402863
500-134554-8 MS	G48S	Total Recoverable	Water	6020A	403026
500-134554-8 MSD	G48S	Total Recoverable	Water	6020A	403026
500-134554-6 DU	DUP	Total Recoverable	Water	6020A	402863
500-134554-8 DU	G48S	Total Recoverable	Water	6020A	403026

Metals (Continued)

Analysis Batch: 403335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total Recoverable	Water	6010C	403181
500-134554-2	R08S	Total Recoverable	Water	6010C	403181
MB 500-403181/1-A	Method Blank	Total Recoverable	Water	6010C	403181
LCS 500-403181/2-A	Lab Control Sample	Total Recoverable	Water	6010C	403181

Analysis Batch: 403446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-10	G44S	Total Recoverable	Water	6010C	403232
500-134554-11	R32S	Total Recoverable	Water	6010C	403232
MB 500-403232/1-A	Method Blank	Total Recoverable	Water	6010C	403232
LCS 500-403232/2-A	Lab Control Sample	Total Recoverable	Water	6010C	403232

Analysis Batch: 403522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-10	G44S	Total Recoverable	Water	6020A	403232
500-134554-11	R32S	Total Recoverable	Water	6020A	403232
MB 500-403232/1-A	Method Blank	Total Recoverable	Water	6020A	403232
LCS 500-403232/2-A	Lab Control Sample	Total Recoverable	Water	6020A	403232

Prep Batch: 403930

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	7470A	
500-134554-2	R08S	Total/NA	Water	7470A	
500-134554-3	T03S	Total/NA	Water	7470A	
500-134554-4	G45S	Total/NA	Water	7470A	
500-134554-5	G30S	Total/NA	Water	7470A	
500-134554-6	DUP	Total/NA	Water	7470A	
500-134554-7	G46S	Total/NA	Water	7470A	
500-134554-8	G48S	Total/NA	Water	7470A	
500-134554-9	G47S	Total/NA	Water	7470A	
500-134554-10	G44S	Total/NA	Water	7470A	
500-134554-11	R32S	Total/NA	Water	7470A	
MB 500-403930/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-403930/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 404087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-3	T03S	Total Recoverable	Water	6020A	402863
500-134554-3	T03S	Total Recoverable	Water	6020A	402863
500-134554-4	G45S	Total Recoverable	Water	6020A	402863
500-134554-5	G30S	Total Recoverable	Water	6020A	402863
500-134554-5	G30S	Total Recoverable	Water	6020A	402863
500-134554-6	DUP	Total Recoverable	Water	6020A	402863
500-134554-6	DUP	Total Recoverable	Water	6020A	402863
500-134554-7	G46S	Total Recoverable	Water	6020A	403026
500-134554-8	G48S	Total Recoverable	Water	6020A	403026
500-134554-9	G47S	Total Recoverable	Water	6020A	403026
500-134554-10	G44S	Total Recoverable	Water	6020A	403232
500-134554-11	R32S	Total Recoverable	Water	6020A	403232
MB 500-402863/1-A	Method Blank	Total Recoverable	Water	6020A	402863
MB 500-403026/1-A	Method Blank	Total Recoverable	Water	6020A	403026

Metals (Continued)

Analysis Batch: 404087 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-403232/1-A	Method Blank	Total Recoverable	Water	6020A	403232
LCS 500-402863/2-A	Lab Control Sample	Total Recoverable	Water	6020A	402863
LCS 500-403026/2-A	Lab Control Sample	Total Recoverable	Water	6020A	403026
LCS 500-403232/2-A	Lab Control Sample	Total Recoverable	Water	6020A	403232
500-134554-6 MS	DUP	Total Recoverable	Water	6020A	402863
500-134554-6 MS	DUP	Total Recoverable	Water	6020A	402863
500-134554-6 MSD	DUP	Total Recoverable	Water	6020A	402863
500-134554-6 MSD	DUP	Total Recoverable	Water	6020A	402863
500-134554-8 MS	G48S	Total Recoverable	Water	6020A	403026
500-134554-8 MSD	G48S	Total Recoverable	Water	6020A	403026
500-134554-6 DU	DUP	Total Recoverable	Water	6020A	402863
500-134554-6 DU	DUP	Total Recoverable	Water	6020A	402863
500-134554-8 DU	G48S	Total Recoverable	Water	6020A	403026

Analysis Batch: 404239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-7	G46S	Total Recoverable	Water	6020A	403026
500-134554-8	G48S	Total Recoverable	Water	6020A	403026
500-134554-9	G47S	Total Recoverable	Water	6020A	403026
500-134554-10	G44S	Total Recoverable	Water	6020A	403232
500-134554-11	R32S	Total Recoverable	Water	6020A	403232
MB 500-403026/1-A	Method Blank	Total Recoverable	Water	6020A	403026
MB 500-403232/1-A	Method Blank	Total Recoverable	Water	6020A	403232
LCS 500-403026/2-A	Lab Control Sample	Total Recoverable	Water	6020A	403026
LCS 500-403232/2-A	Lab Control Sample	Total Recoverable	Water	6020A	403232
500-134554-8 MS	G48S	Total Recoverable	Water	6020A	403026
500-134554-8 MSD	G48S	Total Recoverable	Water	6020A	403026
500-134554-8 DU	G48S	Total Recoverable	Water	6020A	403026

Analysis Batch: 404242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total Recoverable	Water	6020A	402791
500-134554-2	R08S	Total Recoverable	Water	6020A	402791
MB 500-402791/1-A	Method Blank	Total Recoverable	Water	6020A	402791
LCS 500-402791/2-A	Lab Control Sample	Total Recoverable	Water	6020A	402791
500-134554-2 MS	R08S	Total Recoverable	Water	6020A	402791
500-134554-2 MSD	R08S	Total Recoverable	Water	6020A	402791
500-134554-2 DU	R08S	Total Recoverable	Water	6020A	402791

Analysis Batch: 404509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total Recoverable	Water	6020A	402791
500-134554-2	R08S	Total Recoverable	Water	6020A	402791
MB 500-402791/1-A	Method Blank	Total Recoverable	Water	6020A	402791
LCS 500-402791/2-A	Lab Control Sample	Total Recoverable	Water	6020A	402791
500-134554-2 MS	R08S	Total Recoverable	Water	6020A	402791
500-134554-2 MSD	R08S	Total Recoverable	Water	6020A	402791
500-134554-2 DU	R08S	Total Recoverable	Water	6020A	402791

Metals (Continued)

Analysis Batch: 405066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	7470A	403930
500-134554-2	R08S	Total/NA	Water	7470A	403930
500-134554-3	T03S	Total/NA	Water	7470A	403930
500-134554-4	G45S	Total/NA	Water	7470A	403930
500-134554-5	G30S	Total/NA	Water	7470A	403930
500-134554-6	DUP	Total/NA	Water	7470A	403930
500-134554-7	G46S	Total/NA	Water	7470A	403930
500-134554-8	G48S	Total/NA	Water	7470A	403930
500-134554-9	G47S	Total/NA	Water	7470A	403930
500-134554-10	G44S	Total/NA	Water	7470A	403930
500-134554-11	R32S	Total/NA	Water	7470A	403930
MB 500-403930/12-A	Method Blank	Total/NA	Water	7470A	403930
LCS 500-403930/13-A	Lab Control Sample	Total/NA	Water	7470A	403930

General Chemistry

Analysis Batch: 402857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	SM 2540C	
500-134554-2	R08S	Total/NA	Water	SM 2540C	
500-134554-3	T03S	Total/NA	Water	SM 2540C	
500-134554-4	G45S	Total/NA	Water	SM 2540C	
500-134554-5	G30S	Total/NA	Water	SM 2540C	
500-134554-6	DUP	Total/NA	Water	SM 2540C	
MB 500-402857/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-402857/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-134554-1 DU	G20S	Total/NA	Water	SM 2540C	

Analysis Batch: 402895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	SM 4500 SO4 E	
500-134554-2	R08S	Total/NA	Water	SM 4500 SO4 E	
500-134554-3	T03S	Total/NA	Water	SM 4500 SO4 E	
500-134554-4	G45S	Total/NA	Water	SM 4500 SO4 E	
500-134554-5	G30S	Total/NA	Water	SM 4500 SO4 E	
500-134554-6	DUP	Total/NA	Water	SM 4500 SO4 E	
MB 500-402895/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-402895/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 403033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-7	G46S	Total/NA	Water	SM 2540C	
500-134554-8	G48S	Total/NA	Water	SM 2540C	
500-134554-9	G47S	Total/NA	Water	SM 2540C	
MB 500-403033/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-403033/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-134554-7 MS	G46S	Total/NA	Water	SM 2540C	
500-134554-7 DU	G46S	Total/NA	Water	SM 2540C	
500-134554-8 DU	G48S	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 403194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	SM 4500 F C	
500-134554-2	R08S	Total/NA	Water	SM 4500 F C	
500-134554-3	T03S	Total/NA	Water	SM 4500 F C	
500-134554-4	G45S	Total/NA	Water	SM 4500 F C	
500-134554-5	G30S	Total/NA	Water	SM 4500 F C	
500-134554-6	DUP	Total/NA	Water	SM 4500 F C	
500-134554-7	G46S	Total/NA	Water	SM 4500 F C	
500-134554-8	G48S	Total/NA	Water	SM 4500 F C	
500-134554-9	G47S	Total/NA	Water	SM 4500 F C	
MB 500-403194/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-403194/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-403194/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-403194/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-134554-9 MS	G47S	Total/NA	Water	SM 4500 F C	
500-134554-9 MSD	G47S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 403236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-10	G44S	Total/NA	Water	SM 2540C	
500-134554-11	R32S	Total/NA	Water	SM 2540C	
MB 500-403236/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-403236/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 403348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-10	G44S	Total/NA	Water	SM 4500 F C	
500-134554-11	R32S	Total/NA	Water	SM 4500 F C	
MB 500-403348/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-403348/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-134554-10 MS	G44S	Total/NA	Water	SM 4500 F C	
500-134554-10 MSD	G44S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 403461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	SM 4500 Cl- E	
500-134554-2	R08S	Total/NA	Water	SM 4500 Cl- E	
500-134554-3	T03S	Total/NA	Water	SM 4500 Cl- E	
500-134554-4	G45S	Total/NA	Water	SM 4500 Cl- E	
500-134554-5	G30S	Total/NA	Water	SM 4500 Cl- E	
500-134554-6	DUP	Total/NA	Water	SM 4500 Cl- E	
500-134554-7	G46S	Total/NA	Water	SM 4500 Cl- E	
500-134554-8	G48S	Total/NA	Water	SM 4500 Cl- E	
500-134554-9	G47S	Total/NA	Water	SM 4500 Cl- E	
500-134554-10	G44S	Total/NA	Water	SM 4500 Cl- E	
500-134554-11	R32S	Total/NA	Water	SM 4500 Cl- E	
MB 500-403461/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-403461/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 404833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-7	G46S	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 404833 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-8	G48S	Total/NA	Water	SM 4500 SO4 E	
500-134554-9	G47S	Total/NA	Water	SM 4500 SO4 E	
500-134554-10	G44S	Total/NA	Water	SM 4500 SO4 E	
500-134554-11	R32S	Total/NA	Water	SM 4500 SO4 E	
MB 500-404833/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-404833/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 403602

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	Field Sampling	
500-134554-2	R08S	Total/NA	Water	Field Sampling	
500-134554-3	T03S	Total/NA	Water	Field Sampling	
500-134554-4	G45S	Total/NA	Water	Field Sampling	
500-134554-5	G30S	Total/NA	Water	Field Sampling	
500-134554-6	DUP	Total/NA	Water	Field Sampling	
500-134554-7	G46S	Total/NA	Water	Field Sampling	
500-134554-8	G48S	Total/NA	Water	Field Sampling	
500-134554-9	G47S	Total/NA	Water	Field Sampling	
500-134554-10	G44S	Total/NA	Water	Field Sampling	
500-134554-11	R32S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-402863/1-A
Matrix: Water
Analysis Batch: 403075

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		09/27/17 07:01	09/28/17 01:13	1

Lab Sample ID: LCS 500-402863/2-A
Matrix: Water
Analysis Batch: 403075

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.530		mg/L		106	80 - 120

Lab Sample ID: 500-134554-6 MS
Matrix: Water
Analysis Batch: 403075

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.019		0.500	0.562		mg/L		109	75 - 125

Lab Sample ID: 500-134554-6 MSD
Matrix: Water
Analysis Batch: 403075

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.019		0.500	0.543		mg/L		105	75 - 125	3	20

Lab Sample ID: 500-134554-6 DU
Matrix: Water
Analysis Batch: 403075

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.019		0.0200		mg/L		6	20

Lab Sample ID: MB 500-403026/1-A
Matrix: Water
Analysis Batch: 403237

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		09/28/17 07:19	09/28/17 22:26	1

Lab Sample ID: LCS 500-403026/2-A
Matrix: Water
Analysis Batch: 403237

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.526		mg/L		105	80 - 120

Lab Sample ID: 500-134554-8 MS
Matrix: Water
Analysis Batch: 403237

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.019		0.500	0.546		mg/L		105	75 - 125

Lab Sample ID: 500-134554-8 MSD
Matrix: Water
Analysis Batch: 403237

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.019		0.500	0.535		mg/L		103	75 - 125	2	20

Lab Sample ID: 500-134554-8 DU
Matrix: Water
Analysis Batch: 403237

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.019		0.0186		mg/L		0.6	20

Lab Sample ID: MB 500-403181/1-A
Matrix: Water
Analysis Batch: 403335

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403181

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		09/28/17 15:29	09/29/17 13:35	1

Lab Sample ID: LCS 500-403181/2-A
Matrix: Water
Analysis Batch: 403335

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403181

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.472		mg/L		94	80 - 120

Lab Sample ID: MB 500-403232/1-A
Matrix: Water
Analysis Batch: 403446

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		09/29/17 07:17	09/29/17 17:09	1

Lab Sample ID: LCS 500-403232/2-A
Matrix: Water
Analysis Batch: 403446

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.490		mg/L		98	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-402791/1-A
Matrix: Water
Analysis Batch: 404242

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/26/17 14:18	10/05/17 13:15	1
Arsenic	<0.0010		0.0010		mg/L		09/26/17 14:18	10/05/17 13:15	1
Barium	<0.0025		0.0025		mg/L		09/26/17 14:18	10/05/17 13:15	1
Beryllium	<0.0010		0.0010		mg/L		09/26/17 14:18	10/05/17 13:15	1
Cadmium	<0.00050		0.00050		mg/L		09/26/17 14:18	10/05/17 13:15	1
Calcium	<0.20		0.20		mg/L		09/26/17 14:18	10/05/17 13:15	1
Chromium	<0.0050		0.0050		mg/L		09/26/17 14:18	10/05/17 13:15	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-402791/1-A
Matrix: Water
Analysis Batch: 404242

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010		mg/L		09/26/17 14:18	10/05/17 13:15	1
Lead	<0.00050		0.00050		mg/L		09/26/17 14:18	10/05/17 13:15	1
Molybdenum	<0.0050		0.0050		mg/L		09/26/17 14:18	10/05/17 13:15	1
Selenium	<0.0025		0.0025		mg/L		09/26/17 14:18	10/05/17 13:15	1
Thallium	<0.0020		0.0020		mg/L		09/26/17 14:18	10/05/17 13:15	1

Lab Sample ID: MB 500-402791/1-A
Matrix: Water
Analysis Batch: 404509

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		09/26/17 14:18	10/06/17 13:28	1

Lab Sample ID: LCS 500-402791/2-A
Matrix: Water
Analysis Batch: 404242

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.513		mg/L		103	80 - 120
Arsenic	0.100	0.0992		mg/L		99	80 - 120
Barium	0.500	0.519		mg/L		104	80 - 120
Beryllium	0.0500	0.0539		mg/L		108	80 - 120
Cadmium	0.0500	0.0523		mg/L		105	80 - 120
Calcium	10.0	9.68		mg/L		97	80 - 120
Chromium	0.200	0.210		mg/L		105	80 - 120
Cobalt	0.500	0.523		mg/L		105	80 - 120
Lead	0.100	0.103		mg/L		103	80 - 120
Molybdenum	1.00	0.992		mg/L		99	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: LCS 500-402791/2-A
Matrix: Water
Analysis Batch: 404509

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: 500-134554-2 MS
Matrix: Water
Analysis Batch: 404242

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.524		mg/L		105	75 - 125
Arsenic	0.0020		0.100	0.106		mg/L		104	75 - 125
Barium	0.048		0.500	0.568		mg/L		104	75 - 125
Beryllium	<0.0010		0.0500	0.0524		mg/L		105	75 - 125
Cadmium	<0.00050		0.0500	0.0513		mg/L		103	75 - 125
Calcium	140		10.0	144	4	mg/L		64	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-134554-2 MS
Matrix: Water
Analysis Batch: 404242

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	<0.0050		0.200	0.200		mg/L		99	75 - 125
Cobalt	<0.0010		0.500	0.495		mg/L		99	75 - 125
Lead	0.00067		0.100	0.104		mg/L		103	75 - 125
Molybdenum	0.38		1.00	1.35		mg/L		98	75 - 125
Selenium	0.0079		0.100	0.111		mg/L		104	75 - 125
Thallium	<0.0020		0.100	0.106		mg/L		106	75 - 125

Lab Sample ID: 500-134554-2 MS
Matrix: Water
Analysis Batch: 404509

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	7.3		1.00	8.50	4	mg/L		117	75 - 125

Lab Sample ID: 500-134554-2 MSD
Matrix: Water
Analysis Batch: 404242

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.519		mg/L		104	75 - 125	1	20
Arsenic	0.0020		0.100	0.105		mg/L		103	75 - 125	1	20
Barium	0.048		0.500	0.561		mg/L		103	75 - 125	1	20
Beryllium	<0.0010		0.0500	0.0501		mg/L		100	75 - 125	4	20
Cadmium	<0.00050		0.0500	0.0513		mg/L		103	75 - 125	0	20
Calcium	140		10.0	144	4	mg/L		60	75 - 125	0	20
Chromium	<0.0050		0.200	0.200		mg/L		99	75 - 125	0	20
Cobalt	<0.0010		0.500	0.493		mg/L		99	75 - 125	0	20
Lead	0.00067		0.100	0.102		mg/L		101	75 - 125	2	20
Molybdenum	0.38		1.00	1.36		mg/L		98	75 - 125	0	20
Selenium	0.0079		0.100	0.108		mg/L		101	75 - 125	3	20
Thallium	<0.0020		0.100	0.104		mg/L		104	75 - 125	2	20

Lab Sample ID: 500-134554-2 MSD
Matrix: Water
Analysis Batch: 404509

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	7.3		1.00	8.30	4	mg/L		97	75 - 125	2	20

Lab Sample ID: 500-134554-2 DU
Matrix: Water
Analysis Batch: 404242

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.0020		0.00192		mg/L		4	20
Barium	0.048		0.0477		mg/L		1	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-134554-2 DU
Matrix: Water
Analysis Batch: 404242

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Calcium	140			135		mg/L				2	20
Chromium	<0.0050			<0.0050		mg/L				NC	20
Cobalt	<0.0010			<0.0010		mg/L				NC	20
Lead	0.00067			<0.00050		mg/L				NC	20
Molybdenum	0.38			0.372		mg/L				2	20
Selenium	0.0079			0.00765		mg/L				3	20
Thallium	<0.0020			<0.0020		mg/L				NC	20

Lab Sample ID: 500-134554-2 DU
Matrix: Water
Analysis Batch: 404509

Client Sample ID: R08S
Prep Type: Total Recoverable
Prep Batch: 402791

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Boron	7.3			7.16		mg/L				2	20

Lab Sample ID: MB 500-402863/1-A
Matrix: Water
Analysis Batch: 403094

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		09/27/17 07:01	09/27/17 18:52	1
Chromium	<0.0050		0.0050		mg/L		09/27/17 07:01	09/27/17 18:52	1
Cobalt	<0.0010		0.0010		mg/L		09/27/17 07:01	09/27/17 18:52	1
Molybdenum	<0.0050		0.0050		mg/L		09/27/17 07:01	09/27/17 18:52	1
Selenium	<0.0025		0.0025		mg/L		09/27/17 07:01	09/27/17 18:52	1
Thallium	<0.0020		0.0020		mg/L		09/27/17 07:01	09/27/17 18:52	1

Lab Sample ID: MB 500-402863/1-A
Matrix: Water
Analysis Batch: 403281

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		09/27/17 07:01	09/28/17 18:25	1
Cadmium	<0.00050		0.00050		mg/L		09/27/17 07:01	09/28/17 18:25	1

Lab Sample ID: MB 500-402863/1-A
Matrix: Water
Analysis Batch: 404087

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/27/17 07:01	10/04/17 12:45	1
Beryllium	<0.0010		0.0010		mg/L		09/27/17 07:01	10/04/17 12:45	1
Boron	<0.050		0.050		mg/L		09/27/17 07:01	10/04/17 12:45	1
Calcium	<0.20		0.20		mg/L		09/27/17 07:01	10/04/17 12:45	1
Lead	<0.00050		0.00050		mg/L		09/27/17 07:01	10/04/17 12:45	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-402863/2-A
Matrix: Water
Analysis Batch: 403094

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.103		mg/L		103	80 - 120
Chromium	0.200	0.207		mg/L		104	80 - 120
Cobalt	0.500	0.529		mg/L		106	80 - 120
Molybdenum	1.00	0.978		mg/L		98	80 - 120
Selenium	0.100	0.107		mg/L		107	80 - 120
Thallium	0.100	0.111		mg/L		111	80 - 120

Lab Sample ID: LCS 500-402863/2-A
Matrix: Water
Analysis Batch: 403281

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.03		mg/L		102	80 - 120
Cadmium	0.0500	0.0577		mg/L		115	80 - 120

Lab Sample ID: LCS 500-402863/2-A
Matrix: Water
Analysis Batch: 404087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.536		mg/L		107	80 - 120
Beryllium	0.0500	0.0521		mg/L		104	80 - 120
Boron	1.00	1.09		mg/L		109	80 - 120
Calcium	10.0	10.2		mg/L		102	80 - 120
Lead	0.100	0.112		mg/L		112	80 - 120

Lab Sample ID: 500-134554-6 MS
Matrix: Water
Analysis Batch: 403094

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.011		0.100	0.124		mg/L		113	75 - 125
Chromium	<0.0050		0.200	0.203		mg/L		101	75 - 125
Cobalt	<0.0010		0.500	0.494		mg/L		99	75 - 125
Molybdenum	0.20	V	1.00	1.12		mg/L		92	75 - 125
Selenium	<0.0025	F1	0.100	0.0732	F1	mg/L		73	75 - 125
Thallium	<0.0020		0.100	0.103		mg/L		103	75 - 125

Lab Sample ID: 500-134554-6 MS
Matrix: Water
Analysis Batch: 403281

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.038		2.00	2.18		mg/L		107	75 - 125
Cadmium	<0.00050		0.0500	0.0518		mg/L		104	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-134554-6 MS
Matrix: Water
Analysis Batch: 404087

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	6.3		1.00	8.40	4	mg/L		213	75 - 125

Lab Sample ID: 500-134554-6 MS
Matrix: Water
Analysis Batch: 404087

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.574		mg/L		115	75 - 125
Beryllium	<0.0010		0.0500	0.0557		mg/L		111	75 - 125
Calcium	56		10.0	68.5	4	mg/L		127	75 - 125
Lead	<0.00050		0.100	0.112		mg/L		112	75 - 125

Lab Sample ID: 500-134554-6 MSD
Matrix: Water
Analysis Batch: 403094

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.011		0.100	0.121		mg/L		109	75 - 125	3	20
Chromium	<0.0050		0.200	0.196		mg/L		98	75 - 125	3	20
Cobalt	<0.0010		0.500	0.463		mg/L		93	75 - 125	7	20
Molybdenum	0.20	V	1.00	1.07		mg/L		87	75 - 125	5	20
Selenium	<0.0025	F1	0.100	0.0716	F1	mg/L		72	75 - 125	2	20
Thallium	<0.0020		0.100	0.107		mg/L		107	75 - 125	4	20

Lab Sample ID: 500-134554-6 MSD
Matrix: Water
Analysis Batch: 403281

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.038		2.00	2.13		mg/L		104	75 - 125	3	20
Cadmium	<0.00050		0.0500	0.0525		mg/L		105	75 - 125	1	20

Lab Sample ID: 500-134554-6 MSD
Matrix: Water
Analysis Batch: 404087

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	6.3		1.00	7.66	4	mg/L		138	75 - 125	9	20

Lab Sample ID: 500-134554-6 MSD
Matrix: Water
Analysis Batch: 404087

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.553		mg/L		111	75 - 125	4	20
Beryllium	<0.0010		0.0500	0.0535		mg/L		107	75 - 125	4	20
Calcium	56		10.0	66.4	4	mg/L		106	75 - 125	3	20
Lead	<0.00050		0.100	0.108		mg/L		108	75 - 125	3	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-134554-6 DU
Matrix: Water
Analysis Batch: 403094

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.011		0.0126		mg/L		9	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Molybdenum	0.20	V	0.211		mg/L		8	20
Selenium	<0.0025	F1	<0.0025		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-134554-6 DU
Matrix: Water
Analysis Batch: 403281

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.038		0.0405		mg/L		7	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20

Lab Sample ID: 500-134554-6 DU
Matrix: Water
Analysis Batch: 404087

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	6.3		6.97		mg/L		10	20

Lab Sample ID: 500-134554-6 DU
Matrix: Water
Analysis Batch: 404087

Client Sample ID: DUP
Prep Type: Total Recoverable
Prep Batch: 402863

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Calcium	56		58.6		mg/L		5	20
Lead	<0.00050		<0.00050		mg/L		NC	20

Lab Sample ID: MB 500-403026/1-A
Matrix: Water
Analysis Batch: 403281

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		09/28/17 07:19	09/28/17 19:14	1
Barium	<0.0025		0.0025		mg/L		09/28/17 07:19	09/28/17 19:14	1
Cadmium	<0.00050		0.00050		mg/L		09/28/17 07:19	09/28/17 19:14	1
Chromium	<0.0050		0.0050		mg/L		09/28/17 07:19	09/28/17 19:14	1
Cobalt	<0.0010		0.0010		mg/L		09/28/17 07:19	09/28/17 19:14	1
Molybdenum	<0.0050		0.0050		mg/L		09/28/17 07:19	09/28/17 19:14	1
Selenium	<0.0025		0.0025		mg/L		09/28/17 07:19	09/28/17 19:14	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-403026/1-A
Matrix: Water
Analysis Batch: 404087

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/28/17 07:19	10/04/17 14:07	1
Beryllium	<0.0010		0.0010		mg/L		09/28/17 07:19	10/04/17 14:07	1
Calcium	<0.20		0.20		mg/L		09/28/17 07:19	10/04/17 14:07	1
Lead	<0.00050		0.00050		mg/L		09/28/17 07:19	10/04/17 14:07	1
Thallium	<0.0020		0.0020		mg/L		09/28/17 07:19	10/04/17 14:07	1

Lab Sample ID: MB 500-403026/1-A
Matrix: Water
Analysis Batch: 404239

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		09/28/17 07:19	10/05/17 14:59	1

Lab Sample ID: LCS 500-403026/2-A
Matrix: Water
Analysis Batch: 403281

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.102		mg/L		102	80 - 120
Barium	2.00	1.99		mg/L		100	80 - 120
Cadmium	0.0500	0.0582		mg/L		116	80 - 120
Chromium	0.200	0.210		mg/L		105	80 - 120
Cobalt	0.500	0.542		mg/L		108	80 - 120
Molybdenum	1.00	0.991		mg/L		99	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: LCS 500-403026/2-A
Matrix: Water
Analysis Batch: 404087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.529		mg/L		106	80 - 120
Beryllium	0.0500	0.0537		mg/L		107	80 - 120
Calcium	10.0	9.98		mg/L		100	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Thallium	0.100	0.110		mg/L		110	80 - 120

Lab Sample ID: LCS 500-403026/2-A
Matrix: Water
Analysis Batch: 404239

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.09		mg/L		109	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-134554-8 MS
Matrix: Water
Analysis Batch: 403281

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.024		0.100	0.131		mg/L		107	75 - 125
Barium	0.019		2.00	2.06		mg/L		102	75 - 125
Cadmium	<0.00050		0.0500	0.0502		mg/L		100	75 - 125
Chromium	<0.0050		0.200	0.206		mg/L		103	75 - 125
Cobalt	<0.0010		0.500	0.511		mg/L		102	75 - 125
Molybdenum	0.72		1.00	1.67		mg/L		94	75 - 125
Selenium	<0.0025		0.100	0.0789		mg/L		79	75 - 125

Lab Sample ID: 500-134554-8 MS
Matrix: Water
Analysis Batch: 404087

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.558		mg/L		112	75 - 125
Beryllium	<0.0010		0.0500	0.0502		mg/L		100	75 - 125
Calcium	18		10.0	26.8		mg/L		92	75 - 125
Lead	<0.00050		0.100	0.107		mg/L		107	75 - 125
Thallium	<0.0020		0.100	0.108		mg/L		108	75 - 125

Lab Sample ID: 500-134554-8 MS
Matrix: Water
Analysis Batch: 404239

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	7.6		1.00	8.53	4	mg/L		96	75 - 125

Lab Sample ID: 500-134554-8 MSD
Matrix: Water
Analysis Batch: 403281

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.024		0.100	0.130		mg/L		106	75 - 125	1	20
Barium	0.019		2.00	2.01		mg/L		99	75 - 125	3	20
Cadmium	<0.00050		0.0500	0.0507		mg/L		101	75 - 125	1	20
Chromium	<0.0050		0.200	0.197		mg/L		98	75 - 125	4	20
Cobalt	<0.0010		0.500	0.487		mg/L		97	75 - 125	5	20
Molybdenum	0.72		1.00	1.69		mg/L		96	75 - 125	1	20
Selenium	<0.0025		0.100	0.0843		mg/L		84	75 - 125	7	20

Lab Sample ID: 500-134554-8 MSD
Matrix: Water
Analysis Batch: 404087

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.541		mg/L		108	75 - 125	3	20
Beryllium	<0.0010		0.0500	0.0501		mg/L		100	75 - 125	0	20
Calcium	18		10.0	26.5		mg/L		89	75 - 125	1	20
Lead	<0.00050		0.100	0.106		mg/L		106	75 - 125	1	20
Thallium	<0.0020		0.100	0.106		mg/L		106	75 - 125	2	20

Lab Sample ID: 500-134554-8 MSD
Matrix: Water
Analysis Batch: 404239

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	7.6		1.00	8.43	4	mg/L		86	75 - 125	1	20

Lab Sample ID: 500-134554-8 DU
Matrix: Water
Analysis Batch: 403281

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.024		0.0248		mg/L		3	20
Barium	0.019		0.0186		mg/L		0.2	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Molybdenum	0.72		0.728		mg/L		0.4	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-134554-8 DU
Matrix: Water
Analysis Batch: 404087

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Calcium	18		17.4		mg/L		1	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-134554-8 DU
Matrix: Water
Analysis Batch: 404239

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 403026

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	7.6		7.58		mg/L		0.08	20

Lab Sample ID: MB 500-403232/1-A
Matrix: Water
Analysis Batch: 403522

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		09/29/17 07:17	09/29/17 15:19	1
Barium	<0.0025		0.0025		mg/L		09/29/17 07:17	09/29/17 15:19	1
Chromium	<0.0050		0.0050		mg/L		09/29/17 07:17	09/29/17 15:19	1
Cobalt	<0.0010		0.0010		mg/L		09/29/17 07:17	09/29/17 15:19	1
Molybdenum	<0.0050		0.0050		mg/L		09/29/17 07:17	09/29/17 15:19	1
Selenium	<0.0025		0.0025		mg/L		09/29/17 07:17	09/29/17 15:19	1

Lab Sample ID: MB 500-403232/1-A
Matrix: Water
Analysis Batch: 404087

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		09/29/17 07:17	10/04/17 15:07	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-403232/1-A
Matrix: Water
Analysis Batch: 404087

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	<0.0010		0.0010		mg/L		09/29/17 07:17	10/04/17 15:07	1
Cadmium	<0.00050		0.00050		mg/L		09/29/17 07:17	10/04/17 15:07	1
Calcium	<0.20		0.20		mg/L		09/29/17 07:17	10/04/17 15:07	1
Lead	<0.00050		0.00050		mg/L		09/29/17 07:17	10/04/17 15:07	1
Thallium	<0.0020		0.0020		mg/L		09/29/17 07:17	10/04/17 15:07	1

Lab Sample ID: MB 500-403232/1-A
Matrix: Water
Analysis Batch: 404239

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		09/29/17 07:17	10/05/17 15:50	1

Lab Sample ID: LCS 500-403232/2-A
Matrix: Water
Analysis Batch: 403522

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0996		mg/L		100	80 - 120
Barium	2.00	1.91		mg/L		96	80 - 120
Chromium	0.200	0.210		mg/L		105	80 - 120
Cobalt	0.500	0.526		mg/L		105	80 - 120
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LCS 500-403232/2-A
Matrix: Water
Analysis Batch: 404087

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.538		mg/L		108	80 - 120
Beryllium	0.0500	0.0538		mg/L		108	80 - 120
Cadmium	0.0500	0.0534		mg/L		107	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120
Thallium	0.100	0.112		mg/L		112	80 - 120

Lab Sample ID: LCS 500-403232/2-A
Matrix: Water
Analysis Batch: 404239

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 403232

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.08		mg/L		108	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-403930/12-A
Matrix: Water
Analysis Batch: 405066

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 403930

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		10/04/17 12:30	10/12/17 08:25	1

Lab Sample ID: LCS 500-403930/13-A
Matrix: Water
Analysis Batch: 405066

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 403930

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00214		mg/L		107	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-402857/1
Matrix: Water
Analysis Batch: 402857

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			09/27/17 04:09	1

Lab Sample ID: LCS 500-402857/2
Matrix: Water
Analysis Batch: 402857

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	268		mg/L		107	80 - 120

Lab Sample ID: 500-134554-1 DU
Matrix: Water
Analysis Batch: 402857

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	440		454		mg/L		3	5

Lab Sample ID: MB 500-403033/1
Matrix: Water
Analysis Batch: 403033

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			09/28/17 07:11	1

Lab Sample ID: LCS 500-403033/2
Matrix: Water
Analysis Batch: 403033

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	266		mg/L		106	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 500-134554-7 MS — **Client Sample ID: G46S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 403033

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	890		250	1140		mg/L		98	75 - 125

Lab Sample ID: 500-134554-7 DU — **Client Sample ID: G46S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 403033

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	890		858		mg/L		4	5

Lab Sample ID: 500-134554-8 DU — **Client Sample ID: G48S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 403033

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1140		mg/L		4	5

Lab Sample ID: MB 500-403236/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 403236

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			09/29/17 06:08	1

Lab Sample ID: LCS 500-403236/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 403236

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	250		mg/L		100	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-403461/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 403461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			10/01/17 21:32	1

Lab Sample ID: LCS 500-403461/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 403461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	46.5		mg/L		93	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-403194/3
Matrix: Water
Analysis Batch: 403194

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			09/28/17 11:36	1

Lab Sample ID: MB 500-403194/31
Matrix: Water
Analysis Batch: 403194

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			09/28/17 13:03	1

Lab Sample ID: LCS 500-403194/32
Matrix: Water
Analysis Batch: 403194

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.2		mg/L		102	80 - 120

Lab Sample ID: LCS 500-403194/4
Matrix: Water
Analysis Batch: 403194

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.3		mg/L		103	80 - 120

Lab Sample ID: 500-134554-9 MS
Matrix: Water
Analysis Batch: 403194

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	2.0		5.00	7.23		mg/L		104	75 - 125

Lab Sample ID: 500-134554-9 MSD
Matrix: Water
Analysis Batch: 403194

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	2.0		5.00	7.16		mg/L		102	75 - 125	1	20

Lab Sample ID: MB 500-403348/3
Matrix: Water
Analysis Batch: 403348

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			09/29/17 10:24	1

Lab Sample ID: LCS 500-403348/4
Matrix: Water
Analysis Batch: 403348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.1		mg/L		101	80 - 120

Lab Sample ID: 500-134554-10 MS
Matrix: Water
Analysis Batch: 403348

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride	0.19		5.00	5.15		mg/L		99	75 - 125		

Lab Sample ID: 500-134554-10 MSD
Matrix: Water
Analysis Batch: 403348

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.19		5.00	5.13		mg/L		99	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-402895/3
Matrix: Water
Analysis Batch: 402895

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			09/27/17 08:25	1

Lab Sample ID: LCS 500-402895/4
Matrix: Water
Analysis Batch: 402895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	18.7		mg/L		94	80 - 120		

Lab Sample ID: MB 500-404833/3
Matrix: Water
Analysis Batch: 404833

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			10/11/17 08:03	1

Lab Sample ID: LCS 500-404833/4
Matrix: Water
Analysis Batch: 404833

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	18.6		mg/L		93	80 - 120		

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-134554 COC

Chain of Custody Record

Lab Job #: 500-134554

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 0.0 → 1.5

Report To (optional)	Bill To (optional)
Contact:	Contact:
Company:	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client: Midwest Generation EME LLC

Client Project #:

Project Name: Joliet #9 CCR - 3Q17 GW

Project Location/State: Joliet, IL

Lab Project #:

Sampler: Noe L., Lewis W.

Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
1		GW05	09/25/17	0800	4	W		1	1	1							
2		RW05	09/25/17	1230	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	09/25/17	1650	[signature]	TA-Ott	9/26/17	0705
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

10/12/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-134554
Chain of Custody Number:
Page ____ of ____
Temperature °C of Cooler: 2.9-3.0

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 3Q17
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Nate L., Lewis W.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°

500-134554 COC

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
3		TO35	09/26/17	0818	5	W		1	1	1							
4		G45S	09/26/17	1006	5	W		1	1	1							
5		G30S	09/26/17	1143	5	W		1	1	1							
6		DUP	09/26/17	1143	5	W		1	1	1							.. of G30S

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TMI	09/26/17	1455	[signature]	TALHI	09/26/17	1455
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

10/12/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-134554 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-134554

Chain of Custody Number:

Page of

Temperature °C of Cooler: 0.3-1.8

Client: Midwest Generation	Client Project #: EME LLC			Preservative	3	3	8										Preservative Key: 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Project Name: Joliet #29 CCR-3Q17				Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS											
Project Location/State: Joliet, IL	Lab Project #																	
Sampler: Noe L., Lewis W.	Lab PM: Eric Lang																	
Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix											Comments	
7		G46S	09/27/17	0825	5	W	—	—	—									
8		G48S	09/27/17	1120	5	W	—	—	—									
9		G47S	09/27/17	1305	5	W	—	—	—									

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	09/27/17	1505	[signature]	TA-CHI	9/27/17	1505
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

10/12/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-134554 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-134554

Chain of Custody Number:

Page _____ of _____

48 qt

Temperature °C of Cooler: 1.9 → 3.4

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet 29 CCR - 3Q17
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Lewis W.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226/228	Parameter: Total Metals	Parameter: Cl, Fl, SO4, TDS						Comments
							3	3	8							
10		G44S	09/28/17	0840	5	W		1	1	1						
11		R32S	09/28/17	1045	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	09/28/17	1510	[illegible]	TA-CHI	9/28/17	1510

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

10/12/2017

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-134554-1

Login Number: 134554
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5,3.0,1.8,3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-1

Client Sample ID: G20S

Date Collected: 09/25/17 08:00
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			403181	09/28/17 15:29	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	403335	09/29/17 13:43	PJ1	TAL CHI
Total Recoverable	Prep	3005A			402791	09/26/17 14:18	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	404509	10/06/17 13:38	FXG	TAL CHI
Total Recoverable	Prep	3005A			402791	09/26/17 14:18	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	404242	10/05/17 13:23	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 08:53	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	402857	09/27/17 04:52	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	403461	10/01/17 21:34	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 12:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	402895		CLB	TAL CHI
					(Start)	09/27/17 08:37		
					(End)	09/27/17 08:38		
Total/NA	Analysis	Field Sampling		1	403602	09/25/17 08:00	JVB	TAL CHI

Client Sample ID: R08S

Date Collected: 09/25/17 12:30
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			403181	09/28/17 15:29	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	403335	09/29/17 13:47	PJ1	TAL CHI
Total Recoverable	Prep	3005A			402791	09/26/17 14:18	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	404509	10/06/17 13:42	FXG	TAL CHI
Total Recoverable	Prep	3005A			402791	09/26/17 14:18	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	404242	10/05/17 13:27	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 08:56	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	402857	09/27/17 04:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:10	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 12:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	402895		CLB	TAL CHI
					(Start)	09/27/17 08:38		
					(End)	09/27/17 08:39		
Total/NA	Analysis	Field Sampling		1	403602	09/25/17 12:30	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-1

Client Sample ID: T03S

Date Collected: 09/26/17 08:18
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403075	09/28/17 01:20	PJ1	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403094	09/27/17 18:56	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403281	09/28/17 18:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	404087	10/04/17 12:53	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 15:35	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 08:58	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	402857	09/27/17 05:00	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:11	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 12:49	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	402895		CLB	TAL CHI
					(Start)	09/27/17 08:39		
					(End)	09/27/17 08:40		
Total/NA	Analysis	Field Sampling		1	403602	09/26/17 08:18	JVB	TAL CHI

Client Sample ID: G45S

Date Collected: 09/26/17 10:06
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403075	09/28/17 01:25	PJ1	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403094	09/27/17 18:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403281	09/28/17 18:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 12:57	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:00	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	402857	09/27/17 05:03	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:11	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 12:52	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	402895		CLB	TAL CHI
					(Start)	09/27/17 08:40		
					(End)	09/27/17 08:41		
Total/NA	Analysis	Field Sampling		1	403602	09/26/17 10:06	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-1

Client Sample ID: G30S

Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403075	09/28/17 01:29	PJ1	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403094	09/27/17 19:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403281	09/28/17 18:56	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	404087	10/04/17 13:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 15:39	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:02	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	402857	09/27/17 05:05	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:12	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 12:54	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	402895		CLB	TAL CHI
					(Start)	09/27/17 08:41		
					(End)	09/27/17 08:42		
Total/NA	Analysis	Field Sampling		1	403602	09/26/17 11:43	JVB	TAL CHI

Client Sample ID: DUP

Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403075	09/28/17 01:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403094	09/27/17 19:02	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403281	09/28/17 18:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	404087	10/04/17 13:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			402863	09/27/17 07:01	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 15:42	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:04	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	402857	09/27/17 05:08	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:12	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 12:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	402895		CLB	TAL CHI
					(Start)	09/27/17 08:42		
					(End)	09/27/17 08:43		

Client Sample ID: DUP

Lab Sample ID: 500-134554-6

Date Collected: 09/26/17 11:43

Matrix: Water

Date Received: 09/26/17 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	403602	09/26/17 11:43	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-134554-7

Date Collected: 09/27/17 08:25

Matrix: Water

Date Received: 09/27/17 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403237	09/28/17 22:34	PJ1	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403281	09/28/17 19:19	FXG	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		10	404239	10/05/17 15:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 16:01	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:06	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	403033	09/28/17 07:57	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:13	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 13:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	404833		CLB	TAL CHI
					(Start)	10/11/17 08:11		
					(End)	10/11/17 08:12		
Total/NA	Analysis	Field Sampling		1	403602	09/27/17 08:25	JVB	TAL CHI

Client Sample ID: G48S

Lab Sample ID: 500-134554-8

Date Collected: 09/27/17 11:20

Matrix: Water

Date Received: 09/27/17 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403237	09/28/17 22:38	PJ1	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403281	09/28/17 19:21	FXG	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	404239	10/05/17 15:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 16:05	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:08	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	403033	09/28/17 08:05	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:13	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 13:29	EAT	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	404833		CLB	TAL CHI
					(Start)	10/11/17 08:12		
					(End)	10/11/17 08:13		
Total/NA	Analysis	Field Sampling		1	403602	09/27/17 11:20	JVB	TAL CHI

Client Sample ID: G47S

Date Collected: 09/27/17 13:05
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403237	09/28/17 23:06	PJ1	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403281	09/28/17 19:35	FXG	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		100	404239	10/05/17 15:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			403026	09/28/17 07:19	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 16:32	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:15	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	403033	09/28/17 08:10	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:14	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403194	09/28/17 13:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	404833		CLB	TAL CHI
					(Start)	10/11/17 08:15		
					(End)	10/11/17 08:16		
Total/NA	Analysis	Field Sampling		1	403602	09/27/17 13:05	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 09/28/17 08:40
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403446	09/29/17 17:25	KML	TAL CHI
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403522	09/29/17 15:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	404239	10/05/17 16:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 15:15	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:17	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	403236	09/29/17 06:57	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	403461	10/01/17 21:45	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403348	09/29/17 10:31	EAT	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-1

Client Sample ID: G44S

Date Collected: 09/28/17 08:40
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		10	404833		CLB	TAL CHI
					(Start)	10/11/17 08:16		
					(End)	10/11/17 08:17		
Total/NA	Analysis	Field Sampling		1	403602	09/28/17 08:40	JVB	TAL CHI

Client Sample ID: R32S

Date Collected: 09/28/17 10:45
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	403446	09/29/17 17:29	KML	TAL CHI
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	403522	09/29/17 15:28	FXG	TAL CHI
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		100	404239	10/05/17 16:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			403232	09/29/17 07:17	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	404087	10/04/17 16:36	FXG	TAL CHI
Total/NA	Prep	7470A			403930	10/04/17 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	405066	10/12/17 09:19	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	403236	09/29/17 06:59	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	403461	10/01/17 22:14	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	403348	09/29/17 10:39	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	404833		CLB	TAL CHI
					(Start)	10/11/17 08:17		
					(End)	10/11/17 08:18		
Total/NA	Analysis	Field Sampling		1	403602	09/28/17 10:45	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry #9CCR
Job #: 500-134554-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/25/17 Start Purge: 0940 (2400 Hr. Clock) End Purge: 0800

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

		1st	2nd	Final	
Well Diameter	2.0 (inches)				
Stick Up	2.78 (ft)	pH	7.34	7.30	7.30 (std.)
Ref. Measuring Pt.	TIC	SC	595	596	596 (umhos/cm)
Well Elevation	*580.33 (ft./msl)	Temp.	17.90	18.00	18.00 (°C)
Water Level	49.02 (ft.)				
Ground Water Elev.	531.31 (ft./msl)				
Well Bottom Elevation	*442.28 (ft./msl)				

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 66°F, Sunny, SE wind 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 49.02 - 2.78 = 46.24 (ft.)

Levels were taken on 09/25/17 @ 0730.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-134554-2

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/25/17 Start Purge: 1215 (2400 Hr. Clock) End Purge: 1230

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 65.72 (ft.)
Ground Water Elev. 512.93 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.48	7.57	7.57	(std.)
SC	980	980	980	(umhos/cm)
Temp.	16.09	16.08	16.08	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 90°F, Sunny, SE winds 0-5 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 65.72 - 2.55 = 63.17 (ft.)
Levels were taken on 09/25/17 @ 1216.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-134554-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N) Y
Sampling Bladder Pump Dedicated (Y/N) Y

PURGING INFORMATION

Purge Date: 09/26/17 Start Purge: 0800 (2400 Hr. Clock) End Purge: 0818

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.65 (ft./msl)
Water Level 136.40 (ft.)
Ground Water Elev. 493.25 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.14	7.19	7.19	(std.)
SC	1,021	1,019	1,019	(umhos/cm)
Temp.	15.63	15.45	15.45	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 70°F, Partly Cloudy, S winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 136.40 - 3.08 = 133.32 (Ft.)
Levels were taken on 09/26/17 @ 0750
* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-134554-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/26/17 Start Purge: 0950 (2400 Hr. Clock) End Purge: 1006

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

	1st	2nd	Final	
Well Diameter 2.0 (inches)				
Stick Up 2.97 (ft)	pH	7.20	7.21	7.21 (std.)
Ref. Measuring Pt. TIC	SC	999	992	992 (umhos/cm)
Well Elevation *603.31 (ft./msl)	Temp.	15.18	15.10	15.10 (°C)
Water Level 63.10 (ft.)				
Ground Water Elev. 540.21 (ft./msl)				
Well Bottom Elevation *471.05 (ft./msl)				

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 81°F, Fair, S winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 63.10 - 2.97 = 60.13 (ft)
Levels were taken on 09/26/17 @ 0945.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry #9CCR
Job #: 500-134554-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/26/17 Start Purge: 1125 (2400 Hr. Clock) End Purge: 1143

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.35

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 1.84 (ft.)
Ground Water Elev. 522.56 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	8.06	8.07	8.07	(std.)
SC	1490	1480	1480	(umhos/cm)
Temp.	16.12	16.34	16.34	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 87°F, Sunny, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.84 - 2.31 = -0.47 (ft.)
Levels were taken on 09/26/17 @ 1115.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S Dup
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-134554-16

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 2.31 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *524.40 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *462.58 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. = _____

Levels were taken on @ .

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-134554-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/27/17 Start Purge: 0805 (2400 Hr. Clock) End Purge: 0825

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 96.61 (ft.)

Ground Water Elev. 504.71 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.25	7.28	7.28	(std.)
SC	1,165	1,164	1,164	(umhos/cm)
Temp.	14.71	14.82	14.82	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 64°F, Cloudy, N winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 96.61 - 2.70 = 93.91 (ft.)

Levels were taken on 09/27/17 @ 0755.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-134554-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/27/17 Start Purge: 1100 (2400 Hr. Clock) End Purge: 1120

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 102.88 (ft.)
Ground Water Elev. 517.89 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	8.90	8.94	8.94	(std.)
SC	1455	1452	1452	(umhos/cm)
Temp.	15.02	15.05	15.05	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 67°F, Mostly Cloudy, NW wind @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 102.88 - 2.45 = 100.43 (ft.)
Levels were taken on 09/27/17 @ 1055.

Sampler Name (Print): Nae Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500 134554-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/27/17 Start Purge: 1245 (2400 Hr. Clock) End Purge: 1305

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 93.50 (ft.)
Ground Water Elev. 518.82 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	10.13	10.15	10.15	(std.)
SC	2,460	2,470	2,470	(umhos/cm)
Temp.	18.92	18.78	18.78	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 70°F, Fair, NW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 93.50 - 2.50 = 91.00 (ft.)
Levels were taken on 09/27/17 @ 1235.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-134554-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/28/17 Start Purge: 0826 (2400 Hr. Clock) End Purge: 0840

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.15 (ft.)
Ground Water Elev. 506.54 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.10	7.13	7.13	(std.)
SC	789	791	791	(umhos/cm)
Temp.	13.87	13.73	13.73	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 61 °F, Sunny, N winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.15 - 2.18 = 77.97 (AL)
Levels were taken on 09/28/17 @ 0750.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-134554-11

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 09/28/17 Start Purge: 1026 (2400 Hr. Clock) End Purge: 1045

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.81 (ft./msl)
Water Level 17.91 (ft.)
Ground Water Elev. 518.90 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final
pH	7.27	7.29	7.29 (std.)
SC	708	708	708 (umhos/cm)
Temp.	12.48	12.45	12.45 (°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor:
Weather Conditions:
Other: *Reference Measurement
Depth To Water from L.S. = 17.91 - 2.03 = 15.88 (ft.)
Levels were taken on 09/28/17 @ 1020.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-134554-2
Client Project/Site: Joliet #9 CCR - 3Q17

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
10/26/2017 4:25:50 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Job ID: 500-134554-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-134554-2

Comments
No additional comments.

Receipt
The samples were received on 9/25/2017 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 1.5º C, 1.8º C, 3.0º C and 3.4º C.

RAD
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-134554-1	G20S	Water	09/25/17 08:00	09/25/17 16:50
500-134554-2	R08S	Water	09/25/17 12:30	09/25/17 16:50
500-134554-3	T03S	Water	09/26/17 08:18	09/26/17 14:55
500-134554-4	G45S	Water	09/26/17 10:06	09/26/17 14:55
500-134554-5	G30S	Water	09/26/17 11:43	09/26/17 14:55
500-134554-6	DUP	Water	09/26/17 11:43	09/26/17 14:55
500-134554-7	G46S	Water	09/27/17 08:25	09/27/17 15:05
500-134554-8	G48S	Water	09/27/17 11:20	09/27/17 15:05
500-134554-9	G47S	Water	09/27/17 13:05	09/27/17 15:05
500-134554-10	G44S	Water	09/28/17 08:40	09/28/17 15:10
500-134554-11	R32S	Water	09/28/17 10:45	09/28/17 15:10

Client Sample ID: G20S

Date Collected: 09/25/17 08:00
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.05		0.169	0.194	1.00	0.0895	pCi/L	09/28/17 13:32	10/20/17 06:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*09/28/17 13:32*	*10/20/17 06:24*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13		0.272	0.291	1.00	0.310	pCi/L	09/28/17 13:54	10/09/17 13:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*
Y Carrier	*77.8*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.19		0.320	0.350	5.00	0.310	pCi/L		10/25/17 18:29	1

Client Sample ID: R08S

Date Collected: 09/25/17 12:30
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-2

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.755		0.148	0.163	1.00	0.0833	pCi/L	09/28/17 13:32	10/20/17 06:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*09/28/17 13:32*	*10/20/17 06:24*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.516		0.227	0.232	1.00	0.316	pCi/L	09/28/17 13:54	10/09/17 13:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*
Y Carrier	*77.4*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.27		0.271	0.284	5.00	0.316	pCi/L		10/25/17 18:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: T03S
Date Collected: 09/26/17 08:18
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-3
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.686		0.141	0.154	1.00	0.0805	pCi/L	09/28/17 13:32	10/20/17 06:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*09/28/17 13:32*	*10/20/17 06:24*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.644		0.261	0.268	1.00	0.368	pCi/L	09/28/17 13:54	10/09/17 13:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.8*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*
Y Carrier	*78.5*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.33		0.297	0.309	5.00	0.368	pCi/L		10/25/17 18:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G45S
Date Collected: 09/26/17 10:06
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-4
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.44		0.202	0.240	1.00	0.0743	pCi/L	09/28/17 13:32	10/20/17 06:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*09/28/17 13:32*	*10/20/17 06:24*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.701		0.252	0.260	1.00	0.341	pCi/L	09/28/17 13:54	10/09/17 13:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*
Y Carrier	*78.5*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.14		0.323	0.354	5.00	0.341	pCi/L		10/25/17 18:29	1

Client Sample ID: G30S

Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.754		0.144	0.159	1.00	0.0822	pCi/L	09/28/17 13:32	10/20/17 08:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*09/28/17 13:32*	*10/20/17 08:14*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.654		0.238	0.245	1.00	0.317	pCi/L	09/28/17 13:54	10/09/17 13:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*
Y Carrier	*78.1*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.41		0.278	0.292	5.00	0.317	pCi/L		10/25/17 18:29	1

Client Sample ID: DUP

Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-6

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.831		0.151	0.168	1.00	0.0821	pCi/L	09/28/17 13:32	10/20/17 08:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*09/28/17 13:32*	*10/20/17 08:14*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13		0.286	0.305	1.00	0.348	pCi/L	09/28/17 13:54	10/09/17 13:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*
Y Carrier	*77.8*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.96		0.323	0.348	5.00	0.348	pCi/L		10/25/17 18:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G46S
Date Collected: 09/27/17 08:25
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-7
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.330		0.0976	0.102	1.00	0.0826	pCi/L	09/28/17 13:32	10/20/17 08:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*09/28/17 13:32*	*10/20/17 08:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.424		0.231	0.235	1.00	0.343	pCi/L	09/28/17 13:54	10/09/17 13:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*
Y Carrier	*75.1*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.754		0.251	0.256	5.00	0.343	pCi/L		10/25/17 18:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G48S
Date Collected: 09/27/17 11:20
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-8
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.762		0.143	0.159	1.00	0.0774	pCi/L	09/28/17 13:32	10/20/17 08:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*09/28/17 13:32*	*10/20/17 08:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.561		0.223	0.229	1.00	0.297	pCi/L	09/28/17 13:54	10/09/17 13:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*
Y Carrier	*75.1*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.32		0.265	0.279	5.00	0.297	pCi/L		10/25/17 18:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G47S
Date Collected: 09/27/17 13:05
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-9
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.370		0.106	0.111	1.00	0.0720	pCi/L	09/28/17 13:32	10/20/17 08:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*40 - 110*	*09/28/17 13:32*	*10/20/17 08:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.466		0.254	0.258	1.00	0.377	pCi/L	09/28/17 13:54	10/09/17 13:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.7*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*
Y Carrier	*76.6*		*40 - 110*	*09/28/17 13:54*	*10/09/17 13:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.836		0.275	0.281	5.00	0.377	pCi/L		10/25/17 18:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G44S
Date Collected: 09/28/17 08:40
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.308**		0.110	0.113	1.00	0.115	pCi/L	10/02/17 12:07	10/24/17 07:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*10/02/17 12:07*	*10/24/17 07:01*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.306	U	0.270	0.272	1.00	0.434	pCi/L	10/02/17 12:38	10/12/17 16:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*10/02/17 12:38*	*10/12/17 16:27*	*1*
Y Carrier	*80.7*		*40 - 110*	*10/02/17 12:38*	*10/12/17 16:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.614**		0.292	0.295	5.00	0.434	pCi/L		10/25/17 18:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: R32S
Date Collected: 09/28/17 10:45
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-11
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.28		0.203	0.234	1.00	0.0905	pCi/L	10/02/17 12:07	10/24/17 09:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*10/02/17 12:07*	*10/24/17 09:08*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.510		0.290	0.294	1.00	0.439	pCi/L	10/02/17 12:38	10/12/17 16:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*10/02/17 12:38*	*10/12/17 16:28*	*1*
Y Carrier	*77.8*		*40 - 110*	*10/02/17 12:38*	*10/12/17 16:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.79		0.354	0.376	5.00	0.439	pCi/L		10/25/17 18:29	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 329501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	PrecSep-21	
500-134554-2	R08S	Total/NA	Water	PrecSep-21	
500-134554-3	T03S	Total/NA	Water	PrecSep-21	
500-134554-4	G45S	Total/NA	Water	PrecSep-21	
500-134554-5	G30S	Total/NA	Water	PrecSep-21	
500-134554-6	DUP	Total/NA	Water	PrecSep-21	
500-134554-7	G46S	Total/NA	Water	PrecSep-21	
500-134554-8	G48S	Total/NA	Water	PrecSep-21	
500-134554-9	G47S	Total/NA	Water	PrecSep-21	
MB 160-329501/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-329501/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 329507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-1	G20S	Total/NA	Water	PrecSep_0	
500-134554-2	R08S	Total/NA	Water	PrecSep_0	
500-134554-3	T03S	Total/NA	Water	PrecSep_0	
500-134554-4	G45S	Total/NA	Water	PrecSep_0	
500-134554-5	G30S	Total/NA	Water	PrecSep_0	
500-134554-6	DUP	Total/NA	Water	PrecSep_0	
500-134554-7	G46S	Total/NA	Water	PrecSep_0	
500-134554-8	G48S	Total/NA	Water	PrecSep_0	
500-134554-9	G47S	Total/NA	Water	PrecSep_0	
MB 160-329507/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-329507/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 329898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-10	G44S	Total/NA	Water	PrecSep-21	
500-134554-11	R32S	Total/NA	Water	PrecSep-21	
MB 160-329898/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-329898/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-134554-10 DU	G44S	Total/NA	Water	PrecSep-21	

Prep Batch: 329900

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-134554-10	G44S	Total/NA	Water	PrecSep_0	
500-134554-11	R32S	Total/NA	Water	PrecSep_0	
MB 160-329900/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-329900/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-134554-10 DU	G44S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-329501/1-A
Matrix: Water
Analysis Batch: 332858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 329501

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01044	U	0.0383	0.0384	1.00	0.0765	pCi/L	09/28/17 13:32	10/20/17 06:23	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*105*		*40 - 110*	*09/28/17 13:32*	*10/20/17 06:23*	*1*

Lab Sample ID: LCS 160-329501/2-A
Matrix: Water
Analysis Batch: 332858

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 329501

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			9.60	9.399		0.973	1.00	0.0476	pCi/L	98	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*109*		*40 - 110*

Lab Sample ID: MB 160-329898/1-A
Matrix: Water
Analysis Batch: 333586

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 329898

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.02498	U	0.0450	0.0451	1.00	0.0806	pCi/L	10/02/17 12:07	10/24/17 06:55	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*10/02/17 12:07*	*10/24/17 06:55*	*1*

Lab Sample ID: LCS 160-329898/2-A
Matrix: Water
Analysis Batch: 333586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 329898

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			9.60	9.846		1.02	1.00	0.0799	pCi/L	103	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*98.8*		*40 - 110*

Lab Sample ID: 500-134554-10 DU
Matrix: Water
Analysis Batch: 333669

Client Sample ID: G44S
Prep Type: Total/NA
Prep Batch: 329898

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.308			0.5875		0.153	1.00	0.113	pCi/L			1.05	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 500-134554-10 DU
Matrix: Water
Analysis Batch: 333669

Client Sample ID: G44S
Prep Type: Total/NA
Prep Batch: 329898

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.2		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-329507/1-A
Matrix: Water
Analysis Batch: 330839

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 329507

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2236	U	0.206	0.207	1.00	0.332	pCi/L	09/28/17 13:54	10/09/17 13:05	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110	09/28/17 13:54	10/09/17 13:05	1
Y Carrier	74.4		40 - 110	09/28/17 13:54	10/09/17 13:05	1

Lab Sample ID: LCS 160-329507/2-A
Matrix: Water
Analysis Batch: 330839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 329507

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			12.8	14.95		1.58	1.00	0.298	pCi/L	117	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	109		40 - 110
Y Carrier	73.6		40 - 110

Lab Sample ID: MB 160-329900/1-A
Matrix: Water
Analysis Batch: 331468

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 329900

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.04359	U	0.233	0.233	1.00	0.409	pCi/L	10/02/17 12:38	10/12/17 16:26	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110	10/02/17 12:38	10/12/17 16:26	1
Y Carrier	81.1		40 - 110	10/02/17 12:38	10/12/17 16:26	1

Lab Sample ID: LCS 160-329900/2-A
Matrix: Water
Analysis Batch: 331469

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 329900

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			12.8	13.85		1.52	1.00	0.440	pCi/L	108	56 - 140		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	98.8		40 - 110
Y Carrier	81.9		40 - 110

Lab Sample ID: 500-134554-10 DU
Matrix: Water
Analysis Batch: 331468

Client Sample ID: G44S
Prep Type: Total/NA
Prep Batch: 329900

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.306	U		0.3979	U	0.292	1.00	0.454	pCi/L			0.16	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.2		40 - 110
Y Carrier	73.6		40 - 110

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-134554 COC

Chain of Custody Record

Lab Job #: 500-134554

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 0.0 → 1.5

Report To (optional)	Bill To (optional)
Contact:	Contact:
Company:	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client: Midwest Generation EME LLC	Client Project #:
Project Name: Joliet #9 CCR - 3Q17 GW	
Project Location/State: Joliet, IL.	Lab Project #
Sampler: Noe L., Lewis W.	Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
1		G20S	09/25/17	0800	4	W		—	—	—							
2		R08S	09/25/17	1230	5	W		—	—	—							

Turnaround Time Required (Business Days)

___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other

Requested Due Date _____

Sample Disposal

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	09/25/17	1650	[signature]	TA-Ott	9/26/17	0705
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA

Shipped:

Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-134554

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 2.9-3.0

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 3Q17
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Nate L., Lewis W.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°

500-134554 COC

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	HCl, Fl, SO4, TDS							
3		TO35	09/26/17	0818	5	W		1	1	1							
4		G45S	09/26/17	1006	5	W		1	1	1							
5		G30S	09/26/17	1143	5	W		1	1	1							
6		DUP	09/26/17	1143	5	W		1	1	1							.. of G30S

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TMI	09/26/17	1455	[signature]	TALHI	09/26/17	1455
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

10/26/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-134554 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-134554

Chain of Custody Number:

Page of

Temperature °C of Cooler: 0.3-1.8

Client: Midwest Generation | Client Project #: EME LLC

Project Name: Joliet #9 CCR-3017

Project Location/State: Joliet, IL | Lab Project #:

Sampler: Noe L., Lewis W. | Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							Comments
7		G465	09/27/17	0825	5	W		—	—	—																	
8		G485	09/27/17	1120	5	W		—	—	—																	
9		G475	09/27/17	1305	5	W		—	—	—																	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	09/27/17	1505		TA-CHI	9/27/17	1505
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TAL-4124-500 (1209)

10/26/2017

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-134554 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-134554

Chain of Custody Number:

Page _____ of _____

48 qt

Temperature °C of Cooler: 1.9 → 3.4

Client	Client Project #	Preservative	3	3	8						
Midwest Generation	EME LLC										
Project Name: Joliet #29 CCR - 3Q17		Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						
Project Location/State: Joliet, IL	Lab Project #										
Sampler: Noe L., Lewis W.	Lab PM: Eric Lang										

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix								Comments
10		G44S	09/28/17	0840	5	W	1	1	1					
11		R32S	09/28/17	1045	5	W	1	1	1					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	09/28/17	1510	[illegible]	TA-CHI	9/28/17	1510
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TAL-4124-500 (1209)

10/26/2017

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-93512.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-134554-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/23/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-134554-1)	9/25/17	08:00 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-134554-2)	9/25/17	12:30 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: [signature]	Date/Time: 09/26/17 @ 1600	Company: TA	Received by: [signature] Date/Time: 9/27/17 0915 Company: TASL
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

10/26/2017

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-93517.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-134554-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/5/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR - 3Q17	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T03S (500-134554-3)	9/26/17	08:18 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-134554-4)	9/26/17	10:06 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G30S (500-134554-5)	9/26/17	11:43 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-134554-6)	9/26/17	11:43 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	9/26/17 1600		[signature]	9/15/17 0915	TAST
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-93560.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-134554-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/5/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR - 3Q17	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Ra226Ra228_GFPC	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G46S (500-134554-7)	9/27/17	08:25 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G48S (500-134554-8)	9/27/17	11:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-134554-9)	9/27/17	13:05 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	09/27/17 @ 1600	TA	[signature]	9/28/17 0900	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

10/26/2017

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-93617.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-134554-2
Address: 13715 Rider Trail North,	Due Date Requested: 10/26/2017			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045	PO #:			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:			
Email:	Project #: 50011504			
Project Name: Joliet #9 CCR	SSOW#:			
Site: NRG Midwest Generation LSQ Joliet #9 CCR				

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	900.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226/Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G44S (500-134554-10)	9/28/17	08:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume
R32S (500-134554-11)	9/28/17	10:45 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: Samples received on 9/29/17 @ 0910
Relinquished by:	Date/Time: 9/28/17 1630	Company: TA	Received by:	Date/Time: 10/26/17 1530	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

10/26/2017

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-134554-2

Login Number: 134554
List Number: 1
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5,3.0,1.8,3.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-134554-2

Login Number: 134554
List Number: 2
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis
List Creation: 09/27/17 03:35 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-134554-2

Login Number: 134554
List Number: 3
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis
List Creation: 09/28/17 12:27 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	17.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-134554-2

Login Number: 134554
List Number: 4
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis
List Creation: 09/29/17 12:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	18.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G20S
Date Collected: 09/25/17 08:00
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332858	10/20/17 06:24	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: R08S
Date Collected: 09/25/17 12:30
Date Received: 09/25/17 16:50

Lab Sample ID: 500-134554-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332858	10/20/17 06:24	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: T03S
Date Collected: 09/26/17 08:18
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332858	10/20/17 06:24	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: G45S
Date Collected: 09/26/17 10:06
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332858	10/20/17 06:24	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:08	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G30S
Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332859	10/20/17 08:14	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: DUP
Date Collected: 09/26/17 11:43
Date Received: 09/26/17 14:55

Lab Sample ID: 500-134554-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332859	10/20/17 08:14	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: G46S
Date Collected: 09/27/17 08:25
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332859	10/20/17 08:15	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: G48S
Date Collected: 09/27/17 11:20
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332859	10/20/17 08:15	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Client Sample ID: G47S

Date Collected: 09/27/17 13:05
Date Received: 09/27/17 15:05

Lab Sample ID: 500-134554-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329501	09/28/17 13:32	LDE	TAL SL
Total/NA	Analysis	903.0		1	332859	10/20/17 08:15	ALD	TAL SL
Total/NA	Prep	PrecSep_0			329507	09/28/17 13:54	LDE	TAL SL
Total/NA	Analysis	904.0		1	330839	10/09/17 13:09	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: G44S

Date Collected: 09/28/17 08:40
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329898	10/02/17 12:07	LDE	TAL SL
Total/NA	Analysis	903.0		1	333669	10/24/17 07:01	RTM	TAL SL
Total/NA	Prep	PrecSep_0			329900	10/02/17 12:38	LDE	TAL SL
Total/NA	Analysis	904.0		1	331468	10/12/17 16:27	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Client Sample ID: R32S

Date Collected: 09/28/17 10:45
Date Received: 09/28/17 15:10

Lab Sample ID: 500-134554-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			329898	10/02/17 12:07	LDE	TAL SL
Total/NA	Analysis	903.0		1	333669	10/24/17 09:08	RTM	TAL SL
Total/NA	Prep	PrecSep_0			329900	10/02/17 12:38	LDE	TAL SL
Total/NA	Analysis	904.0		1	331468	10/12/17 16:28	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	333962	10/25/17 18:29	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 3Q17

TestAmerica Job ID: 500-134554-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-134554-1	G20S	103
500-134554-2	R08S	95.9
500-134554-3	T03S	96.8
500-134554-4	G45S	98.5
500-134554-5	G30S	99.1
500-134554-6	DUP	99.4
500-134554-7	G46S	102
500-134554-8	G48S	102
500-134554-9	G47S	89.7
500-134554-10	G44S	94.7
500-134554-10 DU	G44S	96.2
500-134554-11	R32S	93.2
LCS 160-329501/2-A	Lab Control Sample	109
LCS 160-329898/2-A	Lab Control Sample	98.8
MB 160-329501/1-A	Method Blank	105
MB 160-329898/1-A	Method Blank	97.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-134554-1	G20S	103	77.8
500-134554-2	R08S	95.9	77.4
500-134554-3	T03S	96.8	78.5
500-134554-4	G45S	98.5	78.5
500-134554-5	G30S	99.1	78.1
500-134554-6	DUP	99.4	77.8
500-134554-7	G46S	102	75.1
500-134554-8	G48S	102	75.1
500-134554-9	G47S	89.7	76.6
500-134554-10	G44S	94.7	80.7
500-134554-10 DU	G44S	96.2	73.6
500-134554-11	R32S	93.2	77.8
LCS 160-329507/2-A	Lab Control Sample	109	73.6
LCS 160-329900/2-A	Lab Control Sample	98.8	81.9
MB 160-329507/1-A	Method Blank	105	74.4
MB 160-329900/1-A	Method Blank	97.9	81.1

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145553-1
Client Project/Site: Joliet #9 CCR - 2Q18 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
6/5/2018 3:54:52 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Job ID: 500-145553-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-145553-1

Comments
No additional comments.

Receipt
The samples were received on 5/16/2018 3:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6º C, 3.4º C, 3.8º C and 5.4º C.

Metals
Method(s) 6020A: The initial calibration verification low level (ICVL) in AD batch 432940 recovered above the upper control limit for Lead. The samples associated with this QC were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-433252. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-433604. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-433664. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-434570. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145553-1	G20S	GW	05/16/18 09:45	05/16/18 15:10
500-145553-2	G30S	GW	05/17/18 09:13	05/17/18 15:35
500-145553-3	DUP	Water	05/17/18 09:13	05/17/18 15:35
500-145553-4	G44S	GW	05/17/18 12:34	05/17/18 15:35
500-145553-5	T03S	GW	05/17/18 13:55	05/17/18 15:35
500-145553-6	G48S	GW	05/18/18 08:45	05/18/18 14:45
500-145553-7	G47S	GW	05/18/18 10:07	05/18/18 14:45
500-145553-8	G46S	GW	05/18/18 12:20	05/18/18 14:45
500-145553-9	R08S	GW	05/18/18 13:20	05/18/18 14:45
500-145553-10	R32S	Water	05/21/18 10:04	05/21/18 12:35
500-145553-11	G45S	Water	05/21/18 11:15	05/21/18 12:35

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G20S
Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.040		0.010		mg/L		05/17/18 07:32	05/18/18 01:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/17/18 07:32	05/18/18 01:51	1
Barium	0.049		0.0025		mg/L		05/17/18 07:32	05/18/18 01:51	1
Boron	1.2		0.050		mg/L		05/17/18 07:32	05/18/18 01:51	1
Calcium	61		0.20		mg/L		05/17/18 07:32	05/18/18 01:51	1
Cobalt	0.0024		0.0010		mg/L		05/17/18 07:32	05/18/18 01:51	1
Lead	<0.00050	^	0.00050		mg/L		05/17/18 07:32	05/18/18 01:51	1
Molybdenum	0.019		0.0050		mg/L		05/17/18 07:32	05/18/18 01:51	1
Selenium	<0.0025		0.0025		mg/L		05/17/18 07:32	05/18/18 01:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		10		mg/L			05/17/18 04:15	1
Chloride	12		2.0		mg/L			05/20/18 21:14	1
Fluoride	0.75		0.10		mg/L			05/26/18 15:32	1
Sulfate	87		25		mg/L			06/04/18 13:08	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	46.05				ft			05/16/18 09:45	1
Depth to Water (ft from MP)	48.83				ft			05/16/18 09:45	1
Elevation of well (ft from MP)	580.33				ft			05/16/18 09:45	1
Field pH	7.06				SU			05/16/18 09:45	1
Field Temperature	76.5				Degrees F			05/16/18 09:45	1
Ground Water Elevation	531.50				ft			05/16/18 09:45	1
Specific Conductance	601				umhos/cm			05/16/18 09:45	1
Well bottom elevation	442.28				ft			05/16/18 09:45	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G30S
Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		05/18/18 08:00	05/22/18 03:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.0010		mg/L		05/18/18 08:00	05/19/18 00:09	1
Barium	0.043		0.0025		mg/L		05/18/18 08:00	05/19/18 00:09	1
Boron	5.7		1.0		mg/L		05/18/18 08:00	05/21/18 20:08	20
Calcium	55		0.20		mg/L		05/18/18 08:00	05/19/18 00:09	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:09	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:09	1
Molybdenum	0.13		0.0050		mg/L		05/18/18 08:00	05/19/18 00:09	1
Selenium	<0.0025	F1	0.0025		mg/L		05/18/18 08:00	05/19/18 00:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			05/22/18 04:45	1
Chloride	210		10		mg/L			05/20/18 22:18	5
Fluoride	1.2		0.10		mg/L			05/26/18 15:45	1
Sulfate	540		100		mg/L			06/04/18 13:09	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-0.69				ft			05/17/18 09:13	1
Depth to Water (ft from MP)	1.62				ft			05/17/18 09:13	1
Elevation of well (ft from MP)	524.40				ft			05/17/18 09:13	1
Field pH	7.77				SU			05/17/18 09:13	1
Field Temperature	55.4				Degrees F			05/17/18 09:13	1
Ground Water Elevation	522.78				ft			05/17/18 09:13	1
Specific Conductance	1490				umhos/cm			05/17/18 09:13	1
Well bottom elevation	462.58				ft			05/17/18 09:13	1

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.021**		0.010		mg/L		05/18/18 08:00	05/22/18 04:06	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.011**		0.0010		mg/L		05/18/18 08:00	05/19/18 00:29	1
Barium	**0.041**		0.0025		mg/L		05/18/18 08:00	05/19/18 00:29	1
Boron	**5.7**		1.0		mg/L		05/18/18 08:00	05/21/18 20:34	20
Calcium	**53**		0.20		mg/L		05/18/18 08:00	05/19/18 00:29	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:29	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:29	1
Molybdenum	**0.14**		0.0050		mg/L		05/18/18 08:00	05/19/18 00:29	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/19/18 00:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			05/22/18 04:50	1
Chloride	**210**		10		mg/L			05/20/18 22:18	5
Fluoride	**1.3**		0.10		mg/L			05/26/18 15:48	1
Sulfate	**560**		100		mg/L			06/04/18 13:10	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**-0.69**				ft			05/17/18 09:13	1
Depth to Water (ft from MP)	**1.62**				ft			05/17/18 09:13	1
Elevation of well (ft from MP)	**524.40**				ft			05/17/18 09:13	1
Field pH	**7.77**				SU			05/17/18 09:13	1
Field Temperature	**55.4**				Degrees F			05/17/18 09:13	1
Ground Water Elevation	**522.78**				ft			05/17/18 09:13	1
Specific Conductance	**1490**				umhos/cm			05/17/18 09:13	1
Well bottom elevation	**462.58**				ft			05/17/18 09:13	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G44S

Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.016**		0.010		mg/L		05/18/18 08:00	05/22/18 04:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:32	1
Barium	**0.054**		0.0025		mg/L		05/18/18 08:00	05/19/18 00:32	1
Boron	**0.98**		0.25		mg/L		05/18/18 08:00	05/21/18 20:38	5
Calcium	**120**		0.20		mg/L		05/18/18 08:00	05/19/18 00:32	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:32	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:32	1
Molybdenum	**0.071**		0.0050		mg/L		05/18/18 08:00	05/19/18 00:32	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/19/18 00:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**780**		10		mg/L			05/22/18 04:53	1
Chloride	**35**		2.0		mg/L			05/20/18 21:17	1
Fluoride	**0.18**		0.10		mg/L			05/26/18 15:51	1
Sulfate	**96**		50		mg/L			06/05/18 09:16	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**77.99**				ft			05/17/18 12:34	1
Depth to Water (ft from MP)	**80.17**				ft			05/17/18 12:34	1
Elevation of well (ft from MP)	**586.69**				ft			05/17/18 12:34	1
Field pH	**7.02**				SU			05/17/18 12:34	1
Field Temperature	**59.2**				Degrees F			05/17/18 12:34	1
Ground Water Elevation	**506.52**				ft			05/17/18 12:34	1
Specific Conductance	**855**				umhos/cm			05/17/18 12:34	1
Well bottom elevation	**586.69**				ft			05/17/18 12:34	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: T03S
Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		05/18/18 08:00	05/22/18 04:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:36	1
Barium	0.087		0.0025		mg/L		05/18/18 08:00	05/19/18 00:36	1
Boron	1.8		0.25		mg/L		05/18/18 08:00	05/21/18 20:42	5
Calcium	100		0.20		mg/L		05/18/18 08:00	05/19/18 00:36	1
Cobalt	0.0013		0.0010		mg/L		05/18/18 08:00	05/19/18 00:36	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:36	1
Molybdenum	0.24		0.0050		mg/L		05/18/18 08:00	05/19/18 00:36	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/19/18 00:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			05/22/18 04:55	1
Chloride	82		10		mg/L			05/20/18 22:19	5
Fluoride	0.24		0.10		mg/L			05/26/18 15:54	1
Sulfate	210		50		mg/L			06/05/18 09:19	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	131.34				ft			05/17/18 13:55	1
Depth to Water (ft from MP)	134.42				ft			05/17/18 13:55	1
Elevation of well (ft from MP)	629.65				ft			05/17/18 13:55	1
Field pH	7.07				SU			05/17/18 13:55	1
Field Temperature	58.5				Degrees F			05/17/18 13:55	1
Ground Water Elevation	495.23				ft			05/17/18 13:55	1
Specific Conductance	1041				umhos/cm			05/17/18 13:55	1
Well bottom elevation	456.70				ft			05/17/18 13:55	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G48S
Date Collected: 05/18/18 08:45
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-6
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.023		0.010		mg/L		05/19/18 11:04	05/21/18 23:58	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		05/19/18 11:04	05/22/18 19:26	1
Barium	0.023		0.0025		mg/L		05/19/18 11:04	05/22/18 19:26	1
Boron	5.9		1.0		mg/L		05/19/18 11:04	05/23/18 11:38	20
Calcium	53		0.20		mg/L		05/19/18 11:04	05/22/18 19:26	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:26	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:26	1
Molybdenum	0.49		0.0050		mg/L		05/19/18 11:04	05/22/18 19:26	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			05/22/18 04:58	1
Chloride	100		10		mg/L			05/20/18 22:19	5
Fluoride	0.92		0.10		mg/L			05/26/18 16:06	1
Sulfate	370		100		mg/L			06/05/18 09:20	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.29				ft			05/18/18 08:45	1
Depth to Water (ft from MP)	100.74				ft			05/18/18 08:45	1
Elevation of well (ft from MP)	620.77				ft			05/18/18 08:45	1
Field pH	7.79				SU			05/18/18 08:45	1
Field Temperature	54.9				Degrees F			05/18/18 08:45	1
Ground Water Elevation	520.03				ft			05/18/18 08:45	1
Specific Conductance	1407				umhos/cm			05/18/18 08:45	1
Well bottom elevation	468.32				ft			05/18/18 08:45	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G47S

Date Collected: 05/18/18 10:07
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-7

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.015		0.010		mg/L		05/19/18 11:04	05/22/18 00:18	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.23		0.0010		mg/L		05/19/18 11:04	05/22/18 19:45	1
Barium	0.0087		0.0025		mg/L		05/19/18 11:04	05/22/18 19:45	1
Boron	3.7		1.0		mg/L		05/19/18 11:04	05/23/18 11:57	20
Calcium	1.1		0.20		mg/L		05/19/18 11:04	05/22/18 19:45	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:45	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:45	1
Molybdenum	1.5		0.0050		mg/L		05/19/18 11:04	05/22/18 19:45	1
Selenium	0.0039		0.0025		mg/L		05/19/18 11:04	05/22/18 19:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1800		10		mg/L			05/22/18 05:01	1
Chloride	160		10		mg/L			05/20/18 22:20	5
Fluoride	1.7		0.10		mg/L			05/26/18 16:15	1
Sulfate	570		250		mg/L			06/05/18 09:21	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	91.01				ft			05/18/18 10:07	1
Depth to Water (ft from MP)	93.51				ft			05/18/18 10:07	1
Elevation of well (ft from MP)	612.32				ft			05/18/18 10:07	1
Field pH	10.42				SU			05/18/18 10:07	1
Field Temperature	60.8				Degrees F			05/18/18 10:07	1
Ground Water Elevation	518.81				ft			05/18/18 10:07	1
Specific Conductance	2430				umhos/cm			05/18/18 10:07	1
Well bottom elevation	459.84				ft			05/18/18 10:07	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G46S
Date Collected: 05/18/18 12:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-8
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.073		0.010		mg/L		05/19/18 11:04	05/22/18 00:22	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0028		0.0010		mg/L		05/19/18 11:04	05/22/18 19:49	1
Barium	0.048		0.0025		mg/L		05/19/18 11:04	05/22/18 19:49	1
Boron	5.9		1.0		mg/L		05/19/18 11:04	05/23/18 12:01	20
Calcium	110		0.20		mg/L		05/19/18 11:04	05/22/18 19:49	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:49	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:49	1
Molybdenum	0.84		0.0050		mg/L		05/19/18 11:04	05/22/18 19:49	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			05/22/18 05:03	1
Chloride	120		10		mg/L			05/20/18 22:20	5
Fluoride	0.40		0.10		mg/L			05/26/18 16:27	1
Sulfate	260		100		mg/L			06/05/18 09:22	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	92.89				ft			05/18/18 12:20	1
Depth to Water (ft from MP)	95.59				ft			05/18/18 12:20	1
Elevation of well (ft from MP)	601.32				ft			05/18/18 12:20	1
Field pH	7.66				SU			05/18/18 12:20	1
Field Temperature	57.9				Degrees F			05/18/18 12:20	1
Ground Water Elevation	505.73				ft			05/18/18 12:20	1
Specific Conductance	1201				umhos/cm			05/18/18 12:20	1
Well bottom elevation	453.62				ft			05/18/18 12:20	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: R08S
Date Collected: 05/18/18 13:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-9
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.15		0.010		mg/L		05/19/18 11:04	05/22/18 00:26	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0010		mg/L		05/19/18 11:04	05/22/18 19:52	1
Barium	0.046		0.0025		mg/L		05/19/18 11:04	05/22/18 19:52	1
Boron	7.7		1.0		mg/L		05/19/18 11:04	05/23/18 12:05	20
Calcium	140		0.20		mg/L		05/19/18 11:04	05/22/18 19:52	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:52	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:52	1
Molybdenum	0.35		0.0050		mg/L		05/19/18 11:04	05/22/18 19:52	1
Selenium	0.017		0.0025		mg/L		05/19/18 11:04	05/22/18 19:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	920		10		mg/L			05/22/18 05:06	1
Chloride	82		10		mg/L			05/20/18 22:21	5
Fluoride	0.14		0.10		mg/L			05/26/18 16:30	1
Sulfate	320		100		mg/L			06/05/18 09:23	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	62.76				ft			05/18/18 13:20	1
Depth to Water (ft from MP)	65.31				ft			05/18/18 13:20	1
Elevation of well (ft from MP)	578.65				ft			05/18/18 13:20	1
Field pH	8.25				SU			05/18/18 13:20	1
Field Temperature	57.9				Degrees F			05/18/18 13:20	1
Ground Water Elevation	9613.34				ft			05/18/18 13:20	1
Specific Conductance	965				umhos/cm			05/18/18 13:20	1
Well bottom elevation	453.08				ft			05/18/18 13:20	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: R32S

Date Collected: 05/21/18 10:04
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.10		0.010		mg/L		05/22/18 15:09	05/23/18 15:40	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0010		mg/L		05/22/18 15:09	05/29/18 16:40	1
Barium	0.040		0.0025		mg/L		05/22/18 15:09	05/29/18 16:40	1
Boron	4.4		0.050		mg/L		05/22/18 15:09	05/29/18 16:40	1
Calcium	120		0.20		mg/L		05/22/18 15:09	05/29/18 16:40	1
Cobalt	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:40	1
Lead	<0.00050		0.00050		mg/L		05/22/18 15:09	05/29/18 16:40	1
Molybdenum	0.64		0.0050		mg/L		05/22/18 15:09	05/29/18 16:40	1
Selenium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			05/22/18 05:08	1
Chloride	77		10		mg/L			05/28/18 18:28	5
Fluoride	0.29		0.10		mg/L			05/26/18 16:33	1
Sulfate	310		100		mg/L			06/05/18 10:17	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	18.23				ft			05/21/18 10:04	1
Depth to Water (ft from MP)	20.26				ft			05/21/18 10:04	1
Elevation of well (ft from MP)	536.81				ft			05/21/18 10:04	1
Field pH	7.13				SU			05/21/18 10:04	1
Field Temperature	52.7				Degrees F			05/21/18 10:04	1
Ground Water Elevation	516.55				ft			05/21/18 10:04	1
Specific Conductance	962				umhos/cm			05/21/18 10:04	1
Well bottom elevation	457.84				ft			05/21/18 10:04	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G45S
Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.033		0.010		mg/L		05/22/18 15:09	05/23/18 15:44	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0072		0.0010		mg/L		05/22/18 15:09	05/29/18 16:45	1
Barium	0.047		0.0025		mg/L		05/22/18 15:09	05/29/18 16:45	1
Boron	0.76		0.050		mg/L		05/22/18 15:09	05/29/18 16:45	1
Calcium	110		0.20		mg/L		05/22/18 15:09	05/29/18 16:45	1
Cobalt	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:45	1
Lead	<0.00050		0.00050		mg/L		05/22/18 15:09	05/29/18 16:45	1
Molybdenum	0.013		0.0050		mg/L		05/22/18 15:09	05/29/18 16:45	1
Selenium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	970		10		mg/L			05/22/18 05:11	1
Chloride	150		10		mg/L			05/28/18 18:28	5
Fluoride	0.33		0.10		mg/L			05/26/18 16:36	1
Sulfate	230		50		mg/L			06/05/18 10:18	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	65.53				ft			05/21/18 11:15	1
Depth to Water (ft from MP)	68.50				ft			05/21/18 11:15	1
Elevation of well (ft from MP)	603.31				ft			05/21/18 11:15	1
Field pH	7.00				SU			05/21/18 11:15	1
Field Temperature	56.3				Degrees F			05/21/18 11:15	1
Ground Water Elevation	534.81				ft			05/21/18 11:15	1
Specific Conductance	1175				umhos/cm			05/21/18 11:15	1
Well bottom elevation	471.05				ft			05/21/18 11:15	1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 432708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total Recoverable	GW	3005A	
MB 500-432708/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-432708/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 432881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total Recoverable	GW	6010C	432708
MB 500-432708/1-A	Method Blank	Total Recoverable	Water	6010C	432708
LCS 500-432708/2-A	Lab Control Sample	Total Recoverable	Water	6010C	432708

Prep Batch: 432907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	3005A	
500-145553-3	DUP	Total Recoverable	Water	3005A	
500-145553-4	G44S	Total Recoverable	GW	3005A	
500-145553-5	T03S	Total Recoverable	GW	3005A	
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-145553-2 MS	G30S	Total Recoverable	GW	3005A	
500-145553-2 MSD	G30S	Total Recoverable	GW	3005A	
500-145553-2 DU	G30S	Total Recoverable	GW	3005A	

Analysis Batch: 432940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total Recoverable	GW	6020A	432708
MB 500-432708/1-A	Method Blank	Total Recoverable	Water	6020A	432708
LCS 500-432708/2-A	Lab Control Sample	Total Recoverable	Water	6020A	432708

Prep Batch: 433098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total Recoverable	GW	3005A	
500-145553-7	G47S	Total Recoverable	GW	3005A	
500-145553-8	G46S	Total Recoverable	GW	3005A	
500-145553-9	R08S	Total Recoverable	GW	3005A	
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-145553-6 MS	G48S	Total Recoverable	GW	3005A	
500-145553-6 MSD	G48S	Total Recoverable	GW	3005A	
500-145553-6 DU	G48S	Total Recoverable	GW	3005A	

Analysis Batch: 433252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	6020A	432907
500-145553-3	DUP	Total Recoverable	Water	6020A	432907
500-145553-4	G44S	Total Recoverable	GW	6020A	432907
500-145553-5	T03S	Total Recoverable	GW	6020A	432907
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	6020A	432907
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	6020A	432907
500-145553-2 MS	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 MSD	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 DU	G30S	Total Recoverable	GW	6020A	432907

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Analysis Batch: 433345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	6010C	432907
500-145553-3	DUP	Total Recoverable	Water	6010C	432907
500-145553-4	G44S	Total Recoverable	GW	6010C	432907
500-145553-5	T03S	Total Recoverable	GW	6010C	432907
500-145553-6	G48S	Total Recoverable	GW	6010C	433098
500-145553-7	G47S	Total Recoverable	GW	6010C	433098
500-145553-8	G46S	Total Recoverable	GW	6010C	433098
500-145553-9	R08S	Total Recoverable	GW	6010C	433098
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	6010C	432907
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	6010C	433098
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	6010C	432907
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	6010C	433098
500-145553-2 MS	G30S	Total Recoverable	GW	6010C	432907
500-145553-2 MSD	G30S	Total Recoverable	GW	6010C	432907
500-145553-6 MS	G48S	Total Recoverable	GW	6010C	433098
500-145553-6 MSD	G48S	Total Recoverable	GW	6010C	433098
500-145553-2 DU	G30S	Total Recoverable	GW	6010C	432907
500-145553-6 DU	G48S	Total Recoverable	GW	6010C	433098

Analysis Batch: 433393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	6020A	432907
500-145553-3	DUP	Total Recoverable	Water	6020A	432907
500-145553-4	G44S	Total Recoverable	GW	6020A	432907
500-145553-5	T03S	Total Recoverable	GW	6020A	432907
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	6020A	432907
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	6020A	432907
500-145553-2 MS	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 MSD	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 DU	G30S	Total Recoverable	GW	6020A	432907

Prep Batch: 433467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total Recoverable	Water	3005A	
500-145553-11	G45S	Total Recoverable	Water	3005A	
MB 500-433467/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-433467/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 433604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total Recoverable	GW	6020A	433098
500-145553-7	G47S	Total Recoverable	GW	6020A	433098
500-145553-8	G46S	Total Recoverable	GW	6020A	433098
500-145553-9	R08S	Total Recoverable	GW	6020A	433098
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	6020A	433098
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433098
500-145553-6 MS	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 MSD	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 DU	G48S	Total Recoverable	GW	6020A	433098

Analysis Batch: 433664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total Recoverable	GW	6020A	433098

Metals (Continued)

Analysis Batch: 433664 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-7	G47S	Total Recoverable	GW	6020A	433098
500-145553-8	G46S	Total Recoverable	GW	6020A	433098
500-145553-9	R08S	Total Recoverable	GW	6020A	433098
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	6020A	433098
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433098
500-145553-6 MS	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 MSD	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 DU	G48S	Total Recoverable	GW	6020A	433098

Analysis Batch: 433755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total Recoverable	Water	6010C	433467
500-145553-11	G45S	Total Recoverable	Water	6010C	433467
MB 500-433467/1-A	Method Blank	Total Recoverable	Water	6010C	433467
LCS 500-433467/2-A	Lab Control Sample	Total Recoverable	Water	6010C	433467

Analysis Batch: 434570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total Recoverable	Water	6020A	433467
500-145553-11	G45S	Total Recoverable	Water	6020A	433467
MB 500-433467/1-A	Method Blank	Total Recoverable	Water	6020A	433467
LCS 500-433467/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433467

General Chemistry

Analysis Batch: 432683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 2540C	
MB 500-432683/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-432683/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-145553-1 MS	G20S	Total/NA	GW	SM 2540C	
500-145553-1 DU	G20S	Total/NA	GW	SM 2540C	

Analysis Batch: 433163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 4500 Cl- E	
500-145553-2	G30S	Total/NA	GW	SM 4500 Cl- E	
500-145553-3	DUP	Total/NA	Water	SM 4500 Cl- E	
500-145553-4	G44S	Total/NA	GW	SM 4500 Cl- E	
500-145553-5	T03S	Total/NA	GW	SM 4500 Cl- E	
500-145553-6	G48S	Total/NA	GW	SM 4500 Cl- E	
500-145553-7	G47S	Total/NA	GW	SM 4500 Cl- E	
500-145553-8	G46S	Total/NA	GW	SM 4500 Cl- E	
500-145553-9	R08S	Total/NA	GW	SM 4500 Cl- E	
MB 500-433163/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-433163/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-145553-4 MS	G44S	Total/NA	GW	SM 4500 Cl- E	
500-145553-4 MSD	G44S	Total/NA	GW	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 433338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total/NA	GW	SM 2540C	
500-145553-3	DUP	Total/NA	Water	SM 2540C	
500-145553-4	G44S	Total/NA	GW	SM 2540C	
500-145553-5	T03S	Total/NA	GW	SM 2540C	
500-145553-6	G48S	Total/NA	GW	SM 2540C	
500-145553-7	G47S	Total/NA	GW	SM 2540C	
500-145553-8	G46S	Total/NA	GW	SM 2540C	
500-145553-9	R08S	Total/NA	GW	SM 2540C	
500-145553-10	R32S	Total/NA	Water	SM 2540C	
500-145553-11	G45S	Total/NA	Water	SM 2540C	
MB 500-433338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-433338/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-145553-2 DU	G30S	Total/NA	GW	SM 2540C	

Analysis Batch: 434275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 4500 F C	
500-145553-2	G30S	Total/NA	GW	SM 4500 F C	
500-145553-3	DUP	Total/NA	Water	SM 4500 F C	
500-145553-4	G44S	Total/NA	GW	SM 4500 F C	
500-145553-5	T03S	Total/NA	GW	SM 4500 F C	
500-145553-6	G48S	Total/NA	GW	SM 4500 F C	
500-145553-7	G47S	Total/NA	GW	SM 4500 F C	
500-145553-8	G46S	Total/NA	GW	SM 4500 F C	
500-145553-9	R08S	Total/NA	GW	SM 4500 F C	
500-145553-10	R32S	Total/NA	Water	SM 4500 F C	
500-145553-11	G45S	Total/NA	Water	SM 4500 F C	
MB 500-434275/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-434275/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-434275/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-434275/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-145553-6 MS	G48S	Total/NA	GW	SM 4500 F C	
500-145553-6 MSD	G48S	Total/NA	GW	SM 4500 F C	

Analysis Batch: 434299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	SM 4500 Cl- E	
500-145553-11	G45S	Total/NA	Water	SM 4500 Cl- E	
MB 500-434299/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-434299/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 435221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 4500 SO4 E	
500-145553-2	G30S	Total/NA	GW	SM 4500 SO4 E	
500-145553-3	DUP	Total/NA	Water	SM 4500 SO4 E	
MB 500-435221/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-435221/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 435373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-4	G44S	Total/NA	GW	SM 4500 SO4 E	
500-145553-5	T03S	Total/NA	GW	SM 4500 SO4 E	
500-145553-6	G48S	Total/NA	GW	SM 4500 SO4 E	
500-145553-7	G47S	Total/NA	GW	SM 4500 SO4 E	
500-145553-8	G46S	Total/NA	GW	SM 4500 SO4 E	
500-145553-9	R08S	Total/NA	GW	SM 4500 SO4 E	
MB 500-435373/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-435373/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-145553-4 MS	G44S	Total/NA	GW	SM 4500 SO4 E	
500-145553-4 MSD	G44S	Total/NA	GW	SM 4500 SO4 E	

Analysis Batch: 435378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	SM 4500 SO4 E	
500-145553-11	G45S	Total/NA	Water	SM 4500 SO4 E	
MB 500-435378/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-435378/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-145553-11 MS	G45S	Total/NA	Water	SM 4500 SO4 E	
500-145553-11 MSD	G45S	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 433645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	Field Sampling	
500-145553-2	G30S	Total/NA	GW	Field Sampling	
500-145553-3	DUP	Total/NA	Water	Field Sampling	
500-145553-4	G44S	Total/NA	GW	Field Sampling	
500-145553-5	T03S	Total/NA	GW	Field Sampling	
500-145553-6	G48S	Total/NA	GW	Field Sampling	
500-145553-7	G47S	Total/NA	GW	Field Sampling	
500-145553-8	G46S	Total/NA	GW	Field Sampling	
500-145553-9	R08S	Total/NA	GW	Field Sampling	
500-145553-10	R32S	Total/NA	Water	Field Sampling	
500-145553-11	G45S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-432708/1-A
Matrix: Water
Analysis Batch: 432881

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/17/18 07:32	05/18/18 01:46	1

Lab Sample ID: LCS 500-432708/2-A
Matrix: Water
Analysis Batch: 432881

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.110		mg/L		110	80 - 120

Lab Sample ID: MB 500-432907/1-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/18/18 08:00	05/22/18 03:25	1

Lab Sample ID: LCS 500-432907/2-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.530		mg/L		106	80 - 120

Lab Sample ID: 500-145553-2 MS
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.021		0.500	0.539		mg/L		103	75 - 125

Lab Sample ID: 500-145553-2 MSD
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.021		0.500	0.541		mg/L		104	75 - 125	0	20

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.021		0.0216		mg/L		2	20

Lab Sample ID: MB 500-433098/1-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/19/18 11:04	05/21/18 23:50	1

Lab Sample ID: LCS 500-433098/2-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			0.500	0.533		mg/L		107	80 - 120		

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	0.023		0.500	0.534		mg/L		102	75 - 125		

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.023		0.500	0.540		mg/L		103	75 - 125	1	20

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.023		0.0231		mg/L		2	20

Lab Sample ID: MB 500-433467/1-A
Matrix: Water
Analysis Batch: 433755

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/22/18 15:09	05/23/18 15:32	1

Lab Sample ID: LCS 500-433467/2-A
Matrix: Water
Analysis Batch: 433755

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			0.500	0.524		mg/L		105	80 - 120		

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-432708/1-A
Matrix: Water
Analysis Batch: 432940

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/17/18 07:32	05/18/18 00:41	1
Barium	<0.0025		0.0025		mg/L		05/17/18 07:32	05/18/18 00:41	1
Boron	<0.050		0.050		mg/L		05/17/18 07:32	05/18/18 00:41	1
Calcium	<0.20		0.20		mg/L		05/17/18 07:32	05/18/18 00:41	1
Cobalt	<0.0010		0.0010		mg/L		05/17/18 07:32	05/18/18 00:41	1
Lead	<0.00050	^	0.00050		mg/L		05/17/18 07:32	05/18/18 00:41	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/18 07:32	05/18/18 00:41	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-432708/1-A
Matrix: Water
Analysis Batch: 432940

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0025		0.0025		mg/L		05/17/18 07:32	05/18/18 00:41	1

Lab Sample ID: LCS 500-432708/2-A
Matrix: Water
Analysis Batch: 432940

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0945		mg/L		94	80 - 120
Barium	0.500	0.500		mg/L		100	80 - 120
Boron	1.00	0.979		mg/L		98	80 - 120
Calcium	10.0	11.5		mg/L		115	80 - 120
Cobalt	0.500	0.532		mg/L		106	80 - 120
Lead	0.100	0.111	^	mg/L		111	80 - 120
Molybdenum	1.00	0.964		mg/L		96	80 - 120
Selenium	0.100	0.0962		mg/L		96	80 - 120

Lab Sample ID: MB 500-432907/1-A
Matrix: Water
Analysis Batch: 433252

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/18/18 08:00	05/18/18 23:19	1
Barium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/18/18 23:19	1
Calcium	<0.20		0.20		mg/L		05/18/18 08:00	05/18/18 23:19	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/18/18 23:19	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/18/18 23:19	1
Molybdenum	<0.0050		0.0050		mg/L		05/18/18 08:00	05/18/18 23:19	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/18/18 23:19	1

Lab Sample ID: MB 500-432907/1-A
Matrix: Water
Analysis Batch: 433393

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/18/18 08:00	05/21/18 19:53	1

Lab Sample ID: LCS 500-432907/2-A
Matrix: Water
Analysis Batch: 433252

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0997		mg/L		100	80 - 120
Barium	2.00	2.02		mg/L		101	80 - 120
Calcium	10.0	9.81		mg/L		98	80 - 120
Cobalt	0.500	0.501		mg/L		100	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.955		mg/L		96	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-432907/2-A
Matrix: Water
Analysis Batch: 433393

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: 500-145553-2 MS
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.011		0.100	0.132		mg/L		121	75 - 125
Barium	0.043		2.00	2.37		mg/L		116	75 - 125
Calcium	55		10.0	70.5	4	mg/L		154	75 - 125
Cobalt	<0.0010		0.500	0.510		mg/L		102	75 - 125
Lead	<0.00050		0.100	0.111		mg/L		111	75 - 125
Molybdenum	0.13		1.00	1.25		mg/L		113	75 - 125
Selenium	<0.0025	F1	0.100	0.0875		mg/L		86	75 - 125

Lab Sample ID: 500-145553-2 MS
Matrix: GW
Analysis Batch: 433393

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.7		1.00	6.81	4	mg/L		109	75 - 125

Lab Sample ID: 500-145553-2 MSD
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.011		0.100	0.117		mg/L		106	75 - 125	12	20
Barium	0.043		2.00	2.09		mg/L		102	75 - 125	13	20
Calcium	55		10.0	63.8	4	mg/L		87	75 - 125	10	20
Cobalt	<0.0010		0.500	0.467		mg/L		93	75 - 125	9	20
Lead	<0.00050		0.100	0.100		mg/L		100	75 - 125	10	20
Molybdenum	0.13		1.00	1.12		mg/L		99	75 - 125	11	20
Selenium	<0.0025	F1	0.100	0.0745	F1	mg/L		73	75 - 125	16	20

Lab Sample ID: 500-145553-2 MSD
Matrix: GW
Analysis Batch: 433393

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.7		1.00	6.95	4	mg/L		123	75 - 125	2	20

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.011		0.0115		mg/L		1	20
Barium	0.043		0.0432		mg/L		0.7	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	55		55.4		mg/L		0.6	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.13		0.131		mg/L		3	20
Selenium	<0.0025	F1	<0.0025		mg/L		NC	20

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433393

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.7		5.77		mg/L		0.9	20

Lab Sample ID: MB 500-433098/1-A
Matrix: Water
Analysis Batch: 433604

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:19	1
Barium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:19	1
Calcium	<0.20		0.20		mg/L		05/19/18 11:04	05/22/18 19:19	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:19	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:19	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:04	05/22/18 19:19	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:19	1

Lab Sample ID: MB 500-433098/1-A
Matrix: Water
Analysis Batch: 433664

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/19/18 11:04	05/23/18 11:31	1

Lab Sample ID: LCS 500-433098/2-A
Matrix: Water
Analysis Batch: 433604

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	2.00	2.14		mg/L		107	80 - 120
Calcium	10.0	9.65		mg/L		97	80 - 120
Cobalt	0.500	0.524		mg/L		105	80 - 120
Lead	0.100	0.113		mg/L		113	80 - 120
Molybdenum	1.00	0.983		mg/L		98	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-433098/2-A
Matrix: Water
Analysis Batch: 433664

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.022		0.100	0.128		mg/L		106	75 - 125
Barium	0.023		2.00	2.10		mg/L		104	75 - 125
Calcium	53		10.0	62.4	4	mg/L		92	75 - 125
Cobalt	<0.0010		0.500	0.488		mg/L		98	75 - 125
Lead	<0.00050		0.100	0.105		mg/L		105	75 - 125
Molybdenum	0.49		1.00	1.49		mg/L		100	75 - 125
Selenium	<0.0025		0.100	0.0816		mg/L		82	75 - 125

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 433664

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.9		1.00	6.98	4	mg/L		106	75 - 125

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.022		0.100	0.127		mg/L		105	75 - 125	1	20
Barium	0.023		2.00	2.08		mg/L		103	75 - 125	1	20
Calcium	53		10.0	61.6	4	mg/L		84	75 - 125	1	20
Cobalt	<0.0010		0.500	0.485		mg/L		97	75 - 125	1	20
Lead	<0.00050		0.100	0.104		mg/L		104	75 - 125	1	20
Molybdenum	0.49		1.00	1.48		mg/L		99	75 - 125	1	20
Selenium	<0.0025		0.100	0.0824		mg/L		82	75 - 125	1	20

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 433664

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.9		1.00	6.55	4	mg/L		64	75 - 125	6	20

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.022		0.0227		mg/L		3	20
Barium	0.023		0.0231		mg/L		0.5	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	53		54.6		mg/L		3	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.49		0.501		mg/L		2	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433664

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.9		5.71		mg/L		4	20

Lab Sample ID: MB 500-433467/1-A
Matrix: Water
Analysis Batch: 434570

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:32	1
Barium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:32	1
Boron	<0.050		0.050		mg/L		05/22/18 15:09	05/29/18 16:32	1
Calcium	<0.20		0.20		mg/L		05/22/18 15:09	05/29/18 16:32	1
Cobalt	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:32	1
Lead	<0.00050		0.00050		mg/L		05/22/18 15:09	05/29/18 16:32	1
Molybdenum	<0.0050		0.0050		mg/L		05/22/18 15:09	05/29/18 16:32	1
Selenium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:32	1

Lab Sample ID: LCS 500-433467/2-A
Matrix: Water
Analysis Batch: 434570

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0959		mg/L		96	80 - 120
Barium	2.00	2.01		mg/L		101	80 - 120
Boron	1.00	0.944		mg/L		94	80 - 120
Calcium	10.0	9.35		mg/L		94	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Lead	0.100	0.106		mg/L		106	80 - 120
Molybdenum	1.00	0.947		mg/L		95	80 - 120
Selenium	0.100	0.0979		mg/L		98	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-432683/1
Matrix: Water
Analysis Batch: 432683

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/17/18 03:42	1

Lab Sample ID: LCS 500-432683/2
Matrix: Water
Analysis Batch: 432683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	298		mg/L		119	80 - 120

Lab Sample ID: 500-145553-1 MS
Matrix: GW
Analysis Batch: 432683

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	410		250	710		mg/L		118	75 - 125

Lab Sample ID: 500-145553-1 DU
Matrix: GW
Analysis Batch: 432683

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	410		434		mg/L		5	5

Lab Sample ID: MB 500-433338/1
Matrix: Water
Analysis Batch: 433338

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/22/18 04:12	1

Lab Sample ID: LCS 500-433338/2
Matrix: Water
Analysis Batch: 433338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	290		mg/L		116	80 - 120

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433338

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1130		mg/L		1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-433163/4
Matrix: Water
Analysis Batch: 433163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/20/18 21:12	1

Lab Sample ID: LCS 500-433163/5
Matrix: Water
Analysis Batch: 433163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.6		mg/L		101	85 - 115

Lab Sample ID: 500-145553-4 MS
Matrix: GW
Analysis Batch: 433163

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	35		50.0	78.4		mg/L		86	75 - 125

Lab Sample ID: 500-145553-4 MSD
Matrix: GW
Analysis Batch: 433163

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	35		50.0	78.0		mg/L		85	75 - 125	1	20

Lab Sample ID: MB 500-434299/12
Matrix: Water
Analysis Batch: 434299

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/28/18 17:42	1

Lab Sample ID: LCS 500-434299/13
Matrix: Water
Analysis Batch: 434299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.1		mg/L		100	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-434275/3
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/26/18 14:23	1

Lab Sample ID: MB 500-434275/31
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/26/18 16:00	1

Lab Sample ID: LCS 500-434275/32
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.5		mg/L		105	80 - 120

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-434275/4
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 434275

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.92		5.00	6.09		mg/L		103	75 - 125

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 434275

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.92		5.00	6.00		mg/L		102	75 - 125	1	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-435221/3
Matrix: Water
Analysis Batch: 435221

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/04/18 12:49	1

Lab Sample ID: LCS 500-435221/4
Matrix: Water
Analysis Batch: 435221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.6		mg/L		98	80 - 120

Lab Sample ID: MB 500-435373/3
Matrix: Water
Analysis Batch: 435373

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/05/18 09:04	1

Lab Sample ID: LCS 500-435373/4
Matrix: Water
Analysis Batch: 435373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.8		mg/L		104	80 - 120

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 500-145553-4 MS
Matrix: GW
Analysis Batch: 435373

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	96		400	473		mg/L		94	75 - 125

Lab Sample ID: 500-145553-4 MSD
Matrix: GW
Analysis Batch: 435373

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	96		400	450		mg/L		89	75 - 125	5	20

Lab Sample ID: MB 500-435378/3
Matrix: Water
Analysis Batch: 435378

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/05/18 10:15	1

Lab Sample ID: LCS 500-435378/4
Matrix: Water
Analysis Batch: 435378

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.5		mg/L		97	80 - 120

Lab Sample ID: 500-145553-11 MS
Matrix: Water
Analysis Batch: 435378

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	230		400	599		mg/L		93	75 - 125

Lab Sample ID: 500-145553-11 MSD
Matrix: Water
Analysis Batch: 435378

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	230		400	630		mg/L		101	75 - 125	5	20

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Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.4

Client	Client Project #
Midwest Generation EME LLC	
Project Name	
CCR Joliet #9 - 2Q18 GW	
Project Location/State	Lab Project #
Joliet, IL	
Sampler	Lab PM
Noe L., Rob P.	Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226/228	Parameter: Cl, Fl, SO4, TDS	Parameter: Total Metals	Comments
1		G20S	05/16/18	0945	4	W		1	1	1	

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TBL	05/16/18	1510	[signature]	TALHT	05/16/18	1570
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-6/7/2018

6/5/2018

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Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

500-145553 COC

Chain of Custody Record

Lab Job #: 500-145553
Chain of Custody Number:
Page _____ of _____
Temperature °C of Cooler: 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Nor L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
2		G30S	05/17/18	0913	5	W		1	1	1							
3		DUP	05/17/18	0913	5	W		1	1	1							DUP of G30S
4		G44S	05/17/18	1234	5	W		1	1	1							
5		T03S	05/17/18	1355	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
SL	TAL	05/17/18	1535		TA	05/17/18	1535

Lab Courier
Shipped
Hand Delivered ✓

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

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Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
6		G48S	05/18/18	0845	5	W		-	-	-							
7		G47S	05/18/18	1007	5	W		-	-	-							
8		G46S	05/18/18	1220	5	W		-	-	-							
9		R08S	05/18/18	1320	5	W		-	-	-							

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/18/18	1445	[signature]	TALHF	05/18/18	1445
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-145553 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 5.4

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
10		R32S	05/21/18	1004	5	W		1	1	1							
11		G45S	05/21/18	1115	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/21/18	1235	[signature]	TA-CHI	5/21/18	1235
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: DA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124 (0911)

6/5/2018

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-1

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging: Bladder Pump — Dedicated (Y/N)
Sampling: Bladder Pump — Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/16/18 Start Purge: 0925 (2400 Hr. Clock) End Purge: 0945

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 48.83 (ft.)
Ground Water Elev. 531.50 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.07	7.06	7.06	(std.)
SC	603	601	601	(umhos/cm)
Temp.	24.70	24.68	24.68	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 71°F, Sunny, NE winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 48.83 - 2.78 = 46.05 (ft.)
Levels were taken on 05/16/18 @ 0915

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/17/18 Start Purge: 0855 (2400 Hr. Clock) End Purge: 0913

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 1.62 (ft.)
Ground Water Elev. 522.78 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.75	7.77	7.77	(std.)
SC	1490	1490	1490	(umhos/cm)
Temp.	12.90	12.98	12.98	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 75°F, Sunny, NE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.62 - 2.31 = -0.69 (ft.)
Levels were taken on 05/17/18 @ 0845

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter	2.0 (inches)		1st	2nd	*Final*
Stick Up	2.31 (ft)	pH			(std.)
Ref. Measuring Pt.	TIC	SC			(umhos/cm)
Well Elevation	*524.40 (ft./msl)	Temp.			(°C)
Water Level	(ft.)	Well Stabilization / Recharge Grid			
Ground Water Elev.	(ft./msl)				
Well Bottom Elevation	*462.58 (ft./msl)				

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. = _____

Levels were taken on _____ @ _____.

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/17/18 Start Purge: 1220 (2400 Hr. Clock) End Purge: 1234

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.17 (ft.)
Ground Water Elev. 506.52 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.03	7.02	7.02	(std.)
SC	856	855	855	(umhos/cm)
Temp.	15.11	15.12	15.12	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 79°F, Sunny, NE winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.17 - 2.18 = 77.99 (ft.)
Levels were taken on 05/17/18 @ 1215.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145963-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/17/18 Start Purge: 1340 (2400 Hr. Clock) End Purge: 1355

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.65 (ft./msl)

Water Level 134.42 (ft.)

Ground Water Elev. 495.23 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.06	7.07	7.07	(std.)
SC	1035	1041	1041	(umhos/cm)
Temp.	14.69	14.72	14.72	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 79°F, Sunny, NE winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 134.42 - 3.08 = 131.34

Levels were taken on 05/17/18 @ 1330.

* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 0825 (2400 Hr. Clock) End Purge: 0845

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (Inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 100.74 (ft.)
Ground Water Elev. 520.03 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	7.78	7.79	7.79	(std.)
SC	1404	1407	1407	(umhos/cm)
Temp.	12.68	12.68	12.68	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 65°F, Fair, E winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 100.74 - 2.45 = 98.29 (ft.)
Levels were taken on 05/18/18 @ 0815.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 0950 (2400 Hr. Clock) End Purge: 1007

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.66

MEASUREMENTS

Well Diameter 4.0 (Inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 93.51 (ft.)
Ground Water Elev. 518.81 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	10.42	10.42	10.42	(std.)
SC	2,440	2,430	2,430	(umhos/cm)
Temp.	15.90	15.97	15.97	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 68°F, Sunny, NE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 93.51 - 2.50 = 91.01 (ft.)
Levels were taken on 05/18/18 @ 0945.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-8

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging: Bladder Pump — Dedicated (Y/N)
Sampling: Bladder Pump — Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 1200 (2400 Hr. Clock) End Purge: 1220

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.70 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.32 (ft./msl)
Water Level 95.59 (ft.)
Ground Water Elev. 505.73 (ft./msl)
Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.67	7.66	7.66	(std.)
SC	1200	1201	1201	(umhos/cm)
Temp.	14.48	14.44	14.44	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 73°F, Sunny, NE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 95.59 - 2.70 = 92.89 (ft.)
Levels were taken on 05/18/18 @ 1155

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145853-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 1305 (2400 Hr. Clock) End Purge: 1320

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 65.31 (ft.)
Ground Water Elev. 513.34 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.23	8.25	8.25	(std.)
SC	960	965	965	(umhos/cm)
Temp.	14.42	14.41	14.41	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 73°F, Fair, NE winds @ 10-15 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 65.31 - 2.55 = 62.76 (ft.)
Levels were taken on 05/18/18 @ 1255.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/21/18 Start Purge: 0945 (2400 Hr. Clock) End Purge: 1004

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.81 (ft./msl)
Water Level 20.26 (ft.)
Ground Water Elev. 516.55 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.12	7.13	7.13	(std.)
SC	957	962	962	(umhos/cm)
Temp.	11.39	11.46	11.46	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 60°F, Rain Shower, SE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 20.26 - 2.03 = 18.23 (ft)
Levels were taken on 05/21/18 @ 0930

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/21/18 Start Purge: 1100 (2400 Hr. Clock) End Purge: 1115

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.97

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 68.50 (ft.)
Ground Water Elev. 534.81 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.01	7.00	7.00	(std.)
SC	1164	1,175	1,175	(umhos/cm)
Temp.	13.48	13.48	13.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 63° F, Rain, E wind 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 68.50 - 2.97 = 65.53 (ft.)
Levels were taken on 05/21/18 @ 1050

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-1

Login Number: 145553
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4,2.6c, 3.8,5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G20S

Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432708	05/17/18 07:32	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	432881	05/18/18 01:55	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432708	05/17/18 07:32	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	432940	05/18/18 01:51	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	432683	05/17/18 04:15	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	433163	05/20/18 21:14	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	435221		CLB	TAL CHI
					(Start)	06/04/18 13:08		
					(End)	06/04/18 13:09		
Total/NA	Analysis	Field Sampling		1	433645	05/16/18 09:45	JVB	TAL CHI

Client Sample ID: G30S

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 03:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	433393	05/21/18 20:08	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:45	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435221		CLB	TAL CHI
					(Start)	06/04/18 13:09		
					(End)	06/04/18 13:10		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 09:13	JVB	TAL CHI

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 04:06	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:29	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	433393	05/21/18 20:34	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:48	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435221		CLB	TAL CHI
					(Start)	06/04/18 13:10		
					(End)	06/04/18 13:11		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 09:13	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 04:10	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:32	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		5	433393	05/21/18 20:38	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:53	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	433163	05/20/18 21:17	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:51	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435373		CLB	TAL CHI
					(Start)	06/05/18 09:16		
					(End)	06/05/18 09:17		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 12:34	JVB	TAL CHI

Client Sample ID: T03S

Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 04:14	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:36	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		5	433393	05/21/18 20:42	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:55	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:19	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:54	EAT	TAL CHI

Client Sample ID: T03S

Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		10	435373		CLB	TAL CHI
					(Start)	06/05/18 09:19		
					(End)	06/05/18 09:20		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 13:55	JVB	TAL CHI

Client Sample ID: G48S

Date Collected: 05/18/18 08:45
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-6

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/21/18 23:58	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 11:38	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:19	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435373		CLB	TAL CHI
					(Start)	06/05/18 09:20		
					(End)	06/05/18 09:21		
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 08:45	JVB	TAL CHI

Client Sample ID: G47S

Date Collected: 05/18/18 10:07
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-7

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 00:18	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:45	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 11:57	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:01	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	435373		CLB	TAL CHI
					(Start)	06/05/18 09:21		
					(End)	06/05/18 09:22		
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 10:07	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-145553-8

Date Collected: 05/18/18 12:20

Matrix: GW

Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 00:22	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 12:01	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:03	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:27	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435373	(Start) 06/05/18 09:22 (End) 06/05/18 09:23	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 12:20	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-145553-9

Date Collected: 05/18/18 13:20

Matrix: GW

Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 00:26	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 12:05	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435373	(Start) 06/05/18 09:23 (End) 06/05/18 09:24	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 13:20	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-145553-10

Date Collected: 05/21/18 10:04

Matrix: Water

Date Received: 05/21/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433755	05/23/18 15:40	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	434570	05/29/18 16:40	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:08	CLB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		5	434299	05/28/18 18:28	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:33	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435378		CLB	TAL CHI
					(Start)	06/05/18 10:17		
					(End)	06/05/18 10:18		
Total/NA	Analysis	Field Sampling		1	433645	05/21/18 10:04	JVB	TAL CHI

Client Sample ID: G45S

Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433755	05/23/18 15:44	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	434570	05/29/18 16:45	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:11	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434299	05/28/18 18:28	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435378		CLB	TAL CHI
					(Start)	06/05/18 10:18		
					(End)	06/05/18 10:19		
Total/NA	Analysis	Field Sampling		1	433645	05/21/18 11:15	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145553-2
Client Project/Site: Joliet #9 CCR - 2Q18 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
7/6/2018 2:06:15 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-145553-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-145553-2

Comments
No additional comments.

Receipt
The samples were received on 5/16/2018 3:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6º C, 3.4º C, 3.8º C and 5.4º C.

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-367072:
The following sample was prepared at a reduced aliquot: G47S (500-145553-7). Samples 240-95601-1, 240-95677-1, and 240-95679-1 had limited volume. Sample 500-145553-7 is dark yellow and has a strong sulfur smell.

Method(s) PrecSep-21: Radium Prep Batch 160-367066:
The following sample was prepared at a reduced aliquot: G47S (500-145553-7). Samples 240-95601-1, 240-95677-1, 240-95679-1, and 160-28440-1 had limited volume. Sample 500-145553-7 is dark yellow and has a strong sulfur smell. Samples 160-28441-1 and 160-28442-1 were yellow and had sediment.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145553-1	G20S	GW	05/16/18 09:45	05/16/18 15:10
500-145553-2	G30S	GW	05/17/18 09:13	05/17/18 15:35
500-145553-3	DUP	Water	05/17/18 09:13	05/17/18 15:35
500-145553-4	G44S	GW	05/17/18 12:34	05/17/18 15:35
500-145553-5	T03S	GW	05/17/18 13:55	05/17/18 15:35
500-145553-6	G48S	GW	05/18/18 08:45	05/18/18 14:45
500-145553-7	G47S	GW	05/18/18 10:07	05/18/18 14:45
500-145553-8	G46S	GW	05/18/18 12:20	05/18/18 14:45
500-145553-9	R08S	GW	05/18/18 13:20	05/18/18 14:45
500-145553-10	R32S	Water	05/21/18 10:04	05/21/18 12:35
500-145553-11	G45S	Water	05/21/18 11:15	05/21/18 12:35

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G20S
Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.21		0.179	0.210	1.00	0.0899	pCi/L	05/21/18 14:42	06/18/18 18:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/21/18 14:42*	*06/18/18 18:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.907		0.273	0.285	1.00	0.346	pCi/L	05/21/18 15:44	05/31/18 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*
Y Carrier	*92.7*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.12		0.326	0.354	5.00	0.346	pCi/L		06/23/18 19:42	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G30S

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.659		0.129	0.142	1.00	0.0754	pCi/L	05/21/18 14:42	06/18/18 18:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/21/18 14:42*	*06/18/18 18:26*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.909		0.268	0.280	1.00	0.346	pCi/L	05/21/18 15:44	05/31/18 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*
Y Carrier	*96.1*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.57		0.297	0.314	5.00	0.346	pCi/L		06/23/18 19:42	1

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.796		0.149	0.166	1.00	0.0898	pCi/L	05/21/18 14:42	06/18/18 19:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:07*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.736		0.254	0.263	1.00	0.340	pCi/L	05/21/18 15:44	05/31/18 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*
Y Carrier	*93.5*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.53		0.294	0.311	5.00	0.340	pCi/L		06/23/18 19:42	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G44S
Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.435**		0.114	0.120	1.00	0.0862	pCi/L	05/21/18 14:42	06/18/18 19:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:07*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.279	U	0.244	0.245	1.00	0.390	pCi/L	05/21/18 15:44	05/31/18 14:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*
Y Carrier	*92.0*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.714**		0.269	0.273	5.00	0.390	pCi/L		06/23/18 19:42	1

Client Sample ID: T03S

Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.879**		0.170	0.187	1.00	0.0983	pCi/L	05/21/18 14:42	06/18/18 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:08*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373	U	0.246	0.249	1.00	0.380	pCi/L	05/21/18 15:44	05/31/18 14:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*
Y Carrier	*91.6*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.25**		0.299	0.311	5.00	0.380	pCi/L		06/23/18 19:42	1

Client Sample ID: G48S

Date Collected: 05/18/18 08:45
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-6

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.547		0.121	0.131	1.00	0.0807	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.415		0.237	0.240	1.00	0.359	pCi/L	05/22/18 16:29	06/01/18 15:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*
Y Carrier	*92.0*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.962		0.266	0.273	5.00	0.359	pCi/L		06/23/18 19:42	1

Client Sample ID: G47S

Date Collected: 05/18/18 10:07
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-7

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.452		0.134	0.140	1.00	0.121	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.561		0.334	0.338	1.00	0.510	pCi/L	05/22/18 16:29	06/01/18 15:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*
Y Carrier	*87.1*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.360	0.366	5.00	0.510	pCi/L		06/23/18 19:42	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G46S
Date Collected: 05/18/18 12:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-8
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.478		0.114	0.122	1.00	0.0856	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.587		0.254	0.259	1.00	0.363	pCi/L	05/22/18 16:29	06/01/18 15:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*
Y Carrier	*87.1*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.07		0.278	0.286	5.00	0.363	pCi/L		06/23/18 19:42	1

Client Sample ID: R08S

Date Collected: 05/18/18 13:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-9

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.739		0.141	0.156	1.00	0.0882	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.479		0.226	0.230	1.00	0.326	pCi/L	05/22/18 16:29	06/01/18 15:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:24*	*1*
Y Carrier	*91.2*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.22		0.266	0.278	5.00	0.326	pCi/L		06/23/18 19:42	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: R32S
Date Collected: 05/21/18 10:04
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.42		0.324	0.348	1.00	0.216	pCi/L	05/29/18 10:36	06/20/18 05:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/29/18 10:36*	*06/20/18 05:52*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.795		0.309	0.317	1.00	0.440	pCi/L	05/29/18 11:26	06/19/18 16:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.22		0.448	0.471	5.00	0.440	pCi/L		06/23/18 19:42	1

Client Sample ID: G45S

Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.77		0.356	0.390	1.00	0.219	pCi/L	05/29/18 10:36	06/20/18 05:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/29/18 10:36*	*06/20/18 05:52*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.602		0.235	0.242	1.00	0.320	pCi/L	05/29/18 11:26	06/19/18 16:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*
Y Carrier	*93.1*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.37		0.427	0.459	5.00	0.320	pCi/L		06/23/18 19:42	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 366803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	PrecSep-21	
500-145553-2	G30S	Total/NA	GW	PrecSep-21	
500-145553-3	DUP	Total/NA	Water	PrecSep-21	
500-145553-4	G44S	Total/NA	GW	PrecSep-21	
500-145553-5	T03S	Total/NA	GW	PrecSep-21	
MB 160-366803/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-366803/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-145553-2 DU	G30S	Total/NA	GW	PrecSep-21	

Prep Batch: 366811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	PrecSep_0	
500-145553-2	G30S	Total/NA	GW	PrecSep_0	
500-145553-3	DUP	Total/NA	Water	PrecSep_0	
500-145553-4	G44S	Total/NA	GW	PrecSep_0	
500-145553-5	T03S	Total/NA	GW	PrecSep_0	
MB 160-366811/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-366811/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-145553-2 DU	G30S	Total/NA	GW	PrecSep_0	

Prep Batch: 367066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total/NA	GW	PrecSep-21	
500-145553-7	G47S	Total/NA	GW	PrecSep-21	
500-145553-8	G46S	Total/NA	GW	PrecSep-21	
500-145553-9	R08S	Total/NA	GW	PrecSep-21	
MB 160-367066/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-367066/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-145553-6 DU	G48S	Total/NA	GW	PrecSep-21	

Prep Batch: 367072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total/NA	GW	PrecSep_0	
500-145553-7	G47S	Total/NA	GW	PrecSep_0	
500-145553-8	G46S	Total/NA	GW	PrecSep_0	
500-145553-9	R08S	Total/NA	GW	PrecSep_0	
MB 160-367072/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-367072/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-145553-6 DU	G48S	Total/NA	GW	PrecSep_0	

Prep Batch: 367824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	PrecSep-21	
500-145553-11	G45S	Total/NA	Water	PrecSep-21	
MB 160-367824/21-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-367824/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-145553-11 DU	G45S	Total/NA	Water	PrecSep-21	

Prep Batch: 367837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 367837 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-11	G45S	Total/NA	Water	PrecSep_0	
MB 160-367837/21-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-367837/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-145553-11 DU	G45S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-366803/23-A
Matrix: Water
Analysis Batch: 370841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 366803

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03636	U	0.0475	0.0476	1.00	0.0792	pCi/L	05/21/18 14:42	06/18/18 19:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:08*	*1*

Lab Sample ID: LCS 160-366803/1-A
Matrix: Water
Analysis Batch: 371107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366803

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.8	10.86		1.10	1.00	0.0819	pCi/L	92	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 370841

Client Sample ID: G30S
Prep Type: Total/NA
Prep Batch: 366803

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.659			0.7123		0.155	1.00	0.0874	pCi/L			0.18	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*99.1*		*40 - 110*

Lab Sample ID: MB 160-367066/23-A
Matrix: Water
Analysis Batch: 371130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367066

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04352	U	0.0427	0.0429	1.00	0.0638	pCi/L	05/22/18 15:55	06/19/18 13:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.2*		*40 - 110*	*05/22/18 15:55*	*06/19/18 13:49*	*1*

Lab Sample ID: LCS 160-367066/1-A
Matrix: Water
Analysis Batch: 371130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367066

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.8	10.64		1.09	1.00	0.0820	pCi/L	90	68 - 137		

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-367066/1-A
Matrix: Water
Analysis Batch: 371130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367066

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.2		40 - 110

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 371132

Client Sample ID: G48S
Prep Type: Total/NA
Prep Batch: 367066

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.547			0.6919		0.152	1.00	0.0949	pCi/L			0.51	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	93.5		40 - 110

Lab Sample ID: MB 160-367824/21-A
Matrix: Water
Analysis Batch: 371317

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367824

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.006720	U	0.112	0.112	1.00	0.237	pCi/L	05/29/18 10:36	06/20/18 05:53	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110	05/29/18 10:36	06/20/18 05:53	1

Lab Sample ID: LCS 160-367824/1-A
Matrix: Water
Analysis Batch: 371315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367824

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.8	10.81		1.31	1.00	0.236	pCi/L	92	68 - 137		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	110		40 - 110

Lab Sample ID: 500-145553-11 DU
Matrix: Water
Analysis Batch: 371317

Client Sample ID: G45S
Prep Type: Total/NA
Prep Batch: 367824

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.77			1.506		0.368	1.00	0.259	pCi/L			0.34	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	101		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-366811/23-A
Matrix: Water
Analysis Batch: 368174

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 366811

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5847		0.239	0.245	1.00	0.335	pCi/L	05/21/18 15:44	05/31/18 14:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:47*	*1*
Y Carrier	*93.1*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:47*	*1*

Lab Sample ID: LCS 160-366811/1-A
Matrix: Water
Analysis Batch: 368163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366811

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.27	9.362		1.07	1.00	0.347	pCi/L	113	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*
Y Carrier	*96.1*		*40 - 110*

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 368163

Client Sample ID: G30S
Prep Type: Total/NA
Prep Batch: 366811

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.909			0.8519		0.275	1.00	0.342	pCi/L			0.10	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*99.1*		*40 - 110*
Y Carrier	*94.2*		*40 - 110*

Lab Sample ID: MB 160-367072/23-A
Matrix: Water
Analysis Batch: 368339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367072

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4396		0.253	0.257	1.00	0.385	pCi/L	05/22/18 16:29	06/01/18 15:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.2*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:20*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:20*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-367072/1-A
Matrix: Water
Analysis Batch: 368359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367072

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.26	9.930		1.13	1.00	0.342	pCi/L	120	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.2*		*40 - 110*
Y Carrier	*87.9*		*40 - 110*

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 368359

Client Sample ID: G48S
Prep Type: Total/NA
Prep Batch: 367072

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.415			0.5582		0.245	1.00	0.336	pCi/L			0.29	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*93.5*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

Lab Sample ID: MB 160-367837/21-A
Matrix: Water
Analysis Batch: 371107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367837

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.08757	U	0.220	0.220	1.00	0.406	pCi/L	05/29/18 11:26	06/19/18 16:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:08*	*1*
Y Carrier	*92.7*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:08*	*1*

Lab Sample ID: LCS 160-367837/1-A
Matrix: Water
Analysis Batch: 371132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367837

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.21	8.771		1.02	1.00	0.353	pCi/L	107	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*110*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 500-145553-11 DU
Matrix: Water
Analysis Batch: 371132

Client Sample ID: G45S
Prep Type: Total/NA
Prep Batch: 367837

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.602			0.5148		0.245	1.00	0.344	pCi/L			0.18	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*92.3*		*40 - 110*

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.4

Client	Client Project #	Preservative										
Midwest Generation EME LLC												
Project Name		Parameter	Radium 226/228	Cl, Fl, SO4, TDS	Total Metals							
CCR Joliet #9 - 2Q18 GW												
Project Location/State	Lab Project #											
Joliet, IL												
Sampler	Lab PM											
Noe L., Rob P.	Eric Lang											

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix									Comments
1		G20S	05/16/18	0945	4	W	1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DJ	TBL	05/16/18	1510	Chris Sanoj	TALHT	05/16/18	1570
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

500-145553 COC

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Nor L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
2		G30S	05/17/18	0913	5	W		1	1	1							
3		DUP	05/17/18	0913	5	W		1	1	1							DUP of G30S
4		G44S	05/17/18	1234	5	W		1	1	1							
5		T03S	05/17/18	1355	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
SL	TAL	05/17/18	1535		TA	05/17/18	1535
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered ✓

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (3/99)

7/6/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
6		G48S	05/18/18	0845	5	W		-	-	-							
7		G47S	05/18/18	1007	5	W		-	-	-							
8		G46S	05/18/18	1220	5	W		-	-	-							
9		R08S	05/18/18	1320	5	W		-	-	-							

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/18/18	1445	[signature]	TALHF	05/18/18	1445
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124 (0911)

7/6/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-145553 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 5.4

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
10		R32S	05/21/18	1004	5	W		1	1	1							
11		G45S	05/21/18	1115	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/21/18	1235	[signature]	TA-CHI	5/21/18	1235
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: DA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104596.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-2
Address: 13715 Rider Trail North,	Due Date Requested: 5/31/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-145553-1)	5/16/18	09:45 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	05/16/18 1630	TA	[signature]	05-17-18 0930	TASTL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104664.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/29/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G48S (500-145553-6)	5/18/18	08:45 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-145553-7)	5/18/18	10:07 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G46S (500-145553-8)	5/18/18	12:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-145553-9)	5/18/18	13:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	05/18/18 1630	TA		05-19-18 1010	TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104664.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/29/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G30S (500-145553-2)	5/17/18	09:13 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-145553-3)	5/17/18	09:13 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-145553-4)	5/17/18	12:34 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-145553-5)	5/17/18	13:55 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	05/18/18 1630	TA	[signature]	05-19-18 1010	TA STL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104743.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/29/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
R32S (500-145553-10)	5/21/18	10:04 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-145553-11)	5/21/18	11:15 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	5/21/18 1315	TA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4,2.6c, 3.8,5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 2
Creator: Press, Nicholas B

List Source: TestAmerica St. Louis
List Creation: 05/18/18 09:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 3
Creator: Press, Nicholas B

List Source: TestAmerica St. Louis
List Creation: 05/19/18 12:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 4
Creator: Press, Nicholas B

List Source: TestAmerica St. Louis
List Creation: 05/22/18 11:23 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G20S
Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370840	06/18/18 18:25	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G30S
Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370840	06/18/18 18:26	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: DUP
Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370841	06/18/18 19:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G44S
Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370841	06/18/18 19:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:52	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: T03S — Lab Sample ID: 500-145553-5

Date Collected: 05/17/18 13:55 — **Matrix: GW**
Date Received: 05/17/18 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370841	06/18/18 19:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:52	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G48S — Lab Sample ID: 500-145553-6

Date Collected: 05/18/18 08:45 — **Matrix: GW**
Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G47S — Lab Sample ID: 500-145553-7

Date Collected: 05/18/18 10:07 — **Matrix: GW**
Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G46S — Lab Sample ID: 500-145553-8

Date Collected: 05/18/18 12:20 — **Matrix: GW**
Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: R08S
Date Collected: 05/18/18 13:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-9
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:24	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: R32S
Date Collected: 05/21/18 10:04
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367824	05/29/18 10:36	TJT	TAL SL
Total/NA	Analysis	903.0		1	371317	06/20/18 05:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367837	05/29/18 11:26	TJT	TAL SL
Total/NA	Analysis	904.0		1	371132	06/19/18 16:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G45S
Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367824	05/29/18 10:36	TJT	TAL SL
Total/NA	Analysis	903.0		1	371317	06/20/18 05:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367837	05/29/18 11:26	TJT	TAL SL
Total/NA	Analysis	904.0		1	371132	06/19/18 16:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)						
500-145553-1	G20S	94.7						
500-145553-2	G30S	100						
500-145553-2 DU	G30S	99.1						
500-145553-4	G44S	92.3						
500-145553-5	T03S	93.5						
500-145553-6	G48S	95.0						
500-145553-6 DU	G48S	93.5						
500-145553-7	G47S	96.2						
500-145553-8	G46S	97.6						
500-145553-9	R08S	97.3						

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)						
500-145553-3	DUP	97.9						
500-145553-10	R32S	101						
500-145553-11	G45S	104						
500-145553-11 DU	G45S	101						
LCS 160-366803/1-A	Lab Control Sample	95.3						
LCS 160-367066/1-A	Lab Control Sample	96.2						
LCS 160-367824/1-A	Lab Control Sample	110						
MB 160-366803/23-A	Method Blank	101						
MB 160-367066/23-A	Method Blank	98.2						
MB 160-367824/21-A	Method Blank	103						

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)	Y Carrier (40-110)						
500-145553-1	G20S	94.7	92.7						
500-145553-2	G30S	100	96.1						
500-145553-2 DU	G30S	99.1	94.2						
500-145553-4	G44S	92.3	92.0						
500-145553-5	T03S	93.5	91.6						
500-145553-6	G48S	95.0	92.0						
500-145553-6 DU	G48S	93.5	89.7						
500-145553-7	G47S	96.2	87.1						
500-145553-8	G46S	97.6	87.1						
500-145553-9	R08S	97.3	91.2						

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Tracer/Carrier Legend

Ba Carrier = Ba Carrier
Y Carrier = Y Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)	Y Carrier (40-110)
500-145553-3	DUP	97.9	93.5
500-145553-10	R32S	101	89.3
500-145553-11	G45S	104	93.1
500-145553-11 DU	G45S	101	92.3
LCS 160-366811/1-A	Lab Control Sample	95.3	96.1
LCS 160-367072/1-A	Lab Control Sample	96.2	87.9
LCS 160-367837/1-A	Lab Control Sample	110	89.7
MB 160-366811/23-A	Method Blank	101	93.1
MB 160-367072/23-A	Method Blank	98.2	86.4
MB 160-367837/21-A	Method Blank	103	92.7

Tracer/Carrier Legend

Ba Carrier = Ba Carrier
Y Carrier = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-141794-1
Client Project/Site: Joliet #9 CCR - 1Q18 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
3/23/2018 8:57:12 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-141794-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-141794-1

Comments
No additional comments.

Receipt
The samples were received on 3/6/2018 3:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6º C and 2.9º C.

Metals
Method(s) 6020A: The initial low level continuing calibration verification (ICVL) associated with batch 500-422721 recovered above the upper control limit for Beryllium. The samples associated with this ICVL were non-detects for the affected analyte; therefore, the data have been reported.

Method(s) 6020A: The low level continuing calibration verification (CCVL) associated with batch 500-423268, at line 38, recovered above the upper control limit for Beryllium. The samples associated with this CCVL were non-detects for the affected analyte; therefore, the data have been reported.

Method(s) 200.8, 6020A: The internal standard Terbium (Tb) was used to report the elements Lead (Pb) and Thallium (Tl) for batch 423268. This was due to sample being spiked with ICP trace digestion spike which contains the element Bismuth (Bi).

Method(s) 245.1, 7470A: The continuing calibration verification (CCV) associated with batch 423378 recovered above the upper control limit for Hg. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: G45S (500-141794-11).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-141794-1	G20S	Water	03/06/18 09:10	03/06/18 15:55
500-141794-2	G20S Dup	Water	03/06/18 09:10	03/06/18 15:55
500-141794-3	G30S	Water	03/07/18 09:23	03/07/18 16:00
500-141794-4	R32S	Water	03/07/18 11:14	03/07/18 16:00
500-141794-5	T03S	Water	03/07/18 13:08	03/07/18 16:00
500-141794-6	G44S	Water	03/07/18 14:14	03/07/18 16:00
500-141794-7	G48S	Water	03/08/18 09:15	03/08/18 15:35
500-141794-8	G47S	Water	03/08/18 10:54	03/08/18 15:35
500-141794-9	G46S	Water	03/08/18 13:20	03/08/18 15:35
500-141794-10	R08S	Water	03/08/18 14:20	03/08/18 15:35
500-141794-11	G45S	Water	03/09/18 09:51	03/09/18 11:28

Client Sample ID: G20S

Date Collected: 03/06/18 09:10
Date Received: 03/06/18 15:55

Lab Sample ID: 500-141794-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.042**		0.010		mg/L		03/07/18 06:47	03/09/18 03:57	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/07/18 06:47	03/08/18 12:25	1
Arsenic	<0.0010		0.0010		mg/L		03/07/18 06:47	03/08/18 12:25	1
Barium	**0.049**		0.0025		mg/L		03/07/18 06:47	03/08/18 12:25	1
Beryllium	<0.0010	^	0.0010		mg/L		03/07/18 06:47	03/08/18 12:25	1
Boron	**1.4**		0.25		mg/L		03/07/18 06:47	03/08/18 14:23	5
Cadmium	<0.00050		0.00050		mg/L		03/07/18 06:47	03/08/18 12:25	1
Calcium	**63**		0.20		mg/L		03/07/18 06:47	03/08/18 12:25	1
Chromium	<0.0050		0.0050		mg/L		03/07/18 06:47	03/08/18 12:25	1
Cobalt	<0.0010		0.0010		mg/L		03/07/18 06:47	03/08/18 12:25	1
Lead	<0.00050		0.00050		mg/L		03/07/18 06:47	03/08/18 12:25	1
Molybdenum	**0.021**		0.0050		mg/L		03/07/18 06:47	03/08/18 12:25	1
Selenium	<0.0025		0.0025		mg/L		03/07/18 06:47	03/08/18 12:25	1
Thallium	<0.0020		0.0020		mg/L		03/07/18 06:47	03/08/18 12:25	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/07/18 11:35	03/08/18 08:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**460**		10		mg/L			03/09/18 16:11	1
Chloride	**12**		2.0		mg/L			03/09/18 23:58	1
Fluoride	**0.76**		0.10		mg/L			03/10/18 14:36	1
Sulfate	**88**		20		mg/L			03/21/18 07:06	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**632**				umhos/cm			03/06/18 09:10	1
Field Temperature	**49.6**				Degrees F			03/06/18 09:10	1
Ground Water Elevation	**533.68**				ft			03/06/18 09:10	1
Field pH	**7.32**				SU			03/06/18 09:10	1
Well bottom elevation	**442.28**				ft			03/06/18 09:10	1
Depth to water from land surface	**43.87**				ft			03/06/18 09:10	1
Depth to Water (ft from MP)	**46.65**				ft			03/06/18 09:10	1
Elevation of well (ft from MP)	**580.33**				ft			03/06/18 09:10	1

Client Sample ID: G20S Dup
Date Collected: 03/06/18 09:10
Date Received: 03/06/18 15:55

Lab Sample ID: 500-141794-2
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.043		0.010		mg/L		03/07/18 06:47	03/09/18 04:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/07/18 06:47	03/08/18 12:29	1
Arsenic	<0.0010		0.0010		mg/L		03/07/18 06:47	03/08/18 12:29	1
Barium	0.051		0.0025		mg/L		03/07/18 06:47	03/08/18 12:29	1
Beryllium	<0.0010	^	0.0010		mg/L		03/07/18 06:47	03/08/18 12:29	1
Boron	1.3		0.25		mg/L		03/07/18 06:47	03/08/18 14:26	5
Cadmium	<0.00050		0.00050		mg/L		03/07/18 06:47	03/08/18 12:29	1
Calcium	63		0.20		mg/L		03/07/18 06:47	03/08/18 12:29	1
Chromium	<0.0050		0.0050		mg/L		03/07/18 06:47	03/08/18 12:29	1
Cobalt	0.0026		0.0010		mg/L		03/07/18 06:47	03/08/18 12:29	1
Lead	<0.00050		0.00050		mg/L		03/07/18 06:47	03/08/18 12:29	1
Molybdenum	0.020		0.0050		mg/L		03/07/18 06:47	03/08/18 12:29	1
Selenium	<0.0025		0.0025		mg/L		03/07/18 06:47	03/08/18 12:29	1
Thallium	<0.0020		0.0020		mg/L		03/07/18 06:47	03/08/18 12:29	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/07/18 11:35	03/08/18 08:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	450		10		mg/L			03/09/18 16:15	1
Chloride	12		2.0		mg/L			03/09/18 23:58	1
Fluoride	0.76		0.10		mg/L			03/10/18 14:44	1
Sulfate	83		20		mg/L			03/21/18 07:07	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	632				umhos/cm			03/06/18 09:10	1
Field Temperature	49.6				Degrees F			03/06/18 09:10	1
Ground Water Elevation	533.68				ft			03/06/18 09:10	1
Field pH	7.32				SU			03/06/18 09:10	1
Well bottom elevation	442.28				ft			03/06/18 09:10	1
Depth to water from land surface	43.87				ft			03/06/18 09:10	1
Depth to Water (ft from MP)	46.65				ft			03/06/18 09:10	1
Elevation of well (ft from MP)	580.33				ft			03/06/18 09:10	1

Client Sample ID: G30S
Date Collected: 03/07/18 09:23
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-3
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.019**		0.010		mg/L		03/09/18 07:03	03/10/18 02:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/09/18 07:03	03/09/18 20:38	1
Arsenic	**0.011**		0.0010		mg/L		03/09/18 07:03	03/09/18 20:38	1
Barium	**0.043**		0.0025		mg/L		03/09/18 07:03	03/09/18 20:38	1
Beryllium	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:38	1
Boron	**5.1**		1.0		mg/L		03/09/18 07:03	03/12/18 11:54	20
Cadmium	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:38	1
Calcium	**56**		0.20		mg/L		03/09/18 07:03	03/09/18 20:38	1
Chromium	<0.0050		0.0050		mg/L		03/09/18 07:03	03/09/18 20:38	1
Cobalt	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:38	1
Lead	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:38	1
Molybdenum	**0.14**		0.0050		mg/L		03/09/18 07:03	03/09/18 20:38	1
Selenium	<0.0025		0.0025		mg/L		03/09/18 07:03	03/12/18 17:25	1
Thallium	<0.0020		0.0020		mg/L		03/09/18 07:03	03/09/18 20:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/09/18 12:10	03/12/18 10:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			03/14/18 06:40	1
Chloride	**200**		10		mg/L			03/10/18 00:20	5
Fluoride	**1.3**		0.10		mg/L			03/10/18 14:48	1
Sulfate	**470**		100		mg/L			03/21/18 07:08	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**1550**				umhos/cm			03/07/18 09:23	1
Field Temperature	**43.9**				Degrees F			03/07/18 09:23	1
Ground Water Elevation	**522.92**				ft			03/07/18 09:23	1
Field pH	**7.97**				SU			03/07/18 09:23	1
Well bottom elevation	**462.58**				ft			03/07/18 09:23	1
Depth to water from land surface	**-0.83**				ft			03/07/18 09:23	1
Depth to Water (ft from MP)	**1.48**				ft			03/07/18 09:23	1
Elevation of well (ft from MP)	**524.40**				ft			03/07/18 09:23	1

Client Sample ID: R32S

Date Collected: 03/07/18 11:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.11**		0.010		mg/L		03/08/18 06:51	03/14/18 05:28	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/08/18 06:51	03/08/18 21:30	1
Arsenic	**0.0029**		0.0010		mg/L		03/08/18 06:51	03/09/18 11:48	1
Barium	**0.042**		0.0025		mg/L		03/08/18 06:51	03/08/18 21:30	1
Beryllium	<0.0010		0.0010		mg/L		03/08/18 06:51	03/09/18 11:48	1
Boron	**5.8**		1.0		mg/L		03/08/18 06:51	03/12/18 12:36	20
Cadmium	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:30	1
Calcium	**130**		0.20		mg/L		03/08/18 06:51	03/08/18 21:30	1
Chromium	<0.0050		0.0050		mg/L		03/08/18 06:51	03/08/18 21:30	1
Cobalt	<0.0010		0.0010		mg/L		03/08/18 06:51	03/08/18 21:30	1
Lead	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:30	1
Molybdenum	**0.67**		0.0050		mg/L		03/08/18 06:51	03/08/18 21:30	1
Selenium	<0.0025		0.0025		mg/L		03/08/18 06:51	03/09/18 11:48	1
Thallium	<0.0020		0.0020		mg/L		03/08/18 06:51	03/08/18 21:30	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/08/18 11:55	03/09/18 09:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**880**		10		mg/L			03/14/18 06:45	1
Chloride	**86**		10		mg/L			03/10/18 00:21	5
Fluoride	**0.32**		0.10		mg/L			03/10/18 14:50	1
Sulfate	**350**		100		mg/L			03/21/18 07:09	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**1019**				umhos/cm			03/07/18 11:14	1
Field Temperature	**50.5**				Degrees F			03/07/18 11:14	1
Ground Water Elevation	**519.83**				ft			03/07/18 11:14	1
Field pH	**7.57**				SU			03/07/18 11:14	1
Well bottom elevation	**457.84**				ft			03/07/18 11:14	1
Depth to water from land surface	**14.95**				ft			03/07/18 11:14	1
Depth to Water (ft from MP)	**16.98**				ft			03/07/18 11:14	1
Elevation of well (ft from MP)	**536.81**				ft			03/07/18 11:14	1

Client Sample ID: T03S
Date Collected: 03/07/18 13:08
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-5
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.022		0.010		mg/L		03/08/18 06:51	03/14/18 05:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/08/18 06:51	03/08/18 21:33	1
Arsenic	0.0023		0.0010		mg/L		03/08/18 06:51	03/09/18 11:52	1
Barium	0.093		0.0025		mg/L		03/08/18 06:51	03/08/18 21:33	1
Beryllium	<0.0010		0.0010		mg/L		03/08/18 06:51	03/09/18 11:52	1
Boron	1.5		0.25		mg/L		03/08/18 06:51	03/12/18 12:39	5
Cadmium	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:33	1
Calcium	110		0.20		mg/L		03/08/18 06:51	03/08/18 21:33	1
Chromium	<0.0050		0.0050		mg/L		03/08/18 06:51	03/08/18 21:33	1
Cobalt	0.0013		0.0010		mg/L		03/08/18 06:51	03/08/18 21:33	1
Lead	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:33	1
Molybdenum	0.26		0.0050		mg/L		03/08/18 06:51	03/08/18 21:33	1
Selenium	<0.0025		0.0025		mg/L		03/08/18 06:51	03/09/18 11:52	1
Thallium	<0.0020		0.0020		mg/L		03/08/18 06:51	03/08/18 21:33	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/08/18 11:55	03/09/18 09:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	900		10		mg/L			03/14/18 06:48	1
Chloride	110		10		mg/L			03/10/18 00:21	5
Fluoride	0.23		0.10		mg/L			03/10/18 14:53	1
Sulfate	250		100		mg/L			03/21/18 07:10	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1176				umhos/cm			03/07/18 13:08	1
Field Temperature	49.6				Degrees F			03/07/18 13:08	1
Ground Water Elevation	498.60				ft			03/07/18 13:08	1
Field pH	7.34				SU			03/07/18 13:08	1
Well bottom elevation	456.70				ft			03/07/18 13:08	1
Depth to water from land surface	127.97				ft			03/07/18 13:08	1
Depth to Water (ft from MP)	131.05				ft			03/07/18 13:08	1
Elevation of well (ft from MP)	629.65				ft			03/07/18 13:08	1

Client Sample ID: G44S
Date Collected: 03/07/18 14:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-6
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.017		0.010		mg/L		03/08/18 06:51	03/14/18 05:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/08/18 06:51	03/08/18 21:37	1
Arsenic	0.0014		0.0010		mg/L		03/08/18 06:51	03/09/18 11:56	1
Barium	0.053		0.0025		mg/L		03/08/18 06:51	03/08/18 21:37	1
Beryllium	<0.0010		0.0010		mg/L		03/08/18 06:51	03/09/18 11:56	1
Boron	0.91		0.25		mg/L		03/08/18 06:51	03/12/18 12:43	5
Cadmium	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:37	1
Calcium	120		0.20		mg/L		03/08/18 06:51	03/08/18 21:37	1
Chromium	<0.0050		0.0050		mg/L		03/08/18 06:51	03/08/18 21:37	1
Cobalt	<0.0010		0.0010		mg/L		03/08/18 06:51	03/08/18 21:37	1
Lead	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:37	1
Molybdenum	0.049		0.0050		mg/L		03/08/18 06:51	03/08/18 21:37	1
Selenium	<0.0025		0.0025		mg/L		03/08/18 06:51	03/09/18 11:56	1
Thallium	<0.0020		0.0020		mg/L		03/08/18 06:51	03/08/18 21:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/08/18 11:55	03/09/18 09:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	670		10		mg/L			03/14/18 06:50	1
Chloride	36		2.0		mg/L			03/10/18 00:00	1
Fluoride	0.18		0.10		mg/L			03/10/18 14:56	1
Sulfate	110		50		mg/L			03/21/18 07:11	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	884				umhos/cm			03/07/18 14:14	1
Field Temperature	50.0				Degrees F			03/07/18 14:14	1
Ground Water Elevation	507.95				ft			03/07/18 14:14	1
Field pH	7.19				SU			03/07/18 14:14	1
Well bottom elevation	455.11				ft			03/07/18 14:14	1
Depth to water from land surface	76.56				ft			03/07/18 14:14	1
Depth to Water (ft from MP)	78.74				ft			03/07/18 14:14	1
Elevation of well (ft from MP)	586.69				ft			03/07/18 14:14	1

Client Sample ID: G48S
Date Collected: 03/08/18 09:15
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.023**		0.010		mg/L		03/09/18 07:03	03/10/18 02:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/09/18 07:03	03/09/18 20:41	1
Arsenic	**0.017**		0.0010		mg/L		03/09/18 07:03	03/09/18 20:41	1
Barium	**0.031**		0.0025		mg/L		03/09/18 07:03	03/09/18 20:41	1
Beryllium	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:41	1
Boron	**5.3**		1.0		mg/L		03/09/18 07:03	03/12/18 11:58	20
Cadmium	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:41	1
Calcium	**62**		0.20		mg/L		03/09/18 07:03	03/09/18 20:41	1
Chromium	<0.0050		0.0050		mg/L		03/09/18 07:03	03/09/18 20:41	1
Cobalt	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:41	1
Lead	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:41	1
Molybdenum	**0.51**		0.0050		mg/L		03/09/18 07:03	03/09/18 20:41	1
Selenium	<0.0025		0.0025		mg/L		03/09/18 07:03	03/12/18 17:29	1
Thallium	<0.0020		0.0020		mg/L		03/09/18 07:03	03/09/18 20:41	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/09/18 12:10	03/12/18 10:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			03/15/18 05:17	1
Chloride	**100**		10		mg/L			03/10/18 00:22	5
Fluoride	**0.85**		0.10		mg/L			03/10/18 15:08	1
Sulfate	**450**		100		mg/L			03/21/18 07:12	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**1493**				umhos/cm			03/08/18 09:15	1
Field Temperature	**49.1**				Degrees F			03/08/18 09:15	1
Ground Water Elevation	**521.00**				ft			03/08/18 09:15	1
Field pH	**8.13**				SU			03/08/18 09:15	1
Well bottom elevation	**468.32**				ft			03/08/18 09:15	1
Depth to water from land surface	**97.32**				ft			03/08/18 09:15	1
Depth to Water (ft from MP)	**99.77**				ft			03/08/18 09:15	1
Elevation of well (ft from MP)	**620.77**				ft			03/08/18 09:15	1

Client Sample ID: G47S
Date Collected: 03/08/18 10:54
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.014		0.010		mg/L		03/09/18 07:03	03/10/18 02:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/09/18 07:03	03/09/18 20:45	1
Arsenic	0.25		0.0010		mg/L		03/09/18 07:03	03/09/18 20:45	1
Barium	0.0090		0.0025		mg/L		03/09/18 07:03	03/09/18 20:45	1
Beryllium	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:45	1
Boron	18		5.0		mg/L		03/09/18 07:03	03/12/18 12:02	100
Cadmium	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:45	1
Calcium	1.1		0.20		mg/L		03/09/18 07:03	03/09/18 20:45	1
Chromium	<0.0050		0.0050		mg/L		03/09/18 07:03	03/09/18 20:45	1
Cobalt	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:45	1
Lead	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:45	1
Molybdenum	1.4		0.0050		mg/L		03/09/18 07:03	03/09/18 20:45	1
Selenium	0.0042		0.0025		mg/L		03/09/18 07:03	03/12/18 17:32	1
Thallium	<0.0020		0.0020		mg/L		03/09/18 07:03	03/09/18 20:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/09/18 12:10	03/12/18 10:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1900		10		mg/L			03/15/18 05:22	1
Chloride	170		10		mg/L			03/10/18 00:23	5
Fluoride	2.1		0.10		mg/L			03/10/18 15:11	1
Sulfate	780		250		mg/L			03/21/18 07:13	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	2560				umhos/cm			03/08/18 10:54	1
Field Temperature	52.0				Degrees F			03/08/18 10:54	1
Ground Water Elevation	518.69				ft			03/08/18 10:54	1
Field pH	10.67				SU			03/08/18 10:54	1
Well bottom elevation	459.84				ft			03/08/18 10:54	1
Depth to water from land surface	91.13				ft			03/08/18 10:54	1
Depth to Water (ft from MP)	93.63				ft			03/08/18 10:54	1
Elevation of well (ft from MP)	612.32				ft			03/08/18 10:54	1

Client Sample ID: G46S

Date Collected: 03/08/18 13:20
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.093**		0.010		mg/L		03/09/18 07:03	03/10/18 02:43	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/09/18 07:03	03/09/18 20:49	1
Arsenic	**0.0039**		0.0010		mg/L		03/09/18 07:03	03/09/18 20:49	1
Barium	**0.049**		0.0025		mg/L		03/09/18 07:03	03/09/18 20:49	1
Beryllium	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:49	1
Boron	**5.9**		1.0		mg/L		03/09/18 07:03	03/12/18 12:05	20
Cadmium	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:49	1
Calcium	**110**		0.20		mg/L		03/09/18 07:03	03/09/18 20:49	1
Chromium	<0.0050		0.0050		mg/L		03/09/18 07:03	03/09/18 20:49	1
Cobalt	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:49	1
Lead	**0.00053**		0.00050		mg/L		03/09/18 07:03	03/09/18 20:49	1
Molybdenum	**0.82**		0.0050		mg/L		03/09/18 07:03	03/09/18 20:49	1
Selenium	<0.0025		0.0025		mg/L		03/09/18 07:03	03/12/18 17:36	1
Thallium	<0.0020		0.0020		mg/L		03/09/18 07:03	03/09/18 20:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/09/18 12:10	03/12/18 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**940**		10		mg/L			03/15/18 05:24	1
Chloride	**140**		10		mg/L			03/10/18 00:24	5
Fluoride	**0.41**		0.10		mg/L			03/10/18 15:13	1
Sulfate	**350**		100		mg/L			03/21/18 07:16	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**1263**				umhos/cm			03/08/18 13:20	1
Field Temperature	**52.9**				Degrees F			03/08/18 13:20	1
Ground Water Elevation	**504.52**				ft			03/08/18 13:20	1
Field pH	**7.75**				SU			03/08/18 13:20	1
Well bottom elevation	**453.62**				ft			03/08/18 13:20	1
Depth to water from land surface	**94.10**				ft			03/08/18 13:20	1
Depth to Water (ft from MP)	**96.80**				ft			03/08/18 13:20	1
Elevation of well (ft from MP)	**601.32**				ft			03/08/18 13:20	1

Client Sample ID: R08S
Date Collected: 03/08/18 14:20
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-10
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.15		0.010		mg/L		03/09/18 07:03	03/10/18 02:48	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/09/18 07:03	03/09/18 20:53	1
Arsenic	0.0016		0.0010		mg/L		03/09/18 07:03	03/09/18 20:53	1
Barium	0.050		0.0025		mg/L		03/09/18 07:03	03/09/18 20:53	1
Beryllium	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:53	1
Boron	7.4		1.0		mg/L		03/09/18 07:03	03/12/18 12:09	20
Cadmium	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:53	1
Calcium	150		0.20		mg/L		03/09/18 07:03	03/09/18 20:53	1
Chromium	<0.0050		0.0050		mg/L		03/09/18 07:03	03/09/18 20:53	1
Cobalt	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:53	1
Lead	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:53	1
Molybdenum	0.37		0.0050		mg/L		03/09/18 07:03	03/09/18 20:53	1
Selenium	0.012		0.0025		mg/L		03/09/18 07:03	03/12/18 17:40	1
Thallium	<0.0020		0.0020		mg/L		03/09/18 07:03	03/09/18 20:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/09/18 12:10	03/12/18 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	850		10		mg/L			03/15/18 05:27	1
Chloride	83		10		mg/L			03/10/18 00:24	5
Fluoride	0.14		0.10		mg/L			03/10/18 15:16	1
Sulfate	420		100		mg/L			03/21/18 07:17	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	1010				umhos/cm			03/08/18 14:20	1
Field Temperature	52.0				Degrees F			03/08/18 14:20	1
Ground Water Elevation	513.53				ft			03/08/18 14:20	1
Field pH	8.62				SU			03/08/18 14:20	1
Well bottom elevation	453.08				ft			03/08/18 14:20	1
Depth to water from land surface	62.57				ft			03/08/18 14:20	1
Depth to Water (ft from MP)	65.12				ft			03/08/18 14:20	1
Elevation of well (ft from MP)	578.65				ft			03/08/18 14:20	1

Client Sample ID: G45S
Date Collected: 03/09/18 09:51
Date Received: 03/09/18 11:28

Lab Sample ID: 500-141794-11
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.028**		0.010		mg/L		03/10/18 11:36	03/14/18 04:54	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/10/18 11:36	03/13/18 00:20	1
Arsenic	**0.0093**		0.0010		mg/L		03/10/18 11:36	03/13/18 00:20	1
Barium	**0.036**		0.0025		mg/L		03/10/18 11:36	03/13/18 00:20	1
Beryllium	<0.0010	^	0.0010		mg/L		03/10/18 11:36	03/13/18 00:20	1
Boron	**0.38**		0.050		mg/L		03/10/18 11:36	03/13/18 00:20	1
Cadmium	<0.00050		0.00050		mg/L		03/10/18 11:36	03/13/18 00:20	1
Calcium	**97**		0.20		mg/L		03/10/18 11:36	03/13/18 00:20	1
Chromium	<0.0050		0.0050		mg/L		03/10/18 11:36	03/13/18 00:20	1
Cobalt	<0.0010		0.0010		mg/L		03/10/18 11:36	03/13/18 00:20	1
Lead	<0.00050		0.00050		mg/L		03/10/18 11:36	03/13/18 00:20	1
Molybdenum	**0.0080**		0.0050		mg/L		03/10/18 11:36	03/13/18 00:20	1
Selenium	<0.0025		0.0025		mg/L		03/10/18 11:36	03/13/18 00:20	1
Thallium	<0.0020		0.0020		mg/L		03/10/18 11:36	03/13/18 00:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020		mg/L		03/12/18 12:30	03/13/18 09:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**710**		10		mg/L			03/15/18 05:30	1
Chloride	**110**		10		mg/L			03/10/18 00:25	5
Fluoride	**0.32**		0.10		mg/L			03/10/18 15:18	1
Sulfate	**180**		50		mg/L			03/21/18 07:18	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Specific Conductance	**967**				umhos/cm			03/09/18 09:51	1
Field Temperature	**54.5**				Degrees F			03/09/18 09:51	1
Ground Water Elevation	**541.49**				ft			03/09/18 09:51	1
Field pH	**7.18**				SU			03/09/18 09:51	1
Well bottom elevation	**471.05**				ft			03/09/18 09:51	1
Depth to water from land surface	**58.85**				ft			03/09/18 09:51	1
Depth to Water (ft from MP)	**61.82**				ft			03/09/18 09:51	1
Elevation of well (ft from MP)	**603.31**				ft			03/09/18 09:51	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 422468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total Recoverable	Water	3005A	
500-141794-2	G20S Dup	Total Recoverable	Water	3005A	
MB 500-422468/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-422468/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 500-422468/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Prep Batch: 422527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	7470A	
500-141794-2	G20S Dup	Total/NA	Water	7470A	
MB 500-422527/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-422527/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-141794-1 MS	G20S	Total/NA	Water	7470A	
500-141794-1 MSD	G20S	Total/NA	Water	7470A	
500-141794-1 DU	G20S	Total/NA	Water	7470A	

Prep Batch: 422626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-4	R32S	Total Recoverable	Water	3005A	
500-141794-5	T03S	Total Recoverable	Water	3005A	
500-141794-6	G44S	Total Recoverable	Water	3005A	
MB 500-422626/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-422626/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-141794-6 MS	G44S	Total Recoverable	Water	3005A	
500-141794-6 MSD	G44S	Total Recoverable	Water	3005A	
500-141794-6 DU	G44S	Total Recoverable	Water	3005A	

Analysis Batch: 422690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	7470A	422527
500-141794-2	G20S Dup	Total/NA	Water	7470A	422527
MB 500-422527/12-A	Method Blank	Total/NA	Water	7470A	422527
LCS 500-422527/13-A	Lab Control Sample	Total/NA	Water	7470A	422527
500-141794-1 MS	G20S	Total/NA	Water	7470A	422527
500-141794-1 MSD	G20S	Total/NA	Water	7470A	422527
500-141794-1 DU	G20S	Total/NA	Water	7470A	422527

Prep Batch: 422713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-4	R32S	Total/NA	Water	7470A	
500-141794-5	T03S	Total/NA	Water	7470A	
500-141794-6	G44S	Total/NA	Water	7470A	
MB 500-422713/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-422713/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-141794-5 MS	T03S	Total/NA	Water	7470A	
500-141794-5 MSD	T03S	Total/NA	Water	7470A	
500-141794-5 DU	T03S	Total/NA	Water	7470A	

Analysis Batch: 422721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total Recoverable	Water	6020A	422468

Metals (Continued)

Analysis Batch: 422721 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-2	G20S Dup	Total Recoverable	Water	6020A	422468
MB 500-422468/1-A	Method Blank	Total Recoverable	Water	6020A	422468
LCS 500-422468/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422468
LCSD 500-422468/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	422468

Prep Batch: 422800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-3	G30S	Total Recoverable	Water	3005A	
500-141794-7	G48S	Total Recoverable	Water	3005A	
500-141794-8	G47S	Total Recoverable	Water	3005A	
500-141794-9	G46S	Total Recoverable	Water	3005A	
500-141794-10	R08S	Total Recoverable	Water	3005A	
MB 500-422800/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-422800/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 422834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total Recoverable	Water	6010C	422468
500-141794-2	G20S Dup	Total Recoverable	Water	6010C	422468
MB 500-422468/1-A	Method Blank	Total Recoverable	Water	6010C	422468
LCS 500-422468/2-A	Lab Control Sample	Total Recoverable	Water	6010C	422468
LCSD 500-422468/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	422468

Analysis Batch: 422844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total Recoverable	Water	6020A	422468
500-141794-2	G20S Dup	Total Recoverable	Water	6020A	422468
500-141794-4	R32S	Total Recoverable	Water	6020A	422626
500-141794-5	T03S	Total Recoverable	Water	6020A	422626
500-141794-6	G44S	Total Recoverable	Water	6020A	422626
MB 500-422468/1-A	Method Blank	Total Recoverable	Water	6020A	422468
MB 500-422626/1-A	Method Blank	Total Recoverable	Water	6020A	422626
LCS 500-422468/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422468
LCS 500-422626/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422626
LCSD 500-422468/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	422468
500-141794-6 MS	G44S	Total Recoverable	Water	6020A	422626
500-141794-6 MSD	G44S	Total Recoverable	Water	6020A	422626
500-141794-6 DU	G44S	Total Recoverable	Water	6020A	422626

Analysis Batch: 422884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-4	R32S	Total/NA	Water	7470A	422713
500-141794-5	T03S	Total/NA	Water	7470A	422713
500-141794-6	G44S	Total/NA	Water	7470A	422713
MB 500-422713/12-A	Method Blank	Total/NA	Water	7470A	422713
LCS 500-422713/13-A	Lab Control Sample	Total/NA	Water	7470A	422713
500-141794-5 MS	T03S	Total/NA	Water	7470A	422713
500-141794-5 MSD	T03S	Total/NA	Water	7470A	422713
500-141794-5 DU	T03S	Total/NA	Water	7470A	422713

Metals (Continued)

Prep Batch: 422891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-3	G30S	Total/NA	Water	7470A	
500-141794-7	G48S	Total/NA	Water	7470A	
500-141794-8	G47S	Total/NA	Water	7470A	
500-141794-9	G46S	Total/NA	Water	7470A	
500-141794-10	R08S	Total/NA	Water	7470A	
MB 500-422891/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-422891/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-141794-10 MS	R08S	Total/NA	Water	7470A	
500-141794-10 MSD	R08S	Total/NA	Water	7470A	
500-141794-10 DU	R08S	Total/NA	Water	7470A	

Prep Batch: 422977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-11	G45S	Total Recoverable	Water	3005A	
MB 500-422977/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-422977/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 423069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-3	G30S	Total Recoverable	Water	6010C	422800
500-141794-7	G48S	Total Recoverable	Water	6010C	422800
500-141794-8	G47S	Total Recoverable	Water	6010C	422800
500-141794-9	G46S	Total Recoverable	Water	6010C	422800
500-141794-10	R08S	Total Recoverable	Water	6010C	422800
MB 500-422800/1-A	Method Blank	Total Recoverable	Water	6010C	422800
LCS 500-422800/2-A	Lab Control Sample	Total Recoverable	Water	6010C	422800

Analysis Batch: 423103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-3	G30S	Total Recoverable	Water	6020A	422800
500-141794-7	G48S	Total Recoverable	Water	6020A	422800
500-141794-8	G47S	Total Recoverable	Water	6020A	422800
500-141794-9	G46S	Total Recoverable	Water	6020A	422800
500-141794-10	R08S	Total Recoverable	Water	6020A	422800
MB 500-422800/1-A	Method Blank	Total Recoverable	Water	6020A	422800
LCS 500-422800/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422800

Analysis Batch: 423107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-4	R32S	Total Recoverable	Water	6020A	422626
500-141794-5	T03S	Total Recoverable	Water	6020A	422626
500-141794-6	G44S	Total Recoverable	Water	6020A	422626
MB 500-422626/1-A	Method Blank	Total Recoverable	Water	6020A	422626
LCS 500-422626/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422626
500-141794-6 MS	G44S	Total Recoverable	Water	6020A	422626
500-141794-6 MSD	G44S	Total Recoverable	Water	6020A	422626
500-141794-6 DU	G44S	Total Recoverable	Water	6020A	422626

Analysis Batch: 423140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-3	G30S	Total/NA	Water	7470A	422891

Metals (Continued)

Analysis Batch: 423140 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-7	G48S	Total/NA	Water	7470A	422891
500-141794-8	G47S	Total/NA	Water	7470A	422891
500-141794-9	G46S	Total/NA	Water	7470A	422891
500-141794-10	R08S	Total/NA	Water	7470A	422891
MB 500-422891/12-A	Method Blank	Total/NA	Water	7470A	422891
LCS 500-422891/13-A	Lab Control Sample	Total/NA	Water	7470A	422891
500-141794-10 MS	R08S	Total/NA	Water	7470A	422891
500-141794-10 MSD	R08S	Total/NA	Water	7470A	422891
500-141794-10 DU	R08S	Total/NA	Water	7470A	422891

Prep Batch: 423143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-11	G45S	Total/NA	Water	7470A	
MB 500-423143/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-423143/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 423196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-3	G30S	Total Recoverable	Water	6020A	422800
500-141794-3	G30S	Total Recoverable	Water	6020A	422800
500-141794-4	R32S	Total Recoverable	Water	6020A	422626
500-141794-5	T03S	Total Recoverable	Water	6020A	422626
500-141794-6	G44S	Total Recoverable	Water	6020A	422626
500-141794-7	G48S	Total Recoverable	Water	6020A	422800
500-141794-7	G48S	Total Recoverable	Water	6020A	422800
500-141794-8	G47S	Total Recoverable	Water	6020A	422800
500-141794-8	G47S	Total Recoverable	Water	6020A	422800
500-141794-9	G46S	Total Recoverable	Water	6020A	422800
500-141794-9	G46S	Total Recoverable	Water	6020A	422800
500-141794-10	R08S	Total Recoverable	Water	6020A	422800
500-141794-10	R08S	Total Recoverable	Water	6020A	422800
MB 500-422626/1-A	Method Blank	Total Recoverable	Water	6020A	422626
MB 500-422800/1-A	Method Blank	Total Recoverable	Water	6020A	422800
LCS 500-422626/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422626
LCS 500-422800/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422800
500-141794-6 MS	G44S	Total Recoverable	Water	6020A	422626
500-141794-6 MSD	G44S	Total Recoverable	Water	6020A	422626
500-141794-6 DU	G44S	Total Recoverable	Water	6020A	422626

Analysis Batch: 423268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-11	G45S	Total Recoverable	Water	6020A	422977
MB 500-422977/1-A	Method Blank	Total Recoverable	Water	6020A	422977
LCS 500-422977/2-A	Lab Control Sample	Total Recoverable	Water	6020A	422977

Analysis Batch: 423278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-11	G45S	Total/NA	Water	7470A	423143
MB 500-423143/12-A	Method Blank	Total/NA	Water	7470A	423143
LCS 500-423143/13-A	Lab Control Sample	Total/NA	Water	7470A	423143

Metals (Continued)

Analysis Batch: 423418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-4	R32S	Total Recoverable	Water	6010C	422626
500-141794-5	T03S	Total Recoverable	Water	6010C	422626
500-141794-6	G44S	Total Recoverable	Water	6010C	422626
500-141794-11	G45S	Total Recoverable	Water	6010C	422977
MB 500-422626/1-A	Method Blank	Total Recoverable	Water	6010C	422626
MB 500-422977/1-A	Method Blank	Total Recoverable	Water	6010C	422977
LCS 500-422626/2-A	Lab Control Sample	Total Recoverable	Water	6010C	422626
LCS 500-422977/2-A	Lab Control Sample	Total Recoverable	Water	6010C	422977
500-141794-6 MS	G44S	Total Recoverable	Water	6010C	422626
500-141794-6 MSD	G44S	Total Recoverable	Water	6010C	422626
500-141794-6 DU	G44S	Total Recoverable	Water	6010C	422626

General Chemistry

Analysis Batch: 422860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	SM 2540C	
500-141794-2	G20S Dup	Total/NA	Water	SM 2540C	
MB 500-422860/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-422860/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-141794-1 DU	G20S	Total/NA	Water	SM 2540C	

Analysis Batch: 422970

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	SM 4500 Cl- E	
500-141794-2	G20S Dup	Total/NA	Water	SM 4500 Cl- E	
500-141794-3	G30S	Total/NA	Water	SM 4500 Cl- E	
500-141794-4	R32S	Total/NA	Water	SM 4500 Cl- E	
500-141794-5	T03S	Total/NA	Water	SM 4500 Cl- E	
500-141794-6	G44S	Total/NA	Water	SM 4500 Cl- E	
500-141794-7	G48S	Total/NA	Water	SM 4500 Cl- E	
500-141794-8	G47S	Total/NA	Water	SM 4500 Cl- E	
500-141794-9	G46S	Total/NA	Water	SM 4500 Cl- E	
500-141794-10	R08S	Total/NA	Water	SM 4500 Cl- E	
500-141794-11	G45S	Total/NA	Water	SM 4500 Cl- E	
MB 500-422970/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-422970/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-141794-7 MS	G48S	Total/NA	Water	SM 4500 Cl- E	
500-141794-7 MSD	G48S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 423125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	SM 4500 F C	
500-141794-2	G20S Dup	Total/NA	Water	SM 4500 F C	
500-141794-3	G30S	Total/NA	Water	SM 4500 F C	
500-141794-4	R32S	Total/NA	Water	SM 4500 F C	
500-141794-5	T03S	Total/NA	Water	SM 4500 F C	
500-141794-6	G44S	Total/NA	Water	SM 4500 F C	
500-141794-7	G48S	Total/NA	Water	SM 4500 F C	
500-141794-8	G47S	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 423125 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-9	G46S	Total/NA	Water	SM 4500 F C	
500-141794-10	R08S	Total/NA	Water	SM 4500 F C	
500-141794-11	G45S	Total/NA	Water	SM 4500 F C	
MB 500-423125/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-423125/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-141794-1 MS	G20S	Total/NA	Water	SM 4500 F C	
500-141794-1 MSD	G20S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 423421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-3	G30S	Total/NA	Water	SM 2540C	
500-141794-4	R32S	Total/NA	Water	SM 2540C	
500-141794-5	T03S	Total/NA	Water	SM 2540C	
500-141794-6	G44S	Total/NA	Water	SM 2540C	
MB 500-423421/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-423421/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-141794-3 DU	G30S	Total/NA	Water	SM 2540C	

Analysis Batch: 423562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-7	G48S	Total/NA	Water	SM 2540C	
500-141794-8	G47S	Total/NA	Water	SM 2540C	
500-141794-9	G46S	Total/NA	Water	SM 2540C	
500-141794-10	R08S	Total/NA	Water	SM 2540C	
500-141794-11	G45S	Total/NA	Water	SM 2540C	
MB 500-423562/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-423562/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-141794-7 DU	G48S	Total/NA	Water	SM 2540C	

Analysis Batch: 424332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	SM 4500 SO4 E	
500-141794-2	G20S Dup	Total/NA	Water	SM 4500 SO4 E	
500-141794-3	G30S	Total/NA	Water	SM 4500 SO4 E	
500-141794-4	R32S	Total/NA	Water	SM 4500 SO4 E	
500-141794-5	T03S	Total/NA	Water	SM 4500 SO4 E	
500-141794-6	G44S	Total/NA	Water	SM 4500 SO4 E	
500-141794-7	G48S	Total/NA	Water	SM 4500 SO4 E	
500-141794-8	G47S	Total/NA	Water	SM 4500 SO4 E	
500-141794-9	G46S	Total/NA	Water	SM 4500 SO4 E	
500-141794-10	R08S	Total/NA	Water	SM 4500 SO4 E	
500-141794-11	G45S	Total/NA	Water	SM 4500 SO4 E	
MB 500-424332/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-424332/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-141794-11 MS	G45S	Total/NA	Water	SM 4500 SO4 E	
500-141794-11 MSD	G45S	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 423108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	Field Sampling	
500-141794-2	G20S Dup	Total/NA	Water	Field Sampling	
500-141794-3	G30S	Total/NA	Water	Field Sampling	
500-141794-4	R32S	Total/NA	Water	Field Sampling	
500-141794-5	T03S	Total/NA	Water	Field Sampling	
500-141794-6	G44S	Total/NA	Water	Field Sampling	
500-141794-7	G48S	Total/NA	Water	Field Sampling	
500-141794-8	G47S	Total/NA	Water	Field Sampling	
500-141794-9	G46S	Total/NA	Water	Field Sampling	
500-141794-10	R08S	Total/NA	Water	Field Sampling	
500-141794-11	G45S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-422468/1-A
Matrix: Water
Analysis Batch: 422834

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		03/07/18 06:47	03/09/18 03:45	1

Lab Sample ID: LCS 500-422468/2-A
Matrix: Water
Analysis Batch: 422834

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.528		mg/L		106	80 - 120

Lab Sample ID: LCSD 500-422468/3-A
Matrix: Water
Analysis Batch: 422834

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.500	0.509		mg/L		102	80 - 120	4	20

Lab Sample ID: MB 500-422626/1-A
Matrix: Water
Analysis Batch: 423418

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		03/08/18 06:51	03/14/18 05:00	1

Lab Sample ID: LCS 500-422626/2-A
Matrix: Water
Analysis Batch: 423418

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.508		mg/L		102	80 - 120

Lab Sample ID: 500-141794-6 MS
Matrix: Water
Analysis Batch: 423418

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.017		0.500	0.528		mg/L		102	75 - 125

Lab Sample ID: 500-141794-6 MSD
Matrix: Water
Analysis Batch: 423418

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.017		0.500	0.528		mg/L		102	75 - 125	0	20

Lab Sample ID: 500-141794-6 DU
Matrix: Water
Analysis Batch: 423418

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.017		0.0159		mg/L		4	20

Lab Sample ID: MB 500-422800/1-A
Matrix: Water
Analysis Batch: 423069

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		03/09/18 07:03	03/10/18 01:46	1

Lab Sample ID: LCS 500-422800/2-A
Matrix: Water
Analysis Batch: 423069

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.499		mg/L		100	80 - 120

Lab Sample ID: MB 500-422977/1-A
Matrix: Water
Analysis Batch: 423418

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		03/10/18 11:36	03/14/18 04:46	1

Lab Sample ID: LCS 500-422977/2-A
Matrix: Water
Analysis Batch: 423418

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422977

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.476		mg/L		95	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-422468/1-A
Matrix: Water
Analysis Batch: 422721

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/07/18 06:47	03/08/18 12:14	1
Arsenic	<0.0010		0.0010		mg/L		03/07/18 06:47	03/08/18 12:14	1
Barium	<0.0025		0.0025		mg/L		03/07/18 06:47	03/08/18 12:14	1
Beryllium	<0.0010	^	0.0010		mg/L		03/07/18 06:47	03/08/18 12:14	1
Cadmium	<0.00050		0.00050		mg/L		03/07/18 06:47	03/08/18 12:14	1
Calcium	<0.20		0.20		mg/L		03/07/18 06:47	03/08/18 12:14	1
Chromium	<0.0050		0.0050		mg/L		03/07/18 06:47	03/08/18 12:14	1
Cobalt	<0.0010		0.0010		mg/L		03/07/18 06:47	03/08/18 12:14	1
Lead	<0.00050		0.00050		mg/L		03/07/18 06:47	03/08/18 12:14	1
Molybdenum	<0.0050		0.0050		mg/L		03/07/18 06:47	03/08/18 12:14	1
Selenium	<0.0025		0.0025		mg/L		03/07/18 06:47	03/08/18 12:14	1
Thallium	<0.0020		0.0020		mg/L		03/07/18 06:47	03/08/18 12:14	1

Lab Sample ID: MB 500-422468/1-A
Matrix: Water
Analysis Batch: 422844

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		03/07/18 06:47	03/08/18 14:11	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-422468/2-A
Matrix: Water
Analysis Batch: 422721

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.495		mg/L		99	80 - 120
Arsenic	0.100	0.0970		mg/L		97	80 - 120
Barium	2.00	2.04		mg/L		102	80 - 120
Beryllium	0.0500	0.0499	^	mg/L		100	80 - 120
Cadmium	0.0500	0.0512		mg/L		102	80 - 120
Calcium	10.0	11.9		mg/L		119	80 - 120
Chromium	0.200	0.207		mg/L		104	80 - 120
Cobalt	0.500	0.526		mg/L		105	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Molybdenum	1.00	0.937		mg/L		94	80 - 120
Selenium	0.100	0.0975		mg/L		97	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: LCS 500-422468/2-A
Matrix: Water
Analysis Batch: 422844

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.998		mg/L		100	80 - 120

Lab Sample ID: LCSD 500-422468/3-A
Matrix: Water
Analysis Batch: 422721

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	0.500	0.481		mg/L		96	80 - 120	3	20
Arsenic	0.100	0.0945		mg/L		95	80 - 120	3	20
Barium	2.00	2.00		mg/L		100	80 - 120	2	20
Beryllium	0.0500	0.0506	^	mg/L		101	80 - 120	1	20
Cadmium	0.0500	0.0489		mg/L		98	80 - 120	5	20
Calcium	10.0	11.8		mg/L		118	80 - 120	1	20
Chromium	0.200	0.204		mg/L		102	80 - 120	2	20
Cobalt	0.500	0.515		mg/L		103	80 - 120	2	20
Lead	0.100	0.106		mg/L		106	80 - 120	2	20
Molybdenum	1.00	0.912		mg/L		91	80 - 120	3	20
Selenium	0.100	0.0948		mg/L		95	80 - 120	3	20
Thallium	0.100	0.103		mg/L		103	80 - 120	2	20

Lab Sample ID: LCSD 500-422468/3-A
Matrix: Water
Analysis Batch: 422844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 422468

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	0.970		mg/L		97	80 - 120	3	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-422626/1-A
Matrix: Water
Analysis Batch: 422844

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/08/18 06:51	03/08/18 21:22	1
Barium	<0.0025		0.0025		mg/L		03/08/18 06:51	03/08/18 21:22	1
Cadmium	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:22	1
Calcium	<0.20		0.20		mg/L		03/08/18 06:51	03/08/18 21:22	1
Chromium	<0.0050		0.0050		mg/L		03/08/18 06:51	03/08/18 21:22	1
Cobalt	<0.0010		0.0010		mg/L		03/08/18 06:51	03/08/18 21:22	1
Lead	<0.00050		0.00050		mg/L		03/08/18 06:51	03/08/18 21:22	1
Molybdenum	<0.0050		0.0050		mg/L		03/08/18 06:51	03/08/18 21:22	1
Thallium	<0.0020		0.0020		mg/L		03/08/18 06:51	03/08/18 21:22	1

Lab Sample ID: MB 500-422626/1-A
Matrix: Water
Analysis Batch: 423107

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		03/08/18 06:51	03/09/18 11:41	1
Beryllium	<0.0010		0.0010		mg/L		03/08/18 06:51	03/09/18 11:41	1
Selenium	<0.0025		0.0025		mg/L		03/08/18 06:51	03/09/18 11:41	1

Lab Sample ID: MB 500-422626/1-A
Matrix: Water
Analysis Batch: 423196

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		03/08/18 06:51	03/12/18 12:28	1

Lab Sample ID: LCS 500-422626/2-A
Matrix: Water
Analysis Batch: 422844

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.512		mg/L		102	80 - 120
Barium	2.00	2.06		mg/L		103	80 - 120
Cadmium	0.0500	0.0516		mg/L		103	80 - 120
Calcium	10.0	9.20		mg/L		92	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.500	0.514		mg/L		103	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Molybdenum	1.00	0.944		mg/L		94	80 - 120
Thallium	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: LCS 500-422626/2-A
Matrix: Water
Analysis Batch: 423107

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.100		mg/L		100	80 - 120
Beryllium	0.0500	0.0503		mg/L		101	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120

QC Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Lab Sample ID: LCS 500-422626/2-A
Matrix: Water
Analysis Batch: 423196

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron			1.00	1.02		mg/L		102	80 - 120		

Lab Sample ID: 500-141794-6 MS
Matrix: Water
Analysis Batch: 422844

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Antimony	<0.0030		0.500	0.530		mg/L		106	75 - 125		
Barium	0.053		2.00	2.12		mg/L		103	75 - 125		
Cadmium	<0.00050		0.0500	0.0528		mg/L		106	75 - 125		
Calcium	120		10.0	129	4	mg/L		102	75 - 125		
Chromium	<0.0050		0.200	0.198		mg/L		99	75 - 125		
Cobalt	<0.0010		0.500	0.494		mg/L		99	75 - 125		
Lead	<0.00050		0.100	0.108		mg/L		108	75 - 125		
Molybdenum	0.049		1.00	0.957		mg/L		91	75 - 125		
Thallium	<0.0020		0.100	0.107		mg/L		107	75 - 125		

Lab Sample ID: 500-141794-6 MS
Matrix: Water
Analysis Batch: 423107

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	0.0014		0.100	0.106		mg/L		105	75 - 125		
Beryllium	<0.0010		0.0500	0.0492		mg/L		98	75 - 125		
Selenium	<0.0025		0.100	0.106		mg/L		106	75 - 125		

Lab Sample ID: 500-141794-6 MS
Matrix: Water
Analysis Batch: 423196

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Boron	0.91		1.00	1.93		mg/L		102	75 - 125		

Lab Sample ID: 500-141794-6 MSD
Matrix: Water
Analysis Batch: 422844

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.524		mg/L		105	75 - 125	1	20
Barium	0.053		2.00	2.09		mg/L		102	75 - 125	1	20
Cadmium	<0.00050		0.0500	0.0521		mg/L		104	75 - 125	1	20
Calcium	120		10.0	126	4	mg/L		71	75 - 125	2	20
Chromium	<0.0050		0.200	0.196		mg/L		98	75 - 125	1	20
Cobalt	<0.0010		0.500	0.490		mg/L		98	75 - 125	1	20
Lead	<0.00050		0.100	0.107		mg/L		107	75 - 125	1	20
Molybdenum	0.049		1.00	0.941		mg/L		89	75 - 125	2	20
Thallium	<0.0020		0.100	0.105		mg/L		105	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-141794-6 MSD
Matrix: Water
Analysis Batch: 423107

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0014		0.100	0.105		mg/L		103	75 - 125	2	20
Beryllium	<0.0010		0.0500	0.0508		mg/L		102	75 - 125	3	20
Selenium	<0.0025		0.100	0.106		mg/L		106	75 - 125	1	20

Lab Sample ID: 500-141794-6 MSD
Matrix: Water
Analysis Batch: 423196

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.91		1.00	2.00		mg/L		109	75 - 125	4	20

Lab Sample ID: 500-141794-6 DU
Matrix: Water
Analysis Batch: 422844

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Barium	0.053		0.0525		mg/L		1	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	120		120		mg/L		0.4	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.049		0.0483		mg/L		0.7	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Lab Sample ID: 500-141794-6 DU
Matrix: Water
Analysis Batch: 423107

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0014		0.00162		mg/L		16	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-141794-6 DU
Matrix: Water
Analysis Batch: 423196

Client Sample ID: G44S
Prep Type: Total Recoverable
Prep Batch: 422626

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	0.91		0.937		mg/L		3	20

Lab Sample ID: MB 500-422800/1-A
Matrix: Water
Analysis Batch: 423103

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/09/18 07:03	03/09/18 20:19	1
Arsenic	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:19	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-422800/1-A
Matrix: Water
Analysis Batch: 423103

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		03/09/18 07:03	03/09/18 20:19	1
Beryllium	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:19	1
Cadmium	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:19	1
Calcium	<0.20		0.20		mg/L		03/09/18 07:03	03/09/18 20:19	1
Chromium	<0.0050		0.0050		mg/L		03/09/18 07:03	03/09/18 20:19	1
Cobalt	<0.0010		0.0010		mg/L		03/09/18 07:03	03/09/18 20:19	1
Lead	<0.00050		0.00050		mg/L		03/09/18 07:03	03/09/18 20:19	1
Molybdenum	<0.0050		0.0050		mg/L		03/09/18 07:03	03/09/18 20:19	1
Thallium	<0.0020		0.0020		mg/L		03/09/18 07:03	03/09/18 20:19	1

Lab Sample ID: MB 500-422800/1-A
Matrix: Water
Analysis Batch: 423196

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422800

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		03/09/18 07:03	03/12/18 11:35	1
Selenium	<0.0025		0.0025		mg/L		03/09/18 07:03	03/12/18 11:35	1

Lab Sample ID: LCS 500-422800/2-A
Matrix: Water
Analysis Batch: 423103

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.548		mg/L		110	80 - 120
Arsenic	0.100	0.106		mg/L		106	80 - 120
Barium	2.00	2.21		mg/L		110	80 - 120
Beryllium	0.0500	0.0502		mg/L		100	80 - 120
Cadmium	0.0500	0.0534		mg/L		107	80 - 120
Calcium	10.0	10.5		mg/L		105	80 - 120
Chromium	0.200	0.217		mg/L		109	80 - 120
Cobalt	0.500	0.536		mg/L		107	80 - 120
Lead	0.100	0.111		mg/L		111	80 - 120
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Thallium	0.100	0.110		mg/L		110	80 - 120

Lab Sample ID: LCS 500-422800/2-A
Matrix: Water
Analysis Batch: 423196

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.959		mg/L		96	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: MB 500-422977/1-A
Matrix: Water
Analysis Batch: 423268

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		03/10/18 11:36	03/12/18 23:23	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-422977/1-A
Matrix: Water
Analysis Batch: 423268

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 422977

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		03/10/18 11:36	03/12/18 23:23	1
Barium	<0.0025		0.0025		mg/L		03/10/18 11:36	03/12/18 23:23	1
Beryllium	<0.0010	^	0.0010		mg/L		03/10/18 11:36	03/12/18 23:23	1
Boron	<0.050		0.050		mg/L		03/10/18 11:36	03/12/18 23:23	1
Cadmium	<0.00050		0.00050		mg/L		03/10/18 11:36	03/12/18 23:23	1
Calcium	<0.20		0.20		mg/L		03/10/18 11:36	03/12/18 23:23	1
Chromium	<0.0050		0.0050		mg/L		03/10/18 11:36	03/12/18 23:23	1
Cobalt	<0.0010		0.0010		mg/L		03/10/18 11:36	03/12/18 23:23	1
Lead	<0.00050		0.00050		mg/L		03/10/18 11:36	03/12/18 23:23	1
Molybdenum	<0.0050		0.0050		mg/L		03/10/18 11:36	03/12/18 23:23	1
Selenium	<0.0025		0.0025		mg/L		03/10/18 11:36	03/12/18 23:23	1
Thallium	<0.0020		0.0020		mg/L		03/10/18 11:36	03/12/18 23:23	1

Lab Sample ID: LCS 500-422977/2-A
Matrix: Water
Analysis Batch: 423268

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 422977

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.514		mg/L		103	80 - 120
Arsenic	0.100	0.0984		mg/L		98	80 - 120
Barium	2.00	2.04		mg/L		102	80 - 120
Beryllium	0.0500	0.0480	^	mg/L		96	80 - 120
Boron	1.00	0.972		mg/L		97	80 - 120
Cadmium	0.0500	0.0528		mg/L		106	80 - 120
Calcium	10.0	9.64		mg/L		96	80 - 120
Chromium	0.200	0.198		mg/L		99	80 - 120
Cobalt	0.500	0.499		mg/L		100	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.923		mg/L		92	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-422527/12-A
Matrix: Water
Analysis Batch: 422690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422527

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/07/18 11:35	03/08/18 08:19	1

Lab Sample ID: LCS 500-422527/13-A
Matrix: Water
Analysis Batch: 422690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 422527

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00218		mg/L		109	80 - 120

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 500-141794-1 MS
Matrix: Water
Analysis Batch: 422690

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 422527

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.00102		mg/L		102	75 - 125

Lab Sample ID: 500-141794-1 MSD
Matrix: Water
Analysis Batch: 422690

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 422527

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.00102		mg/L		102	75 - 125	1	20

Lab Sample ID: 500-141794-1 DU
Matrix: Water
Analysis Batch: 422690

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 422527

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Lab Sample ID: MB 500-422713/12-A
Matrix: Water
Analysis Batch: 422884

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/08/18 11:55	03/09/18 08:48	1

Lab Sample ID: LCS 500-422713/13-A
Matrix: Water
Analysis Batch: 422884

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 422713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00214		mg/L		107	80 - 120

Lab Sample ID: 500-141794-5 MS
Matrix: Water
Analysis Batch: 422884

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 422713

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.000990		mg/L		99	75 - 125

Lab Sample ID: 500-141794-5 MSD
Matrix: Water
Analysis Batch: 422884

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 422713

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000950		mg/L		95	75 - 125	4	20

Lab Sample ID: 500-141794-5 DU
Matrix: Water
Analysis Batch: 422884

Client Sample ID: T03S
Prep Type: Total/NA
Prep Batch: 422713

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

Lab Sample ID: MB 500-422891/12-A
Matrix: Water
Analysis Batch: 423140

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 422891

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		03/09/18 12:10	03/12/18 10:42	1

Lab Sample ID: LCS 500-422891/13-A
Matrix: Water
Analysis Batch: 423140

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 422891

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00200	0.00212		mg/L		106	80 - 120		

Lab Sample ID: 500-141794-10 MS
Matrix: Water
Analysis Batch: 423140

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 422891

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury	<0.00020		0.00100	0.000930		mg/L		93	75 - 125		

Lab Sample ID: 500-141794-10 MSD
Matrix: Water
Analysis Batch: 423140

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 422891

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.000956		mg/L		96	75 - 125	3	20

Lab Sample ID: 500-141794-10 DU
Matrix: Water
Analysis Batch: 423140

Client Sample ID: R08S
Prep Type: Total/NA
Prep Batch: 422891

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Mercury	<0.00020			<0.00020		mg/L				NC	20

Lab Sample ID: MB 500-423143/12-A
Matrix: Water
Analysis Batch: 423278

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 423143

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020		mg/L		03/12/18 12:30	03/13/18 09:02	1

Lab Sample ID: LCS 500-423143/13-A
Matrix: Water
Analysis Batch: 423278

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 423143

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00200	0.00182	^	mg/L		91	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-422860/1
Matrix: Water
Analysis Batch: 422860

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			03/09/18 15:50	1

Lab Sample ID: LCS 500-422860/2
Matrix: Water
Analysis Batch: 422860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	276		mg/L		110	80 - 120

Lab Sample ID: 500-141794-1 DU
Matrix: Water
Analysis Batch: 422860

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	460		442		mg/L		5	5

Lab Sample ID: MB 500-423421/1
Matrix: Water
Analysis Batch: 423421

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			03/14/18 05:54	1

Lab Sample ID: LCS 500-423421/2
Matrix: Water
Analysis Batch: 423421

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	296		mg/L		118	80 - 120

Lab Sample ID: 500-141794-3 DU
Matrix: Water
Analysis Batch: 423421

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1100		mg/L		2	5

Lab Sample ID: MB 500-423562/1
Matrix: Water
Analysis Batch: 423562

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			03/15/18 05:12	1

Lab Sample ID: LCS 500-423562/2
Matrix: Water
Analysis Batch: 423562

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	278		mg/L		111	80 - 120

Lab Sample ID: 500-141794-7 DU
Matrix: Water
Analysis Batch: 423562

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1000			1080		mg/L				4	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-422970/4
Matrix: Water
Analysis Batch: 422970

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			03/09/18 23:56	1

Lab Sample ID: LCS 500-422970/5
Matrix: Water
Analysis Batch: 422970

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	48.8		mg/L		98	85 - 115		

Lab Sample ID: 500-141794-7 MS
Matrix: Water
Analysis Batch: 422970

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	100		50.0	141		mg/L		83	75 - 125		

Lab Sample ID: 500-141794-7 MSD
Matrix: Water
Analysis Batch: 422970

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100		50.0	145		mg/L		90	75 - 125	2	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-423125/3
Matrix: Water
Analysis Batch: 423125

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			03/10/18 14:30	1

Lab Sample ID: LCS 500-423125/4
Matrix: Water
Analysis Batch: 423125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			10.0	10.2		mg/L		102	80 - 120		

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 500-141794-1 MS
Matrix: Water
Analysis Batch: 423125

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.76		5.00	5.83		mg/L		101	75 - 125

Lab Sample ID: 500-141794-1 MSD
Matrix: Water
Analysis Batch: 423125

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.76		5.00	5.83		mg/L		101	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-424332/3
Matrix: Water
Analysis Batch: 424332

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			03/21/18 07:04	1

Lab Sample ID: LCS 500-424332/4
Matrix: Water
Analysis Batch: 424332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.6		mg/L		98	80 - 120

Lab Sample ID: 500-141794-11 MS
Matrix: Water
Analysis Batch: 424332

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	180		400	579		mg/L		99	75 - 125

Lab Sample ID: 500-141794-11 MSD
Matrix: Water
Analysis Batch: 424332

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	180		400	593		mg/L		103	75 - 125	2	20

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

48 hr.

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.1 → 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1218 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Meta 15	Cl, Fl, SO4, TDS							
1		G205	03/06/18	0910	4	W		—	—	—							
2		G205 Dup	03/06/18	0910	4	W		—	—	—							

500-141794 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	T&L	03/06/18	1555	[signature]	TALHI	03/06/18	1555
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

3/23/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q18 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						Comments
3		G305	03/07/18	0923	5	W		—	—	—						
4		R325	03/07/18	1114	5	W		—	—	—						
5		T035	03/07/18	1308	5	W		—	—	—						
6		G445	03/07/18	1414	5	W		—	—	—						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

500-141794 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DL	TAL	03/07/18	1600	Dirk Sandy	TALHI	03/07/18	1600
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

3/23/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-141794 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.4 → 2.9

Client: Midwest Generation | Client Project #: EME LLC

Project Name: Joliet #9 CCR - 1018 GS

Project Location/State: Joliet, IL | Lab Project #:

Sampler: Noe L., Rob P. | Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS						Comments
7		G485	03/08/18	0915	5	W		1	1	1						
8		G475	03/08/18	1054	5	W		1	1	1						
9		G465	03/08/18	1320	5	W		1	1	1						
10		R085	03/08/18	1420	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAC	03/08/18	1535	[illegible]	TA-CHI	3/8/18	1535

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6041
Phone: 708.534.5200 Fax: 708.534.5

500-141794 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

Chain of Custody Number:

48 hr TAT

Page _____ of _____

Temperature °C of Cooler: -0.3 → 1.2

Client	Client Project #
Midwest Generation EME LLC	
Project Name: Joliet #9 CCR - 1Q18 GW	
Project Location/State: Joliet, IL.	Lab Project #
Sampler: Noe L., Rob P.	Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
11		G45S	03/09/18	0951	5	W		1	1	1							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	03/09/18	1128	[signature]	TA-CHI	3/9/18	1128
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

3/23/2018

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-141794-1

Login Number: 141794
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,2.9,1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Client Sample ID: G20S

Lab Sample ID: 500-141794-1

Date Collected: 03/06/18 09:10

Matrix: Water

Date Received: 03/06/18 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422468	03/07/18 06:47	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	422834	03/09/18 03:57	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422468	03/07/18 06:47	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	422721	03/08/18 12:25	FXG	TAL CHI
Total Recoverable	Prep	3005A			422468	03/07/18 06:47	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	422844	03/08/18 14:23	PFK	TAL CHI
Total/NA	Prep	7470A			422527	03/07/18 11:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	422690	03/08/18 08:40	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	422860	03/09/18 16:11	CCK	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	422970	03/09/18 23:58	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 14:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	424332		CLB	TAL CHI
					(Start)	03/21/18 07:06		
					(End)	03/21/18 07:07		
Total/NA	Analysis	Field Sampling		1	423108	03/06/18 09:10	JVB	TAL CHI

Client Sample ID: G20S Dup

Lab Sample ID: 500-141794-2

Date Collected: 03/06/18 09:10

Matrix: Water

Date Received: 03/06/18 15:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422468	03/07/18 06:47	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	422834	03/09/18 04:10	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422468	03/07/18 06:47	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	422721	03/08/18 12:29	FXG	TAL CHI
Total Recoverable	Prep	3005A			422468	03/07/18 06:47	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	422844	03/08/18 14:26	PFK	TAL CHI
Total/NA	Prep	7470A			422527	03/07/18 11:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	422690	03/08/18 08:47	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	422860	03/09/18 16:15	CCK	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	422970	03/09/18 23:58	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 14:44	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	424332		CLB	TAL CHI
					(Start)	03/21/18 07:07		
					(End)	03/21/18 07:08		
Total/NA	Analysis	Field Sampling		1	423108	03/06/18 09:10	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Client Sample ID: G30S

Date Collected: 03/07/18 09:23
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423069	03/10/18 02:29	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423103	03/09/18 20:38	PFK	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	423196	03/12/18 11:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423196	03/12/18 17:25	FXG	TAL CHI
Total/NA	Prep	7470A			422891	03/09/18 12:10	EEN	TAL CHI
Total/NA	Analysis	7470A		1	423140	03/12/18 10:49	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423421	03/14/18 06:40	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 14:48	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	424332		CLB	TAL CHI
					(Start)	03/21/18 07:08		
					(End)	03/21/18 07:09		
Total/NA	Analysis	Field Sampling		1	423108	03/07/18 09:23	JVB	TAL CHI

Client Sample ID: R32S

Date Collected: 03/07/18 11:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423418	03/14/18 05:28	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	422844	03/08/18 21:30	PFK	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423107	03/09/18 11:48	FXG	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	423196	03/12/18 12:36	FXG	TAL CHI
Total/NA	Prep	7470A			422713	03/08/18 11:55	EEN	TAL CHI
Total/NA	Analysis	7470A		1	422884	03/09/18 09:48	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423421	03/14/18 06:45	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 14:50	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	424332		CLB	TAL CHI
					(Start)	03/21/18 07:09		
					(End)	03/21/18 07:10		
Total/NA	Analysis	Field Sampling		1	423108	03/07/18 11:14	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Client Sample ID: T03S

Date Collected: 03/07/18 13:08
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423418	03/14/18 05:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	422844	03/08/18 21:33	PFK	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423107	03/09/18 11:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	423196	03/12/18 12:39	FXG	TAL CHI
Total/NA	Prep	7470A			422713	03/08/18 11:55	EEN	TAL CHI
Total/NA	Analysis	7470A		1	422884	03/09/18 09:49	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423421	03/14/18 06:48	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 14:53	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	424332	(Start) 03/21/18 07:10 (End) 03/21/18 07:11	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	423108	03/07/18 13:08	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 03/07/18 14:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423418	03/14/18 05:37	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	422844	03/08/18 21:37	PFK	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423107	03/09/18 11:56	FXG	TAL CHI
Total Recoverable	Prep	3005A			422626	03/08/18 06:51	JEF	TAL CHI
Total Recoverable	Analysis	6020A		5	423196	03/12/18 12:43	FXG	TAL CHI
Total/NA	Prep	7470A			422713	03/08/18 11:55	EEN	TAL CHI
Total/NA	Analysis	7470A		1	422884	03/09/18 09:56	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423421	03/14/18 06:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	422970	03/10/18 00:00	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 14:56	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	424332	(Start) 03/21/18 07:11 (End) 03/21/18 07:12	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	423108	03/07/18 14:14	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Client Sample ID: G48S

Date Collected: 03/08/18 09:15
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423069	03/10/18 02:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423103	03/09/18 20:41	PFK	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	423196	03/12/18 11:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423196	03/12/18 17:29	FXG	TAL CHI
Total/NA	Prep	7470A			422891	03/09/18 12:10	EEN	TAL CHI
Total/NA	Analysis	7470A		1	423140	03/12/18 10:54	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423562	03/15/18 05:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:22	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 15:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	424332		CLB	TAL CHI
					(Start)	03/21/18 07:12		
					(End)	03/21/18 07:13		
Total/NA	Analysis	Field Sampling		1	423108	03/08/18 09:15	JVB	TAL CHI

Client Sample ID: G47S

Date Collected: 03/08/18 10:54
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423069	03/10/18 02:38	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423103	03/09/18 20:45	PFK	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		100	423196	03/12/18 12:02	FXG	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423196	03/12/18 17:32	FXG	TAL CHI
Total/NA	Prep	7470A			422891	03/09/18 12:10	EEN	TAL CHI
Total/NA	Analysis	7470A		1	423140	03/12/18 10:55	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423562	03/15/18 05:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:23	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 15:11	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	424332		CLB	TAL CHI
					(Start)	03/21/18 07:13		
					(End)	03/21/18 07:14		
Total/NA	Analysis	Field Sampling		1	423108	03/08/18 10:54	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-141794-9

Date Collected: 03/08/18 13:20

Matrix: Water

Date Received: 03/08/18 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423069	03/10/18 02:43	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423103	03/09/18 20:49	PFK	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	423196	03/12/18 12:05	FXG	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423196	03/12/18 17:36	FXG	TAL CHI
Total/NA	Prep	7470A			422891	03/09/18 12:10	EEN	TAL CHI
Total/NA	Analysis	7470A		1	423140	03/12/18 10:57	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423562	03/15/18 05:24	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 15:13	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	424332		CLB	TAL CHI
					(Start)	03/21/18 07:16		
					(End)	03/21/18 07:17		
Total/NA	Analysis	Field Sampling		1	423108	03/08/18 13:20	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-141794-10

Date Collected: 03/08/18 14:20

Matrix: Water

Date Received: 03/08/18 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6010C		1	423069	03/10/18 02:48	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423103	03/09/18 20:53	PFK	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		20	423196	03/12/18 12:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			422800	03/09/18 07:03	JEF	TAL CHI
Total Recoverable	Analysis	6020A		1	423196	03/12/18 17:40	FXG	TAL CHI
Total/NA	Prep	7470A			422891	03/09/18 12:10	EEN	TAL CHI
Total/NA	Analysis	7470A		1	423140	03/12/18 10:59	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423562	03/15/18 05:27	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 15:16	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	424332		CLB	TAL CHI
					(Start)	03/21/18 07:17		
					(End)	03/21/18 07:18		
Total/NA	Analysis	Field Sampling		1	423108	03/08/18 14:20	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-1

Client Sample ID: G45S

Date Collected: 03/09/18 09:51
Date Received: 03/09/18 11:28

Lab Sample ID: 500-141794-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			422977	03/10/18 11:36	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	423418	03/14/18 04:54	PJ1	TAL CHI
Total Recoverable	Prep	3005A			422977	03/10/18 11:36	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	423268	03/13/18 00:20	FXG	TAL CHI
Total/NA	Prep	7470A			423143	03/12/18 12:30	EEN	TAL CHI
Total/NA	Analysis	7470A		1	423278	03/13/18 09:14	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	423562	03/15/18 05:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	422970	03/10/18 00:25	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	423125	03/10/18 15:18	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	424332		CLB	TAL CHI
					(Start)	03/21/18 07:18		
					(End)	03/21/18 07:19		
Total/NA	Analysis	Field Sampling		1	423108	03/09/18 09:51	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/06/18 Start Purge: 0850 (2400 Hr. Clock) End Purge: 0910

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.78 (ft)

Ref. Measuring Pt. TIC

Well Elevation *580.33 (ft./msl)

Water Level 46.65 (ft.)

Ground Water Elev. 533.68 (ft./msl)

Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.30	7.32	7.32	(std.)
SC	630	632	632	(umhos/cm)
Temp.	9.51	9.77	9.77	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 31° F, Cloudy, SE winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 46.65 - 2.78 = 43.87 (ft.)

Levels were taken on 03/06/18 @ 0840.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd Final

Stick Up 2.78 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *580.33 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *442.28 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-3

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/07/18 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0923

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 1.48 (ft.)
Ground Water Elev. 522.92 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.98	7.97	7.97	(std.)
SC	1,550	1,550	1,550	(umhos/cm)
Temp.	6.59	6.60	6.60	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 30°F, Mostly Cloudy, NW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.48 - 2.31 = -0.83 (ft.)
Levels were taken on 03/07/18 @ 0845.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-4

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/07/18 Start Purge: 1055 (2400 Hr. Clock) End Purge: 1114

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.81 (ft./msl)
Water Level 16.98 (ft.)
Ground Water Elev. 519.83 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.56	7.57	7.57	(std.)
SC	1023	1019	1019	(umhos/cm)
Temp.	10.33	10.29	10.29	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 32°F, Partly Cloudy, NW winds 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 16.98 - 2.03 = 14.95 (ft.)
Levels were taken on 03/07/18 @ 1045.

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-5

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/07/18 Start Purge: 1250 (2400 Hr. Clock) End Purge: 1308

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.65 (ft./msl)

Water Level 131.05 (ft.)

Ground Water Elev. 498.60 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.35	7.34	7.34	(std.)
SC	1180	1176	1176	(umhos/cm)
Temp.	9.59	9.75	9.75	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 33°F, Mostly Cloudy, NW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 131.05 - 3.08 = 127.97 (ft.)

Levels were taken on 03/07/18 @ 1240.

* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/07/18 Start Purge: 1400 (2400 Hr. Clock) End Purge: 1414

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 78.74 (ft.)
Ground Water Elev. 507.95 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.18	7.19	7.19	(std.)
SC	884	884	884	(umhos/cm)
Temp.	9.86	9.97	9.97	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 33°F, Partly Cloudy, NW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 78.74 - 2.18 = 76.56 (ft.)
Levels were taken on 03/07/18 @ 1350.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/08/18 Start Purge: 0855 (2400 Hr. Clock) End Purge: 0915

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 99.77 (ft.)
Ground Water Elev. 521.00 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	8.14	8.13	8.13	(std.)
SC	1486	1,493	1,493	(umhos/cm)
Temp.	9.48	9.50	9.50	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 28° F, Sunny, NW winds e 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 99.77 - 2.45 = 97.32 (ft.)
Levels were taken on 03/08/18 @ 0840.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/08/18 Start Purge: 1035 (2400 Hr. Clock) End Purge: 1054

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 93.63 (ft.)
Ground Water Elev. 518.69 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	10.66	10.67	10.67	(std.)
SC	2560	2560	2560	(umhos/cm)
Temp.	10.91	11.14	11.14	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 31°F, Partly Cloudy, NW winds@ 10-15mph

Other: *Reference Measurement
Depth To Water from L.S. = 93.63 - 2.50 = 91.13 (Ft.)
Levels were taken on 03/08/18 @ 1025.

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/08/18 Start Purge: 1300 (2400 Hr. Clock) End Purge: 1320

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 96.80 (ft.)

Ground Water Elev. 504.52 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.76	7.75	7.75	(std.)
SC	1,253	1,263	1,263	(umhos/cm)
Temp.	11.64	11.60	11.60	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 32°F, Cloudy, NW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 96.80 - 2.70 = 94.10 (ft)

Levels were taken on 03/08/18 @ 1250.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/08/18 Start Purge: 1405 (2400 Hr. Clock) End Purge: 1420

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 65.12 (ft.)
Ground Water Elev. 513.53 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.63	8.62	8.62	(std.)
SC	1,015	1,010	1,010	(umhos/cm)
Temp.	11.09	11.11	11.11	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 32°F, Cloudy, W winds @ 10-15 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 65.12 - 2.55 = 62.57 (ft.)
Levels were taken on 03/08/18 @ 1355.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-141794-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 03/09/18 Start Purge: 0935 (2400 Hr. Clock) End Purge: 0951

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 61.82 (ft.)
Ground Water Elev. 541.49 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.20	7.18	7.18	(std.)
SC	970	967	967	(umhos/cm)
Temp.	12.51	12.50	12.50	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 30°F, Fair, W winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 61.82 - 2.97 = 58.85 (ft.)
Levels were taken on 03/09/18 @ 0920.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-141794-2
Client Project/Site: Joliet #9 CCR - 1Q18 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
4/8/2018 8:10:12 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-141794-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-141794-2

Comments
No additional comments.

Receipt
The samples were received on 3/6/2018 3:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6º C and 2.9º C.

RAD
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-141794-1	G20S	Water	03/06/18 09:10	03/06/18 15:55
500-141794-2	G20S Dup	Water	03/06/18 09:10	03/06/18 15:55
500-141794-3	G30S	Water	03/07/18 09:23	03/07/18 16:00
500-141794-4	R32S	Water	03/07/18 11:14	03/07/18 16:00
500-141794-5	T03S	Water	03/07/18 13:08	03/07/18 16:00
500-141794-6	G44S	Water	03/07/18 14:14	03/07/18 16:00
500-141794-7	G48S	Water	03/08/18 09:15	03/08/18 15:35
500-141794-8	G47S	Water	03/08/18 10:54	03/08/18 15:35
500-141794-9	G46S	Water	03/08/18 13:20	03/08/18 15:35
500-141794-10	R08S	Water	03/08/18 14:20	03/08/18 15:35
500-141794-11	G45S	Water	03/09/18 09:51	03/09/18 11:28

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Client Sample ID: G20S

Date Collected: 03/06/18 09:10
Date Received: 03/06/18 15:55

Lab Sample ID: 500-141794-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.52		0.210	0.250	1.00	0.0796	pCi/L	03/12/18 09:18	04/04/18 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:19*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.32		0.319	0.341	1.00	0.386	pCi/L	03/12/18 10:23	03/21/18 14:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:45*	*1*
Y Carrier	*92.3*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.83		0.382	0.423	5.00	0.386	pCi/L		04/04/18 16:12	1

Client Sample ID: G20S Dup

Date Collected: 03/06/18 09:10
Date Received: 03/06/18 15:55

Lab Sample ID: 500-141794-2

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.29		0.193	0.225	1.00	0.0905	pCi/L	03/12/18 09:18	04/04/18 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:19*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.90		0.339	0.381	1.00	0.341	pCi/L	03/12/18 10:23	03/21/18 14:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:46*	*1*
Y Carrier	*92.0*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.18		0.390	0.442	5.00	0.341	pCi/L		04/04/18 16:12	1

Client Sample ID: G30S

Date Collected: 03/07/18 09:23
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.780		0.150	0.166	1.00	0.0905	pCi/L	03/12/18 09:18	04/04/18 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:19*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.16		0.322	0.339	1.00	0.419	pCi/L	03/12/18 10:23	03/21/18 14:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:46*	*1*
Y Carrier	*89.7*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.94		0.355	0.377	5.00	0.419	pCi/L		04/04/18 16:12	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Client Sample ID: R32S

Date Collected: 03/07/18 11:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.32		0.197	0.230	1.00	0.0896	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.24		0.288	0.310	1.00	0.339	pCi/L	03/12/18 10:23	03/21/18 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:32*	*1*
Y Carrier	*90.8*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.56		0.349	0.386	5.00	0.339	pCi/L		04/04/18 16:12	1

Client Sample ID: T03S

Date Collected: 03/07/18 13:08
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.808		0.161	0.177	1.00	0.0944	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.488		0.231	0.235	1.00	0.329	pCi/L	03/12/18 10:23	03/21/18 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:32*	*1*
Y Carrier	*90.5*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:32*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.30		0.282	0.294	5.00	0.329	pCi/L		04/04/18 16:12	1

Client Sample ID: G44S
Date Collected: 03/07/18 14:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-6
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.480		0.126	0.133	1.00	0.0907	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.825		0.269	0.280	1.00	0.351	pCi/L	03/12/18 10:23	03/21/18 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.2*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*
Y Carrier	*90.8*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.31		0.297	0.310	5.00	0.351	pCi/L		04/04/18 16:12	1

Client Sample ID: G48S

Date Collected: 03/08/18 09:15
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-7

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.66		0.225	0.270	1.00	0.0946	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.640		0.294	0.299	1.00	0.433	pCi/L	03/12/18 10:23	03/21/18 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.3*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*
Y Carrier	*90.8*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.30		0.370	0.403	5.00	0.433	pCi/L		04/04/18 16:12	1

Client Sample ID: G47S

Date Collected: 03/08/18 10:54
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-8

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.479**		0.121	0.128	1.00	0.0761	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.311	U	0.235	0.236	1.00	0.369	pCi/L	03/12/18 10:23	03/21/18 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*
Y Carrier	*90.8*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.790**		0.264	0.268	5.00	0.369	pCi/L		04/04/18 16:12	1

Client Sample ID: G46S

Date Collected: 03/08/18 13:20
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.551		0.129	0.138	1.00	0.0842	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.742		0.268	0.276	1.00	0.364	pCi/L	03/12/18 10:23	03/21/18 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.6*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*
Y Carrier	*91.2*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.29		0.297	0.309	5.00	0.364	pCi/L		04/04/18 16:12	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Client Sample ID: R08S
Date Collected: 03/08/18 14:20
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.776		0.149	0.165	1.00	0.0789	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.773		0.282	0.291	1.00	0.395	pCi/L	03/12/18 10:23	03/21/18 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*
Y Carrier	*91.2*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.55		0.319	0.335	5.00	0.395	pCi/L		04/04/18 16:12	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Client Sample ID: G45S
Date Collected: 03/09/18 09:51
Date Received: 03/09/18 11:28

Lab Sample ID: 500-141794-11
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.20		0.186	0.216	1.00	0.0593	pCi/L	03/12/18 09:18	04/04/18 09:20	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:20*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.684		0.272	0.279	1.00	0.381	pCi/L	03/12/18 10:23	03/21/18 14:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*
Y Carrier	*91.2*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:33*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.89		0.330	0.353	5.00	0.381	pCi/L		04/04/18 16:12	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 355032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	PrecSep-21	
500-141794-2	G20S Dup	Total/NA	Water	PrecSep-21	
500-141794-3	G30S	Total/NA	Water	PrecSep-21	
500-141794-4	R32S	Total/NA	Water	PrecSep-21	
500-141794-5	T03S	Total/NA	Water	PrecSep-21	
500-141794-6	G44S	Total/NA	Water	PrecSep-21	
500-141794-7	G48S	Total/NA	Water	PrecSep-21	
500-141794-8	G47S	Total/NA	Water	PrecSep-21	
500-141794-9	G46S	Total/NA	Water	PrecSep-21	
500-141794-10	R08S	Total/NA	Water	PrecSep-21	
500-141794-11	G45S	Total/NA	Water	PrecSep-21	
MB 160-355032/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-355032/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-141794-3 DU	G30S	Total/NA	Water	PrecSep-21	

Prep Batch: 355050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-141794-1	G20S	Total/NA	Water	PrecSep_0	
500-141794-2	G20S Dup	Total/NA	Water	PrecSep_0	
500-141794-3	G30S	Total/NA	Water	PrecSep_0	
500-141794-4	R32S	Total/NA	Water	PrecSep_0	
500-141794-5	T03S	Total/NA	Water	PrecSep_0	
500-141794-6	G44S	Total/NA	Water	PrecSep_0	
500-141794-7	G48S	Total/NA	Water	PrecSep_0	
500-141794-8	G47S	Total/NA	Water	PrecSep_0	
500-141794-9	G46S	Total/NA	Water	PrecSep_0	
500-141794-10	R08S	Total/NA	Water	PrecSep_0	
500-141794-11	G45S	Total/NA	Water	PrecSep_0	
MB 160-355050/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-355050/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-141794-3 DU	G30S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-355032/1-A
Matrix: Water
Analysis Batch: 358771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 355032

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.005913	U	0.0280	0.0280	1.00	0.0677	pCi/L	03/12/18 09:18	04/04/18 09:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*03/12/18 09:18*	*04/04/18 09:14*	*1*

Lab Sample ID: LCS 160-355032/2-A
Matrix: Water
Analysis Batch: 358771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 355032

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.8	10.24		1.04	1.00	0.0631	pCi/L	87	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*

Lab Sample ID: 500-141794-3 DU
Matrix: Water
Analysis Batch: 358770

Client Sample ID: G30S
Prep Type: Total/NA
Prep Batch: 355032

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.780			0.7778		0.164	1.00	0.0834	pCi/L			0.01	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-355050/1-A
Matrix: Water
Analysis Batch: 356878

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 355050

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2317	U	0.200	0.201	1.00	0.318	pCi/L	03/12/18 10:23	03/21/18 14:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:44*	*1*
Y Carrier	*90.8*		*40 - 110*	*03/12/18 10:23*	*03/21/18 14:44*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-355050/2-A
Matrix: Water
Analysis Batch: 356878

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 355050

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.46	9.670		1.10	1.00	0.325	pCi/L	114	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

Lab Sample ID: 500-141794-3 DU
Matrix: Water
Analysis Batch: 356878

Client Sample ID: G30S
Prep Type: Total/NA
Prep Batch: 355050

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.16			1.017		0.315	1.00	0.396	pCi/L			0.22	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*91.6*		*40 - 110*

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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Phone: 708.534.5200 Fax: 708.534.5211

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Report To
Contact:
Company:
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Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

48 hr.

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.1 → 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1218 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Rob P
Lab PM: Eric Lang

Preservative: 3 | 3 | 8

Parameter: Radium 226/228 | Total Meta 15 | Cl, Fl, SO4, TDS

500-141794 COC

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Radium 226/228	Total Meta 15	Cl, Fl, SO4, TDS	Comments
1		G205	03/06/18	0910	4	W	—	—	—	
2		G205 Dup	03/06/18	0910	4	W	—	—	—	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	T&L	03/06/18	1555	[signature]	TALHI	03/06/18	1555

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
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Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 1Q18 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						Comments
3		G30S	03/07/18	0923	5	W		—	—	—						
4		R32S	03/07/18	1114	5	W		—	—	—						
5		T03S	03/07/18	1308	5	W		—	—	—						
6		G44S	03/07/18	1414	5	W		—	—	—						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

500-141794 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DL	TAL	03/07/18	1600	Dirk Sandy	TALHI	03/07/18	1600
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-141794 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.4 → 2.9

Client: Midwest Generation | Client Project #: EME LLC

Project Name: Joliet #9 CCR - 1018 GS

Project Location/State: Joliet, IL | Lab Project #:

Sampler: Noe L., Rob P. | Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS						Comments
7		G485	03/08/18	0915	5	W		1	1	1						
8		G475	03/08/18	1054	5	W		1	1	1						
9		G465	03/08/18	1320	5	W		1	1	1						
10		R085	03/08/18	1420	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAC	03/08/18	1535	[illegible]	TA-CHI	3/8/18	1535

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6048
Phone: 708.534.5200 Fax: 708.534.5

500-141794 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-141794

Chain of Custody Number:

48 hr TAT

Page _____ of _____

Temperature °C of Cooler: -0.3 → 1.2

Client	Client Project #
Midwest Generation EME LLC	
Project Name: Joliet #9 CCR - 1Q18 GW	
Project Location/State: Joliet, IL.	Lab Project #
Sampler: Noe L., Rob P.	Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS						Comments
11		G45S	03/09/18	0951	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	03/09/18	1128	[signature]	TA-CHI	3/9/18	1128
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

4/8/2018

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-101500.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-141794-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/16/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
R32S (500-141794-4)	3/7/18	11:14 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-141794-5)	3/7/18	13:08 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-141794-6)	3/7/18	14:14 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	03/07/18 1630	TAIT	[signature] Kristene Taylor	3-8-18 1000	TASR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-101493.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-141794-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 4/3/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-141794-1)	3/6/18	09:10 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G20S Dup (500-141794-2)	3/6/18	09:10 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Sherri Scott	3/7/18 1510	TA-CHI	Kristene Taylor	3.8.18 1000	TASTL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-101546.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-141794-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/16/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G48S (500-141794-7)	3/8/18	09:15 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-141794-8)	3/8/18	10:54 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G46S (500-141794-9)	3/8/18	13:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-141794-10)	3/8/18	14:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	3/9/18 1600	TA	[signature]	3/10/18 0830	TASR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-101583.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-141794-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 3/16/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G45S (500-141794-11)	3/9/18	09:51 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	3/9/18 1600	TA	[signature]	3.10.18 0830	TASR
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-141794-2

Login Number: 141794
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.6,2.9,1.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-141794-2

Login Number: 141794
List Number: 2
Creator: Taylor, Kristene N

List Source: TestAmerica St. Louis
List Creation: 03/08/18 04:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	21.0,21.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-141794-2

Login Number: 141794
List Number: 3
Creator: Clarke, Jill C

List Source: TestAmerica St. Louis
List Creation: 03/10/18 12:22 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Client Sample ID: G20S
Date Collected: 03/06/18 09:10
Date Received: 03/06/18 15:55

Lab Sample ID: 500-141794-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356878	03/21/18 14:45	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: G20S Dup
Date Collected: 03/06/18 09:10
Date Received: 03/06/18 15:55

Lab Sample ID: 500-141794-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356878	03/21/18 14:46	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: G30S
Date Collected: 03/07/18 09:23
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:19	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356878	03/21/18 14:46	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: R32S
Date Collected: 03/07/18 11:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:32	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Client Sample ID: T03S
Date Collected: 03/07/18 13:08
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:32	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: G44S
Date Collected: 03/07/18 14:14
Date Received: 03/07/18 16:00

Lab Sample ID: 500-141794-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:33	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: G48S
Date Collected: 03/08/18 09:15
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:33	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: G47S
Date Collected: 03/08/18 10:54
Date Received: 03/08/18 15:35

Lab Sample ID: 500-141794-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:33	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Client Sample ID: G46S

Lab Sample ID: 500-141794-9

Date Collected: 03/08/18 13:20
Matrix: Water
Date Received: 03/08/18 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:33	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: R08S

Lab Sample ID: 500-141794-10

Date Collected: 03/08/18 14:20
Matrix: Water
Date Received: 03/08/18 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:33	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Client Sample ID: G45S

Lab Sample ID: 500-141794-11

Date Collected: 03/09/18 09:51
Matrix: Water
Date Received: 03/09/18 11:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			355032	03/12/18 09:18	MBC	TAL SL
Total/NA	Analysis	903.0		1	358770	04/04/18 09:20	RTM	TAL SL
Total/NA	Prep	PrecSep_0			355050	03/12/18 10:23	MBC	TAL SL
Total/NA	Analysis	904.0		1	356963	03/21/18 14:33	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358991	04/04/18 16:12	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 1Q18 GW

TestAmerica Job ID: 500-141794-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits) Ba Carrier (40-110)
500-141794-1	G20S	93.2
500-141794-2	G20S Dup	97.6
500-141794-3	G30S	100
500-141794-3 DU	G30S	101
500-141794-4	R32S	101
500-141794-5	T03S	94.1
500-141794-6	G44S	93.2
500-141794-7	G48S	95.3
500-141794-8	G47S	96.2
500-141794-9	G46S	95.6
500-141794-10	R08S	98.8
500-141794-11	G45S	91.4
LCS 160-355032/2-A	Lab Control Sample	104
MB 160-355032/1-A	Method Blank	104

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits) Ba Carrier (40-110)	Y Carrier (40-110)
500-141794-1	G20S	93.2	92.3
500-141794-2	G20S Dup	97.6	92.0
500-141794-3	G30S	100	89.7
500-141794-3 DU	G30S	101	91.6
500-141794-4	R32S	101	90.8
500-141794-5	T03S	94.1	90.5
500-141794-6	G44S	93.2	90.8
500-141794-7	G48S	95.3	90.8
500-141794-8	G47S	96.2	90.8
500-141794-9	G46S	95.6	91.2
500-141794-10	R08S	98.8	91.2
500-141794-11	G45S	91.4	91.2
LCS 160-355050/2-A	Lab Control Sample	104	89.7
MB 160-355050/1-A	Method Blank	104	90.8

Tracer/Carrier Legend

Ba Carrier = Ba Carrier
Y Carrier = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145553-1
Client Project/Site: Joliet #9 CCR - 2Q18 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
6/5/2018 3:54:52 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Job ID: 500-145553-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-145553-1

Comments
No additional comments.

Receipt
The samples were received on 5/16/2018 3:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6º C, 3.4º C, 3.8º C and 5.4º C.

Metals
Method(s) 6020A: The initial calibration verification low level (ICVL) in AD batch 432940 recovered above the upper control limit for Lead. The samples associated with this QC were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-433252. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-433604. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-433664. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-434570. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145553-1	G20S	GW	05/16/18 09:45	05/16/18 15:10
500-145553-2	G30S	GW	05/17/18 09:13	05/17/18 15:35
500-145553-3	DUP	Water	05/17/18 09:13	05/17/18 15:35
500-145553-4	G44S	GW	05/17/18 12:34	05/17/18 15:35
500-145553-5	T03S	GW	05/17/18 13:55	05/17/18 15:35
500-145553-6	G48S	GW	05/18/18 08:45	05/18/18 14:45
500-145553-7	G47S	GW	05/18/18 10:07	05/18/18 14:45
500-145553-8	G46S	GW	05/18/18 12:20	05/18/18 14:45
500-145553-9	R08S	GW	05/18/18 13:20	05/18/18 14:45
500-145553-10	R32S	Water	05/21/18 10:04	05/21/18 12:35
500-145553-11	G45S	Water	05/21/18 11:15	05/21/18 12:35

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G20S
Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.040		0.010		mg/L		05/17/18 07:32	05/18/18 01:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/17/18 07:32	05/18/18 01:51	1
Barium	0.049		0.0025		mg/L		05/17/18 07:32	05/18/18 01:51	1
Boron	1.2		0.050		mg/L		05/17/18 07:32	05/18/18 01:51	1
Calcium	61		0.20		mg/L		05/17/18 07:32	05/18/18 01:51	1
Cobalt	0.0024		0.0010		mg/L		05/17/18 07:32	05/18/18 01:51	1
Lead	<0.00050	^	0.00050		mg/L		05/17/18 07:32	05/18/18 01:51	1
Molybdenum	0.019		0.0050		mg/L		05/17/18 07:32	05/18/18 01:51	1
Selenium	<0.0025		0.0025		mg/L		05/17/18 07:32	05/18/18 01:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		10		mg/L			05/17/18 04:15	1
Chloride	12		2.0		mg/L			05/20/18 21:14	1
Fluoride	0.75		0.10		mg/L			05/26/18 15:32	1
Sulfate	87		25		mg/L			06/04/18 13:08	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	46.05				ft			05/16/18 09:45	1
Depth to Water (ft from MP)	48.83				ft			05/16/18 09:45	1
Elevation of well (ft from MP)	580.33				ft			05/16/18 09:45	1
Field pH	7.06				SU			05/16/18 09:45	1
Field Temperature	76.5				Degrees F			05/16/18 09:45	1
Ground Water Elevation	531.50				ft			05/16/18 09:45	1
Specific Conductance	601				umhos/cm			05/16/18 09:45	1
Well bottom elevation	442.28				ft			05/16/18 09:45	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G30S
Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		05/18/18 08:00	05/22/18 03:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.0010		mg/L		05/18/18 08:00	05/19/18 00:09	1
Barium	0.043		0.0025		mg/L		05/18/18 08:00	05/19/18 00:09	1
Boron	5.7		1.0		mg/L		05/18/18 08:00	05/21/18 20:08	20
Calcium	55		0.20		mg/L		05/18/18 08:00	05/19/18 00:09	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:09	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:09	1
Molybdenum	0.13		0.0050		mg/L		05/18/18 08:00	05/19/18 00:09	1
Selenium	<0.0025	F1	0.0025		mg/L		05/18/18 08:00	05/19/18 00:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			05/22/18 04:45	1
Chloride	210		10		mg/L			05/20/18 22:18	5
Fluoride	1.2		0.10		mg/L			05/26/18 15:45	1
Sulfate	540		100		mg/L			06/04/18 13:09	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-0.69				ft			05/17/18 09:13	1
Depth to Water (ft from MP)	1.62				ft			05/17/18 09:13	1
Elevation of well (ft from MP)	524.40				ft			05/17/18 09:13	1
Field pH	7.77				SU			05/17/18 09:13	1
Field Temperature	55.4				Degrees F			05/17/18 09:13	1
Ground Water Elevation	522.78				ft			05/17/18 09:13	1
Specific Conductance	1490				umhos/cm			05/17/18 09:13	1
Well bottom elevation	462.58				ft			05/17/18 09:13	1

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.021**		0.010		mg/L		05/18/18 08:00	05/22/18 04:06	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.011**		0.0010		mg/L		05/18/18 08:00	05/19/18 00:29	1
Barium	**0.041**		0.0025		mg/L		05/18/18 08:00	05/19/18 00:29	1
Boron	**5.7**		1.0		mg/L		05/18/18 08:00	05/21/18 20:34	20
Calcium	**53**		0.20		mg/L		05/18/18 08:00	05/19/18 00:29	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:29	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:29	1
Molybdenum	**0.14**		0.0050		mg/L		05/18/18 08:00	05/19/18 00:29	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/19/18 00:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			05/22/18 04:50	1
Chloride	**210**		10		mg/L			05/20/18 22:18	5
Fluoride	**1.3**		0.10		mg/L			05/26/18 15:48	1
Sulfate	**560**		100		mg/L			06/04/18 13:10	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**-0.69**				ft			05/17/18 09:13	1
Depth to Water (ft from MP)	**1.62**				ft			05/17/18 09:13	1
Elevation of well (ft from MP)	**524.40**				ft			05/17/18 09:13	1
Field pH	**7.77**				SU			05/17/18 09:13	1
Field Temperature	**55.4**				Degrees F			05/17/18 09:13	1
Ground Water Elevation	**522.78**				ft			05/17/18 09:13	1
Specific Conductance	**1490**				umhos/cm			05/17/18 09:13	1
Well bottom elevation	**462.58**				ft			05/17/18 09:13	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G44S

Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.016**		0.010		mg/L		05/18/18 08:00	05/22/18 04:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:32	1
Barium	**0.054**		0.0025		mg/L		05/18/18 08:00	05/19/18 00:32	1
Boron	**0.98**		0.25		mg/L		05/18/18 08:00	05/21/18 20:38	5
Calcium	**120**		0.20		mg/L		05/18/18 08:00	05/19/18 00:32	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:32	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:32	1
Molybdenum	**0.071**		0.0050		mg/L		05/18/18 08:00	05/19/18 00:32	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/19/18 00:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**780**		10		mg/L			05/22/18 04:53	1
Chloride	**35**		2.0		mg/L			05/20/18 21:17	1
Fluoride	**0.18**		0.10		mg/L			05/26/18 15:51	1
Sulfate	**96**		50		mg/L			06/05/18 09:16	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**77.99**				ft			05/17/18 12:34	1
Depth to Water (ft from MP)	**80.17**				ft			05/17/18 12:34	1
Elevation of well (ft from MP)	**586.69**				ft			05/17/18 12:34	1
Field pH	**7.02**				SU			05/17/18 12:34	1
Field Temperature	**59.2**				Degrees F			05/17/18 12:34	1
Ground Water Elevation	**506.52**				ft			05/17/18 12:34	1
Specific Conductance	**855**				umhos/cm			05/17/18 12:34	1
Well bottom elevation	**586.69**				ft			05/17/18 12:34	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: T03S
Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		05/18/18 08:00	05/22/18 04:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0010		0.0010		mg/L		05/18/18 08:00	05/19/18 00:36	1
Barium	0.087		0.0025		mg/L		05/18/18 08:00	05/19/18 00:36	1
Boron	1.8		0.25		mg/L		05/18/18 08:00	05/21/18 20:42	5
Calcium	100		0.20		mg/L		05/18/18 08:00	05/19/18 00:36	1
Cobalt	0.0013		0.0010		mg/L		05/18/18 08:00	05/19/18 00:36	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/19/18 00:36	1
Molybdenum	0.24		0.0050		mg/L		05/18/18 08:00	05/19/18 00:36	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/19/18 00:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			05/22/18 04:55	1
Chloride	82		10		mg/L			05/20/18 22:19	5
Fluoride	0.24		0.10		mg/L			05/26/18 15:54	1
Sulfate	210		50		mg/L			06/05/18 09:19	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	131.34				ft			05/17/18 13:55	1
Depth to Water (ft from MP)	134.42				ft			05/17/18 13:55	1
Elevation of well (ft from MP)	629.65				ft			05/17/18 13:55	1
Field pH	7.07				SU			05/17/18 13:55	1
Field Temperature	58.5				Degrees F			05/17/18 13:55	1
Ground Water Elevation	495.23				ft			05/17/18 13:55	1
Specific Conductance	1041				umhos/cm			05/17/18 13:55	1
Well bottom elevation	456.70				ft			05/17/18 13:55	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G48S
Date Collected: 05/18/18 08:45
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-6
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.023		0.010		mg/L		05/19/18 11:04	05/21/18 23:58	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		05/19/18 11:04	05/22/18 19:26	1
Barium	0.023		0.0025		mg/L		05/19/18 11:04	05/22/18 19:26	1
Boron	5.9		1.0		mg/L		05/19/18 11:04	05/23/18 11:38	20
Calcium	53		0.20		mg/L		05/19/18 11:04	05/22/18 19:26	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:26	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:26	1
Molybdenum	0.49		0.0050		mg/L		05/19/18 11:04	05/22/18 19:26	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			05/22/18 04:58	1
Chloride	100		10		mg/L			05/20/18 22:19	5
Fluoride	0.92		0.10		mg/L			05/26/18 16:06	1
Sulfate	370		100		mg/L			06/05/18 09:20	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.29				ft			05/18/18 08:45	1
Depth to Water (ft from MP)	100.74				ft			05/18/18 08:45	1
Elevation of well (ft from MP)	620.77				ft			05/18/18 08:45	1
Field pH	7.79				SU			05/18/18 08:45	1
Field Temperature	54.9				Degrees F			05/18/18 08:45	1
Ground Water Elevation	520.03				ft			05/18/18 08:45	1
Specific Conductance	1407				umhos/cm			05/18/18 08:45	1
Well bottom elevation	468.32				ft			05/18/18 08:45	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G47S

Date Collected: 05/18/18 10:07
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-7

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.015		0.010		mg/L		05/19/18 11:04	05/22/18 00:18	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.23		0.0010		mg/L		05/19/18 11:04	05/22/18 19:45	1
Barium	0.0087		0.0025		mg/L		05/19/18 11:04	05/22/18 19:45	1
Boron	3.7		1.0		mg/L		05/19/18 11:04	05/23/18 11:57	20
Calcium	1.1		0.20		mg/L		05/19/18 11:04	05/22/18 19:45	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:45	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:45	1
Molybdenum	1.5		0.0050		mg/L		05/19/18 11:04	05/22/18 19:45	1
Selenium	0.0039		0.0025		mg/L		05/19/18 11:04	05/22/18 19:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1800		10		mg/L			05/22/18 05:01	1
Chloride	160		10		mg/L			05/20/18 22:20	5
Fluoride	1.7		0.10		mg/L			05/26/18 16:15	1
Sulfate	570		250		mg/L			06/05/18 09:21	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	91.01				ft			05/18/18 10:07	1
Depth to Water (ft from MP)	93.51				ft			05/18/18 10:07	1
Elevation of well (ft from MP)	612.32				ft			05/18/18 10:07	1
Field pH	10.42				SU			05/18/18 10:07	1
Field Temperature	60.8				Degrees F			05/18/18 10:07	1
Ground Water Elevation	518.81				ft			05/18/18 10:07	1
Specific Conductance	2430				umhos/cm			05/18/18 10:07	1
Well bottom elevation	459.84				ft			05/18/18 10:07	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G46S
Date Collected: 05/18/18 12:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-8
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.073		0.010		mg/L		05/19/18 11:04	05/22/18 00:22	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0028		0.0010		mg/L		05/19/18 11:04	05/22/18 19:49	1
Barium	0.048		0.0025		mg/L		05/19/18 11:04	05/22/18 19:49	1
Boron	5.9		1.0		mg/L		05/19/18 11:04	05/23/18 12:01	20
Calcium	110		0.20		mg/L		05/19/18 11:04	05/22/18 19:49	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:49	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:49	1
Molybdenum	0.84		0.0050		mg/L		05/19/18 11:04	05/22/18 19:49	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			05/22/18 05:03	1
Chloride	120		10		mg/L			05/20/18 22:20	5
Fluoride	0.40		0.10		mg/L			05/26/18 16:27	1
Sulfate	260		100		mg/L			06/05/18 09:22	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	92.89				ft			05/18/18 12:20	1
Depth to Water (ft from MP)	95.59				ft			05/18/18 12:20	1
Elevation of well (ft from MP)	601.32				ft			05/18/18 12:20	1
Field pH	7.66				SU			05/18/18 12:20	1
Field Temperature	57.9				Degrees F			05/18/18 12:20	1
Ground Water Elevation	505.73				ft			05/18/18 12:20	1
Specific Conductance	1201				umhos/cm			05/18/18 12:20	1
Well bottom elevation	453.62				ft			05/18/18 12:20	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: R08S
Date Collected: 05/18/18 13:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-9
Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.15		0.010		mg/L		05/19/18 11:04	05/22/18 00:26	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0010		mg/L		05/19/18 11:04	05/22/18 19:52	1
Barium	0.046		0.0025		mg/L		05/19/18 11:04	05/22/18 19:52	1
Boron	7.7		1.0		mg/L		05/19/18 11:04	05/23/18 12:05	20
Calcium	140		0.20		mg/L		05/19/18 11:04	05/22/18 19:52	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:52	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:52	1
Molybdenum	0.35		0.0050		mg/L		05/19/18 11:04	05/22/18 19:52	1
Selenium	0.017		0.0025		mg/L		05/19/18 11:04	05/22/18 19:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	920		10		mg/L			05/22/18 05:06	1
Chloride	82		10		mg/L			05/20/18 22:21	5
Fluoride	0.14		0.10		mg/L			05/26/18 16:30	1
Sulfate	320		100		mg/L			06/05/18 09:23	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	62.76				ft			05/18/18 13:20	1
Depth to Water (ft from MP)	65.31				ft			05/18/18 13:20	1
Elevation of well (ft from MP)	578.65				ft			05/18/18 13:20	1
Field pH	8.25				SU			05/18/18 13:20	1
Field Temperature	57.9				Degrees F			05/18/18 13:20	1
Ground Water Elevation	9613.34				ft			05/18/18 13:20	1
Specific Conductance	965				umhos/cm			05/18/18 13:20	1
Well bottom elevation	453.08				ft			05/18/18 13:20	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: R32S

Date Collected: 05/21/18 10:04
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.10		0.010		mg/L		05/22/18 15:09	05/23/18 15:40	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0010		mg/L		05/22/18 15:09	05/29/18 16:40	1
Barium	0.040		0.0025		mg/L		05/22/18 15:09	05/29/18 16:40	1
Boron	4.4		0.050		mg/L		05/22/18 15:09	05/29/18 16:40	1
Calcium	120		0.20		mg/L		05/22/18 15:09	05/29/18 16:40	1
Cobalt	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:40	1
Lead	<0.00050		0.00050		mg/L		05/22/18 15:09	05/29/18 16:40	1
Molybdenum	0.64		0.0050		mg/L		05/22/18 15:09	05/29/18 16:40	1
Selenium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			05/22/18 05:08	1
Chloride	77		10		mg/L			05/28/18 18:28	5
Fluoride	0.29		0.10		mg/L			05/26/18 16:33	1
Sulfate	310		100		mg/L			06/05/18 10:17	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	18.23				ft			05/21/18 10:04	1
Depth to Water (ft from MP)	20.26				ft			05/21/18 10:04	1
Elevation of well (ft from MP)	536.81				ft			05/21/18 10:04	1
Field pH	7.13				SU			05/21/18 10:04	1
Field Temperature	52.7				Degrees F			05/21/18 10:04	1
Ground Water Elevation	516.55				ft			05/21/18 10:04	1
Specific Conductance	962				umhos/cm			05/21/18 10:04	1
Well bottom elevation	457.84				ft			05/21/18 10:04	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G45S
Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.033		0.010		mg/L		05/22/18 15:09	05/23/18 15:44	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0072		0.0010		mg/L		05/22/18 15:09	05/29/18 16:45	1
Barium	0.047		0.0025		mg/L		05/22/18 15:09	05/29/18 16:45	1
Boron	0.76		0.050		mg/L		05/22/18 15:09	05/29/18 16:45	1
Calcium	110		0.20		mg/L		05/22/18 15:09	05/29/18 16:45	1
Cobalt	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:45	1
Lead	<0.00050		0.00050		mg/L		05/22/18 15:09	05/29/18 16:45	1
Molybdenum	0.013		0.0050		mg/L		05/22/18 15:09	05/29/18 16:45	1
Selenium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	970		10		mg/L			05/22/18 05:11	1
Chloride	150		10		mg/L			05/28/18 18:28	5
Fluoride	0.33		0.10		mg/L			05/26/18 16:36	1
Sulfate	230		50		mg/L			06/05/18 10:18	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	65.53				ft			05/21/18 11:15	1
Depth to Water (ft from MP)	68.50				ft			05/21/18 11:15	1
Elevation of well (ft from MP)	603.31				ft			05/21/18 11:15	1
Field pH	7.00				SU			05/21/18 11:15	1
Field Temperature	56.3				Degrees F			05/21/18 11:15	1
Ground Water Elevation	534.81				ft			05/21/18 11:15	1
Specific Conductance	1175				umhos/cm			05/21/18 11:15	1
Well bottom elevation	471.05				ft			05/21/18 11:15	1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 432708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total Recoverable	GW	3005A	
MB 500-432708/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-432708/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 432881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total Recoverable	GW	6010C	432708
MB 500-432708/1-A	Method Blank	Total Recoverable	Water	6010C	432708
LCS 500-432708/2-A	Lab Control Sample	Total Recoverable	Water	6010C	432708

Prep Batch: 432907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	3005A	
500-145553-3	DUP	Total Recoverable	Water	3005A	
500-145553-4	G44S	Total Recoverable	GW	3005A	
500-145553-5	T03S	Total Recoverable	GW	3005A	
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-145553-2 MS	G30S	Total Recoverable	GW	3005A	
500-145553-2 MSD	G30S	Total Recoverable	GW	3005A	
500-145553-2 DU	G30S	Total Recoverable	GW	3005A	

Analysis Batch: 432940

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total Recoverable	GW	6020A	432708
MB 500-432708/1-A	Method Blank	Total Recoverable	Water	6020A	432708
LCS 500-432708/2-A	Lab Control Sample	Total Recoverable	Water	6020A	432708

Prep Batch: 433098

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total Recoverable	GW	3005A	
500-145553-7	G47S	Total Recoverable	GW	3005A	
500-145553-8	G46S	Total Recoverable	GW	3005A	
500-145553-9	R08S	Total Recoverable	GW	3005A	
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-145553-6 MS	G48S	Total Recoverable	GW	3005A	
500-145553-6 MSD	G48S	Total Recoverable	GW	3005A	
500-145553-6 DU	G48S	Total Recoverable	GW	3005A	

Analysis Batch: 433252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	6020A	432907
500-145553-3	DUP	Total Recoverable	Water	6020A	432907
500-145553-4	G44S	Total Recoverable	GW	6020A	432907
500-145553-5	T03S	Total Recoverable	GW	6020A	432907
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	6020A	432907
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	6020A	432907
500-145553-2 MS	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 MSD	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 DU	G30S	Total Recoverable	GW	6020A	432907

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Analysis Batch: 433345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	6010C	432907
500-145553-3	DUP	Total Recoverable	Water	6010C	432907
500-145553-4	G44S	Total Recoverable	GW	6010C	432907
500-145553-5	T03S	Total Recoverable	GW	6010C	432907
500-145553-6	G48S	Total Recoverable	GW	6010C	433098
500-145553-7	G47S	Total Recoverable	GW	6010C	433098
500-145553-8	G46S	Total Recoverable	GW	6010C	433098
500-145553-9	R08S	Total Recoverable	GW	6010C	433098
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	6010C	432907
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	6010C	433098
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	6010C	432907
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	6010C	433098
500-145553-2 MS	G30S	Total Recoverable	GW	6010C	432907
500-145553-2 MSD	G30S	Total Recoverable	GW	6010C	432907
500-145553-6 MS	G48S	Total Recoverable	GW	6010C	433098
500-145553-6 MSD	G48S	Total Recoverable	GW	6010C	433098
500-145553-2 DU	G30S	Total Recoverable	GW	6010C	432907
500-145553-6 DU	G48S	Total Recoverable	GW	6010C	433098

Analysis Batch: 433393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total Recoverable	GW	6020A	432907
500-145553-3	DUP	Total Recoverable	Water	6020A	432907
500-145553-4	G44S	Total Recoverable	GW	6020A	432907
500-145553-5	T03S	Total Recoverable	GW	6020A	432907
MB 500-432907/1-A	Method Blank	Total Recoverable	Water	6020A	432907
LCS 500-432907/2-A	Lab Control Sample	Total Recoverable	Water	6020A	432907
500-145553-2 MS	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 MSD	G30S	Total Recoverable	GW	6020A	432907
500-145553-2 DU	G30S	Total Recoverable	GW	6020A	432907

Prep Batch: 433467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total Recoverable	Water	3005A	
500-145553-11	G45S	Total Recoverable	Water	3005A	
MB 500-433467/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-433467/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 433604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total Recoverable	GW	6020A	433098
500-145553-7	G47S	Total Recoverable	GW	6020A	433098
500-145553-8	G46S	Total Recoverable	GW	6020A	433098
500-145553-9	R08S	Total Recoverable	GW	6020A	433098
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	6020A	433098
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433098
500-145553-6 MS	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 MSD	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 DU	G48S	Total Recoverable	GW	6020A	433098

Analysis Batch: 433664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total Recoverable	GW	6020A	433098

Metals (Continued)

Analysis Batch: 433664 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-7	G47S	Total Recoverable	GW	6020A	433098
500-145553-8	G46S	Total Recoverable	GW	6020A	433098
500-145553-9	R08S	Total Recoverable	GW	6020A	433098
MB 500-433098/1-A	Method Blank	Total Recoverable	Water	6020A	433098
LCS 500-433098/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433098
500-145553-6 MS	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 MSD	G48S	Total Recoverable	GW	6020A	433098
500-145553-6 DU	G48S	Total Recoverable	GW	6020A	433098

Analysis Batch: 433755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total Recoverable	Water	6010C	433467
500-145553-11	G45S	Total Recoverable	Water	6010C	433467
MB 500-433467/1-A	Method Blank	Total Recoverable	Water	6010C	433467
LCS 500-433467/2-A	Lab Control Sample	Total Recoverable	Water	6010C	433467

Analysis Batch: 434570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total Recoverable	Water	6020A	433467
500-145553-11	G45S	Total Recoverable	Water	6020A	433467
MB 500-433467/1-A	Method Blank	Total Recoverable	Water	6020A	433467
LCS 500-433467/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433467

General Chemistry

Analysis Batch: 432683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 2540C	
MB 500-432683/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-432683/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-145553-1 MS	G20S	Total/NA	GW	SM 2540C	
500-145553-1 DU	G20S	Total/NA	GW	SM 2540C	

Analysis Batch: 433163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 4500 Cl- E	
500-145553-2	G30S	Total/NA	GW	SM 4500 Cl- E	
500-145553-3	DUP	Total/NA	Water	SM 4500 Cl- E	
500-145553-4	G44S	Total/NA	GW	SM 4500 Cl- E	
500-145553-5	T03S	Total/NA	GW	SM 4500 Cl- E	
500-145553-6	G48S	Total/NA	GW	SM 4500 Cl- E	
500-145553-7	G47S	Total/NA	GW	SM 4500 Cl- E	
500-145553-8	G46S	Total/NA	GW	SM 4500 Cl- E	
500-145553-9	R08S	Total/NA	GW	SM 4500 Cl- E	
MB 500-433163/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-433163/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-145553-4 MS	G44S	Total/NA	GW	SM 4500 Cl- E	
500-145553-4 MSD	G44S	Total/NA	GW	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 433338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-2	G30S	Total/NA	GW	SM 2540C	
500-145553-3	DUP	Total/NA	Water	SM 2540C	
500-145553-4	G44S	Total/NA	GW	SM 2540C	
500-145553-5	T03S	Total/NA	GW	SM 2540C	
500-145553-6	G48S	Total/NA	GW	SM 2540C	
500-145553-7	G47S	Total/NA	GW	SM 2540C	
500-145553-8	G46S	Total/NA	GW	SM 2540C	
500-145553-9	R08S	Total/NA	GW	SM 2540C	
500-145553-10	R32S	Total/NA	Water	SM 2540C	
500-145553-11	G45S	Total/NA	Water	SM 2540C	
MB 500-433338/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-433338/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-145553-2 DU	G30S	Total/NA	GW	SM 2540C	

Analysis Batch: 434275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 4500 F C	
500-145553-2	G30S	Total/NA	GW	SM 4500 F C	
500-145553-3	DUP	Total/NA	Water	SM 4500 F C	
500-145553-4	G44S	Total/NA	GW	SM 4500 F C	
500-145553-5	T03S	Total/NA	GW	SM 4500 F C	
500-145553-6	G48S	Total/NA	GW	SM 4500 F C	
500-145553-7	G47S	Total/NA	GW	SM 4500 F C	
500-145553-8	G46S	Total/NA	GW	SM 4500 F C	
500-145553-9	R08S	Total/NA	GW	SM 4500 F C	
500-145553-10	R32S	Total/NA	Water	SM 4500 F C	
500-145553-11	G45S	Total/NA	Water	SM 4500 F C	
MB 500-434275/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-434275/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-434275/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-434275/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-145553-6 MS	G48S	Total/NA	GW	SM 4500 F C	
500-145553-6 MSD	G48S	Total/NA	GW	SM 4500 F C	

Analysis Batch: 434299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	SM 4500 Cl- E	
500-145553-11	G45S	Total/NA	Water	SM 4500 Cl- E	
MB 500-434299/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-434299/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 435221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	SM 4500 SO4 E	
500-145553-2	G30S	Total/NA	GW	SM 4500 SO4 E	
500-145553-3	DUP	Total/NA	Water	SM 4500 SO4 E	
MB 500-435221/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-435221/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 435373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-4	G44S	Total/NA	GW	SM 4500 SO4 E	
500-145553-5	T03S	Total/NA	GW	SM 4500 SO4 E	
500-145553-6	G48S	Total/NA	GW	SM 4500 SO4 E	
500-145553-7	G47S	Total/NA	GW	SM 4500 SO4 E	
500-145553-8	G46S	Total/NA	GW	SM 4500 SO4 E	
500-145553-9	R08S	Total/NA	GW	SM 4500 SO4 E	
MB 500-435373/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-435373/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-145553-4 MS	G44S	Total/NA	GW	SM 4500 SO4 E	
500-145553-4 MSD	G44S	Total/NA	GW	SM 4500 SO4 E	

Analysis Batch: 435378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	SM 4500 SO4 E	
500-145553-11	G45S	Total/NA	Water	SM 4500 SO4 E	
MB 500-435378/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-435378/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-145553-11 MS	G45S	Total/NA	Water	SM 4500 SO4 E	
500-145553-11 MSD	G45S	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 433645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	Field Sampling	
500-145553-2	G30S	Total/NA	GW	Field Sampling	
500-145553-3	DUP	Total/NA	Water	Field Sampling	
500-145553-4	G44S	Total/NA	GW	Field Sampling	
500-145553-5	T03S	Total/NA	GW	Field Sampling	
500-145553-6	G48S	Total/NA	GW	Field Sampling	
500-145553-7	G47S	Total/NA	GW	Field Sampling	
500-145553-8	G46S	Total/NA	GW	Field Sampling	
500-145553-9	R08S	Total/NA	GW	Field Sampling	
500-145553-10	R32S	Total/NA	Water	Field Sampling	
500-145553-11	G45S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-432708/1-A
Matrix: Water
Analysis Batch: 432881

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/17/18 07:32	05/18/18 01:46	1

Lab Sample ID: LCS 500-432708/2-A
Matrix: Water
Analysis Batch: 432881

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.110		mg/L		110	80 - 120

Lab Sample ID: MB 500-432907/1-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/18/18 08:00	05/22/18 03:25	1

Lab Sample ID: LCS 500-432907/2-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.530		mg/L		106	80 - 120

Lab Sample ID: 500-145553-2 MS
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.021		0.500	0.539		mg/L		103	75 - 125

Lab Sample ID: 500-145553-2 MSD
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.021		0.500	0.541		mg/L		104	75 - 125	0	20

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.021		0.0216		mg/L		2	20

Lab Sample ID: MB 500-433098/1-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/19/18 11:04	05/21/18 23:50	1

Lab Sample ID: LCS 500-433098/2-A
Matrix: Water
Analysis Batch: 433345

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			0.500	0.533		mg/L		107	80 - 120		

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	0.023		0.500	0.534		mg/L		102	75 - 125		

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.023		0.500	0.540		mg/L		103	75 - 125	1	20

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433345

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.023		0.0231		mg/L		2	20

Lab Sample ID: MB 500-433467/1-A
Matrix: Water
Analysis Batch: 433755

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/22/18 15:09	05/23/18 15:32	1

Lab Sample ID: LCS 500-433467/2-A
Matrix: Water
Analysis Batch: 433755

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			0.500	0.524		mg/L		105	80 - 120		

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-432708/1-A
Matrix: Water
Analysis Batch: 432940

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/17/18 07:32	05/18/18 00:41	1
Barium	<0.0025		0.0025		mg/L		05/17/18 07:32	05/18/18 00:41	1
Boron	<0.050		0.050		mg/L		05/17/18 07:32	05/18/18 00:41	1
Calcium	<0.20		0.20		mg/L		05/17/18 07:32	05/18/18 00:41	1
Cobalt	<0.0010		0.0010		mg/L		05/17/18 07:32	05/18/18 00:41	1
Lead	<0.00050	^	0.00050		mg/L		05/17/18 07:32	05/18/18 00:41	1
Molybdenum	<0.0050		0.0050		mg/L		05/17/18 07:32	05/18/18 00:41	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-432708/1-A
Matrix: Water
Analysis Batch: 432940

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0025		0.0025		mg/L		05/17/18 07:32	05/18/18 00:41	1

Lab Sample ID: LCS 500-432708/2-A
Matrix: Water
Analysis Batch: 432940

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432708

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0945		mg/L		94	80 - 120
Barium	0.500	0.500		mg/L		100	80 - 120
Boron	1.00	0.979		mg/L		98	80 - 120
Calcium	10.0	11.5		mg/L		115	80 - 120
Cobalt	0.500	0.532		mg/L		106	80 - 120
Lead	0.100	0.111	^	mg/L		111	80 - 120
Molybdenum	1.00	0.964		mg/L		96	80 - 120
Selenium	0.100	0.0962		mg/L		96	80 - 120

Lab Sample ID: MB 500-432907/1-A
Matrix: Water
Analysis Batch: 433252

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/18/18 08:00	05/18/18 23:19	1
Barium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/18/18 23:19	1
Calcium	<0.20		0.20		mg/L		05/18/18 08:00	05/18/18 23:19	1
Cobalt	<0.0010		0.0010		mg/L		05/18/18 08:00	05/18/18 23:19	1
Lead	<0.00050		0.00050		mg/L		05/18/18 08:00	05/18/18 23:19	1
Molybdenum	<0.0050		0.0050		mg/L		05/18/18 08:00	05/18/18 23:19	1
Selenium	<0.0025		0.0025		mg/L		05/18/18 08:00	05/18/18 23:19	1

Lab Sample ID: MB 500-432907/1-A
Matrix: Water
Analysis Batch: 433393

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/18/18 08:00	05/21/18 19:53	1

Lab Sample ID: LCS 500-432907/2-A
Matrix: Water
Analysis Batch: 433252

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0997		mg/L		100	80 - 120
Barium	2.00	2.02		mg/L		101	80 - 120
Calcium	10.0	9.81		mg/L		98	80 - 120
Cobalt	0.500	0.501		mg/L		100	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.955		mg/L		96	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-432907/2-A
Matrix: Water
Analysis Batch: 433393

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: 500-145553-2 MS
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.011		0.100	0.132		mg/L		121	75 - 125
Barium	0.043		2.00	2.37		mg/L		116	75 - 125
Calcium	55		10.0	70.5	4	mg/L		154	75 - 125
Cobalt	<0.0010		0.500	0.510		mg/L		102	75 - 125
Lead	<0.00050		0.100	0.111		mg/L		111	75 - 125
Molybdenum	0.13		1.00	1.25		mg/L		113	75 - 125
Selenium	<0.0025	F1	0.100	0.0875		mg/L		86	75 - 125

Lab Sample ID: 500-145553-2 MS
Matrix: GW
Analysis Batch: 433393

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.7		1.00	6.81	4	mg/L		109	75 - 125

Lab Sample ID: 500-145553-2 MSD
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.011		0.100	0.117		mg/L		106	75 - 125	12	20
Barium	0.043		2.00	2.09		mg/L		102	75 - 125	13	20
Calcium	55		10.0	63.8	4	mg/L		87	75 - 125	10	20
Cobalt	<0.0010		0.500	0.467		mg/L		93	75 - 125	9	20
Lead	<0.00050		0.100	0.100		mg/L		100	75 - 125	10	20
Molybdenum	0.13		1.00	1.12		mg/L		99	75 - 125	11	20
Selenium	<0.0025	F1	0.100	0.0745	F1	mg/L		73	75 - 125	16	20

Lab Sample ID: 500-145553-2 MSD
Matrix: GW
Analysis Batch: 433393

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.7		1.00	6.95	4	mg/L		123	75 - 125	2	20

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.011		0.0115		mg/L		1	20
Barium	0.043		0.0432		mg/L		0.7	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433252

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	55		55.4		mg/L		0.6	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.13		0.131		mg/L		3	20
Selenium	<0.0025	F1	<0.0025		mg/L		NC	20

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433393

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 432907

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.7		5.77		mg/L		0.9	20

Lab Sample ID: MB 500-433098/1-A
Matrix: Water
Analysis Batch: 433604

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:19	1
Barium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:19	1
Calcium	<0.20		0.20		mg/L		05/19/18 11:04	05/22/18 19:19	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:04	05/22/18 19:19	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:04	05/22/18 19:19	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:04	05/22/18 19:19	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:04	05/22/18 19:19	1

Lab Sample ID: MB 500-433098/1-A
Matrix: Water
Analysis Batch: 433664

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/19/18 11:04	05/23/18 11:31	1

Lab Sample ID: LCS 500-433098/2-A
Matrix: Water
Analysis Batch: 433604

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	2.00	2.14		mg/L		107	80 - 120
Calcium	10.0	9.65		mg/L		97	80 - 120
Cobalt	0.500	0.524		mg/L		105	80 - 120
Lead	0.100	0.113		mg/L		113	80 - 120
Molybdenum	1.00	0.983		mg/L		98	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-433098/2-A
Matrix: Water
Analysis Batch: 433664

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.022		0.100	0.128		mg/L		106	75 - 125
Barium	0.023		2.00	2.10		mg/L		104	75 - 125
Calcium	53		10.0	62.4	4	mg/L		92	75 - 125
Cobalt	<0.0010		0.500	0.488		mg/L		98	75 - 125
Lead	<0.00050		0.100	0.105		mg/L		105	75 - 125
Molybdenum	0.49		1.00	1.49		mg/L		100	75 - 125
Selenium	<0.0025		0.100	0.0816		mg/L		82	75 - 125

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 433664

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.9		1.00	6.98	4	mg/L		106	75 - 125

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.022		0.100	0.127		mg/L		105	75 - 125	1	20
Barium	0.023		2.00	2.08		mg/L		103	75 - 125	1	20
Calcium	53		10.0	61.6	4	mg/L		84	75 - 125	1	20
Cobalt	<0.0010		0.500	0.485		mg/L		97	75 - 125	1	20
Lead	<0.00050		0.100	0.104		mg/L		104	75 - 125	1	20
Molybdenum	0.49		1.00	1.48		mg/L		99	75 - 125	1	20
Selenium	<0.0025		0.100	0.0824		mg/L		82	75 - 125	1	20

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 433664

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.9		1.00	6.55	4	mg/L		64	75 - 125	6	20

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.022		0.0227		mg/L		3	20
Barium	0.023		0.0231		mg/L		0.5	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433604

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Calcium	53		54.6		mg/L		3	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.49		0.501		mg/L		2	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 433664

Client Sample ID: G48S
Prep Type: Total Recoverable
Prep Batch: 433098

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.9		5.71		mg/L		4	20

Lab Sample ID: MB 500-433467/1-A
Matrix: Water
Analysis Batch: 434570

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:32	1
Barium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:32	1
Boron	<0.050		0.050		mg/L		05/22/18 15:09	05/29/18 16:32	1
Calcium	<0.20		0.20		mg/L		05/22/18 15:09	05/29/18 16:32	1
Cobalt	<0.0010		0.0010		mg/L		05/22/18 15:09	05/29/18 16:32	1
Lead	<0.00050		0.00050		mg/L		05/22/18 15:09	05/29/18 16:32	1
Molybdenum	<0.0050		0.0050		mg/L		05/22/18 15:09	05/29/18 16:32	1
Selenium	<0.0025		0.0025		mg/L		05/22/18 15:09	05/29/18 16:32	1

Lab Sample ID: LCS 500-433467/2-A
Matrix: Water
Analysis Batch: 434570

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0959		mg/L		96	80 - 120
Barium	2.00	2.01		mg/L		101	80 - 120
Boron	1.00	0.944		mg/L		94	80 - 120
Calcium	10.0	9.35		mg/L		94	80 - 120
Cobalt	0.500	0.503		mg/L		101	80 - 120
Lead	0.100	0.106		mg/L		106	80 - 120
Molybdenum	1.00	0.947		mg/L		95	80 - 120
Selenium	0.100	0.0979		mg/L		98	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-432683/1
Matrix: Water
Analysis Batch: 432683

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/17/18 03:42	1

Lab Sample ID: LCS 500-432683/2
Matrix: Water
Analysis Batch: 432683

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	298		mg/L		119	80 - 120

Lab Sample ID: 500-145553-1 MS
Matrix: GW
Analysis Batch: 432683

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	410		250	710		mg/L		118	75 - 125

Lab Sample ID: 500-145553-1 DU
Matrix: GW
Analysis Batch: 432683

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	410		434		mg/L		5	5

Lab Sample ID: MB 500-433338/1
Matrix: Water
Analysis Batch: 433338

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			05/22/18 04:12	1

Lab Sample ID: LCS 500-433338/2
Matrix: Water
Analysis Batch: 433338

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	290		mg/L		116	80 - 120

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 433338

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1130		mg/L		1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-433163/4
Matrix: Water
Analysis Batch: 433163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/20/18 21:12	1

Lab Sample ID: LCS 500-433163/5
Matrix: Water
Analysis Batch: 433163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.6		mg/L		101	85 - 115

Lab Sample ID: 500-145553-4 MS
Matrix: GW
Analysis Batch: 433163

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	35		50.0	78.4		mg/L		86	75 - 125

Lab Sample ID: 500-145553-4 MSD
Matrix: GW
Analysis Batch: 433163

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	35		50.0	78.0		mg/L		85	75 - 125	1	20

Lab Sample ID: MB 500-434299/12
Matrix: Water
Analysis Batch: 434299

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			05/28/18 17:42	1

Lab Sample ID: LCS 500-434299/13
Matrix: Water
Analysis Batch: 434299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.1		mg/L		100	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-434275/3
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/26/18 14:23	1

Lab Sample ID: MB 500-434275/31
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			05/26/18 16:00	1

Lab Sample ID: LCS 500-434275/32
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.5		mg/L		105	80 - 120

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-434275/4
Matrix: Water
Analysis Batch: 434275

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.4		mg/L		104	80 - 120

Lab Sample ID: 500-145553-6 MS
Matrix: GW
Analysis Batch: 434275

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.92		5.00	6.09		mg/L		103	75 - 125

Lab Sample ID: 500-145553-6 MSD
Matrix: GW
Analysis Batch: 434275

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.92		5.00	6.00		mg/L		102	75 - 125	1	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-435221/3
Matrix: Water
Analysis Batch: 435221

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/04/18 12:49	1

Lab Sample ID: LCS 500-435221/4
Matrix: Water
Analysis Batch: 435221

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.6		mg/L		98	80 - 120

Lab Sample ID: MB 500-435373/3
Matrix: Water
Analysis Batch: 435373

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/05/18 09:04	1

Lab Sample ID: LCS 500-435373/4
Matrix: Water
Analysis Batch: 435373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.8		mg/L		104	80 - 120

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 500-145553-4 MS
Matrix: GW
Analysis Batch: 435373

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	96		400	473		mg/L		94	75 - 125

Lab Sample ID: 500-145553-4 MSD
Matrix: GW
Analysis Batch: 435373

Client Sample ID: G44S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	96		400	450		mg/L		89	75 - 125	5	20

Lab Sample ID: MB 500-435378/3
Matrix: Water
Analysis Batch: 435378

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/05/18 10:15	1

Lab Sample ID: LCS 500-435378/4
Matrix: Water
Analysis Batch: 435378

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.5		mg/L		97	80 - 120

Lab Sample ID: 500-145553-11 MS
Matrix: Water
Analysis Batch: 435378

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	230		400	599		mg/L		93	75 - 125

Lab Sample ID: 500-145553-11 MSD
Matrix: Water
Analysis Batch: 435378

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	230		400	630		mg/L		101	75 - 125	5	20

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Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.4

Client	Client Project #
Midwest Generation EME LLC	
Project Name	
CCR Joliet #9 - 2Q18 GW	
Project Location/State	Lab Project #
Joliet, IL	
Sampler	Lab PM
Noe L., Rob P.	Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226/228	Parameter: Cl, Fl, SO4, TDS	Parameter: Total Metals	Comments
1		G20S	05/16/18	0945	4	W		1	1	1	

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TBL	05/16/18	1510	[signature]	TALHT	05/16/18	1570
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-6/7/2018

6/5/2018

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Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

500-145553 COC

Chain of Custody Record

Lab Job #: 500-145553
Chain of Custody Number:
Page _____ of _____
Temperature °C of Cooler: 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Nor L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
2		G30S	05/17/18	0913	5	W		1	1	1							
3		DUP	05/17/18	0913	5	W		1	1	1							DUP of G30S
4		G44S	05/17/18	1234	5	W		1	1	1							
5		T03S	05/17/18	1355	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
SL	TAL	05/17/18	1535		TA	05/17/18	1535

Lab Courier
Shipped
Hand Delivered ✓

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
6		G48S	05/18/18	0845	5	W		-	-	-							
7		G47S	05/18/18	1007	5	W		-	-	-							
8		G46S	05/18/18	1220	5	W		-	-	-							
9		R08S	05/18/18	1320	5	W		-	-	-							

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/18/18	1445	[signature]	TALHF	05/18/18	1445
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-145553 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 5.4

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
10		R32S	05/21/18	1004	5	W		1	1	1							
11		G45S	05/21/18	1115	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/21/18	1235	[signature]	TA-CHI	5/21/18	1235
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: DA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124 (0911)

6/5/2018

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-1

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging: Bladder Pump — Dedicated (Y/N)
Sampling: Bladder Pump — Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/16/18 Start Purge: 0925 (2400 Hr. Clock) End Purge: 0945

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 48.83 (ft.)
Ground Water Elev. 531.50 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.07	7.06	7.06	(std.)
SC	603	601	601	(umhos/cm)
Temp.	24.70	24.68	24.68	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 71°F, Sunny, NE winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 48.83 - 2.78 = 46.05 (ft.)
Levels were taken on 05/16/18 @ 0915

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/17/18 Start Purge: 0855 (2400 Hr. Clock) End Purge: 0913

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.40 (ft./msl)
Water Level 1.62 (ft.)
Ground Water Elev. 522.78 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.75	7.77	7.77	(std.)
SC	1490	1490	1490	(umhos/cm)
Temp.	12.90	12.98	12.98	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 75°F, Sunny, NE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.62 - 2.31 = -0.69 (ft.)
Levels were taken on 05/17/18 @ 0845

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter	2.0 (inches)		1st	2nd	*Final*
Stick Up	2.31 (ft)	pH			(std.)
Ref. Measuring Pt.	TIC	SC			(umhos/cm)
Well Elevation	*524.40 (ft./msl)	Temp.			(°C)
Water Level	(ft.)	Well Stabilization / Recharge Grid			
Ground Water Elev.	(ft./msl)				
Well Bottom Elevation	*462.58 (ft./msl)				

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. = _____

Levels were taken on _____ @ _____.

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/17/18 Start Purge: 1220 (2400 Hr. Clock) End Purge: 1234

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.45

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.17 (ft.)
Ground Water Elev. 506.52 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.03	7.02	7.02	(std.)
SC	856	855	855	(umhos/cm)
Temp.	15.11	15.12	15.12	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 79°F, Sunny, NE winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.17 - 2.18 = 77.99 (ft.)
Levels were taken on 05/17/18 @ 1215.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145963-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/17/18 Start Purge: 1340 (2400 Hr. Clock) End Purge: 1355

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.65 (ft./msl)

Water Level 134.42 (ft.)

Ground Water Elev. 495.23 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.06	7.07	7.07	(std.)
SC	1035	1041	1041	(umhos/cm)
Temp.	14.69	14.72	14.72	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 79°F, Sunny, NE winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 134.42 - 3.08 = 131.34

Levels were taken on 05/17/18 @ 1330.

* Total Depth = 172.95

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 0825 (2400 Hr. Clock) End Purge: 0845

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (Inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.77 (ft./msl)
Water Level 100.74 (ft.)
Ground Water Elev. 520.03 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	7.78	7.79	7.79	(std.)
SC	1404	1407	1407	(umhos/cm)
Temp.	12.68	12.68	12.68	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 65°F, Fair, E winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 100.74 - 2.45 = 98.29 (ft.)
Levels were taken on 05/18/18 @ 0815.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 0950 (2400 Hr. Clock) End Purge: 1007

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.66

MEASUREMENTS

Well Diameter 4.0 (Inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.32 (ft./msl)
Water Level 93.51 (ft.)
Ground Water Elev. 518.81 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	10.42	10.42	10.42	(std.)
SC	2,440	2,430	2,430	(umhos/cm)
Temp.	15.90	15.97	15.97	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 68°F, Sunny, NE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 93.51 - 2.50 = 91.01 (ft.)
Levels were taken on 05/18/18 @ 0945.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-8

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging: Bladder Pump — Dedicated (Y/N)
Sampling: Bladder Pump — Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 1200 (2400 Hr. Clock) End Purge: 1220

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.70 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.32 (ft./msl)
Water Level 95.59 (ft.)
Ground Water Elev. 505.73 (ft./msl)
Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.67	7.66	7.66	(std.)
SC	1200	1201	1201	(umhos/cm)
Temp.	14.48	14.44	14.44	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 73°F, Sunny, NE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 95.59 - 2.70 = 92.89 (ft.)
Levels were taken on 05/18/18 @ 1155

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145853-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/18/18 Start Purge: 1305 (2400 Hr. Clock) End Purge: 1320

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.65 (ft./msl)
Water Level 65.31 (ft.)
Ground Water Elev. 513.34 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.23	8.25	8.25	(std.)
SC	960	965	965	(umhos/cm)
Temp.	14.42	14.41	14.41	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 73°F, Fair, NE winds @ 10-15 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 65.31 - 2.55 = 62.76 (ft.)
Levels were taken on 05/18/18 @ 1255.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/21/18 Start Purge: 0945 (2400 Hr. Clock) End Purge: 1004

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.81 (ft./msl)
Water Level 20.26 (ft.)
Ground Water Elev. 516.55 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.12	7.13	7.13	(std.)
SC	957	962	962	(umhos/cm)
Temp.	11.39	11.46	11.46	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 60°F, Rain Shower, SE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 20.26 - 2.03 = 18.23 (ft)
Levels were taken on 05/21/18 @ 0930

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-145553-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 05/21/18 Start Purge: 1100 (2400 Hr. Clock) End Purge: 1115

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.97

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 68.50 (ft.)
Ground Water Elev. 534.81 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.01	7.00	7.00	(std.)
SC	1164	1,175	1,175	(umhos/cm)
Temp.	13.48	13.48	13.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 63° F, Rain, E wind 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 68.50 - 2.97 = 65.53 (ft.)
Levels were taken on 05/21/18 @ 1050

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-1

Login Number: 145553
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4,2.6c, 3.8,5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: G20S

Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432708	05/17/18 07:32	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	432881	05/18/18 01:55	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432708	05/17/18 07:32	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	432940	05/18/18 01:51	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	432683	05/17/18 04:15	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	433163	05/20/18 21:14	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	435221		CLB	TAL CHI
					(Start)	06/04/18 13:08		
					(End)	06/04/18 13:09		
Total/NA	Analysis	Field Sampling		1	433645	05/16/18 09:45	JVB	TAL CHI

Client Sample ID: G30S

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 03:33	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	433393	05/21/18 20:08	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:45	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435221		CLB	TAL CHI
					(Start)	06/04/18 13:09		
					(End)	06/04/18 13:10		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 09:13	JVB	TAL CHI

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 04:06	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:29	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	433393	05/21/18 20:34	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:48	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435221		CLB	TAL CHI
					(Start)	06/04/18 13:10		
					(End)	06/04/18 13:11		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 09:13	JVB	TAL CHI

Client Sample ID: G44S

Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 04:10	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:32	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		5	433393	05/21/18 20:38	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:53	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	433163	05/20/18 21:17	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:51	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435373		CLB	TAL CHI
					(Start)	06/05/18 09:16		
					(End)	06/05/18 09:17		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 12:34	JVB	TAL CHI

Client Sample ID: T03S

Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 04:14	PJ1	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	433252	05/19/18 00:36	FXG	TAL CHI
Total Recoverable	Prep	3005A			432907	05/18/18 08:00	SAH	TAL CHI
Total Recoverable	Analysis	6020A		5	433393	05/21/18 20:42	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:55	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:19	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:54	EAT	TAL CHI

Client Sample ID: T03S

Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		10	435373		CLB	TAL CHI
					(Start)	06/05/18 09:19		
					(End)	06/05/18 09:20		
Total/NA	Analysis	Field Sampling		1	433645	05/17/18 13:55	JVB	TAL CHI

Client Sample ID: G48S

Date Collected: 05/18/18 08:45
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-6

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/21/18 23:58	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 11:38	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 04:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:19	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435373		CLB	TAL CHI
					(Start)	06/05/18 09:20		
					(End)	06/05/18 09:21		
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 08:45	JVB	TAL CHI

Client Sample ID: G47S

Date Collected: 05/18/18 10:07
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-7

Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 00:18	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:45	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 11:57	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:01	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	435373		CLB	TAL CHI
					(Start)	06/05/18 09:21		
					(End)	06/05/18 09:22		
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 10:07	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-145553-8

Date Collected: 05/18/18 12:20

Matrix: GW

Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 00:22	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 12:01	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:03	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:27	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435373	(Start) 06/05/18 09:22 (End) 06/05/18 09:23	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 12:20	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-145553-9

Date Collected: 05/18/18 13:20

Matrix: GW

Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433345	05/22/18 00:26	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 19:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			433098	05/19/18 11:04	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433664	05/23/18 12:05	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	433163	05/20/18 22:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435373	(Start) 06/05/18 09:23 (End) 06/05/18 09:24	CLB	TAL CHI
Total/NA	Analysis	Field Sampling		1	433645	05/18/18 13:20	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-145553-10

Date Collected: 05/21/18 10:04

Matrix: Water

Date Received: 05/21/18 12:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433755	05/23/18 15:40	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	434570	05/29/18 16:40	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:08	CLB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		5	434299	05/28/18 18:28	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:33	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435378		CLB	TAL CHI
					(Start)	06/05/18 10:17		
					(End)	06/05/18 10:18		
Total/NA	Analysis	Field Sampling		1	433645	05/21/18 10:04	JVB	TAL CHI

Client Sample ID: G45S

Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433755	05/23/18 15:44	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433467	05/22/18 15:09	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	434570	05/29/18 16:45	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	433338	05/22/18 05:11	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434299	05/28/18 18:28	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 16:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435378		CLB	TAL CHI
					(Start)	06/05/18 10:18		
					(End)	06/05/18 10:19		
Total/NA	Analysis	Field Sampling		1	433645	05/21/18 11:15	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-145553-2
Client Project/Site: Joliet #9 CCR - 2Q18 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
7/6/2018 2:06:15 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-145553-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-145553-2

Comments
No additional comments.

Receipt
The samples were received on 5/16/2018 3:10 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 2.6º C, 3.4º C, 3.8º C and 5.4º C.

RAD
Method(s) PrecSep_0: Radium-228 Prep Batch 160-367072:
The following sample was prepared at a reduced aliquot: G47S (500-145553-7). Samples 240-95601-1, 240-95677-1, and 240-95679-1 had limited volume. Sample 500-145553-7 is dark yellow and has a strong sulfur smell.

Method(s) PrecSep-21: Radium Prep Batch 160-367066:
The following sample was prepared at a reduced aliquot: G47S (500-145553-7). Samples 240-95601-1, 240-95677-1, 240-95679-1, and 160-28440-1 had limited volume. Sample 500-145553-7 is dark yellow and has a strong sulfur smell. Samples 160-28441-1 and 160-28442-1 were yellow and had sediment.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145553-1	G20S	GW	05/16/18 09:45	05/16/18 15:10
500-145553-2	G30S	GW	05/17/18 09:13	05/17/18 15:35
500-145553-3	DUP	Water	05/17/18 09:13	05/17/18 15:35
500-145553-4	G44S	GW	05/17/18 12:34	05/17/18 15:35
500-145553-5	T03S	GW	05/17/18 13:55	05/17/18 15:35
500-145553-6	G48S	GW	05/18/18 08:45	05/18/18 14:45
500-145553-7	G47S	GW	05/18/18 10:07	05/18/18 14:45
500-145553-8	G46S	GW	05/18/18 12:20	05/18/18 14:45
500-145553-9	R08S	GW	05/18/18 13:20	05/18/18 14:45
500-145553-10	R32S	Water	05/21/18 10:04	05/21/18 12:35
500-145553-11	G45S	Water	05/21/18 11:15	05/21/18 12:35

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G20S
Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.21		0.179	0.210	1.00	0.0899	pCi/L	05/21/18 14:42	06/18/18 18:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/21/18 14:42*	*06/18/18 18:25*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.907		0.273	0.285	1.00	0.346	pCi/L	05/21/18 15:44	05/31/18 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.7*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*
Y Carrier	*92.7*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.12		0.326	0.354	5.00	0.346	pCi/L		06/23/18 19:42	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G30S

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.659		0.129	0.142	1.00	0.0754	pCi/L	05/21/18 14:42	06/18/18 18:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/21/18 14:42*	*06/18/18 18:26*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.909		0.268	0.280	1.00	0.346	pCi/L	05/21/18 15:44	05/31/18 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*
Y Carrier	*96.1*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.57		0.297	0.314	5.00	0.346	pCi/L		06/23/18 19:42	1

Client Sample ID: DUP

Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.796		0.149	0.166	1.00	0.0898	pCi/L	05/21/18 14:42	06/18/18 19:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:07*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.736		0.254	0.263	1.00	0.340	pCi/L	05/21/18 15:44	05/31/18 14:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*
Y Carrier	*93.5*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.53		0.294	0.311	5.00	0.340	pCi/L		06/23/18 19:42	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G44S
Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.435**		0.114	0.120	1.00	0.0862	pCi/L	05/21/18 14:42	06/18/18 19:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:07*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.279	U	0.244	0.245	1.00	0.390	pCi/L	05/21/18 15:44	05/31/18 14:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*
Y Carrier	*92.0*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.714**		0.269	0.273	5.00	0.390	pCi/L		06/23/18 19:42	1

Client Sample ID: T03S

Date Collected: 05/17/18 13:55
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-5

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.879**		0.170	0.187	1.00	0.0983	pCi/L	05/21/18 14:42	06/18/18 19:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:08*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.373	U	0.246	0.249	1.00	0.380	pCi/L	05/21/18 15:44	05/31/18 14:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*
Y Carrier	*91.6*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.25**		0.299	0.311	5.00	0.380	pCi/L		06/23/18 19:42	1

Client Sample ID: G48S

Date Collected: 05/18/18 08:45
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-6

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.547		0.121	0.131	1.00	0.0807	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.415		0.237	0.240	1.00	0.359	pCi/L	05/22/18 16:29	06/01/18 15:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*
Y Carrier	*92.0*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.962		0.266	0.273	5.00	0.359	pCi/L		06/23/18 19:42	1

Client Sample ID: G47S

Date Collected: 05/18/18 10:07
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-7

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.452		0.134	0.140	1.00	0.121	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.561		0.334	0.338	1.00	0.510	pCi/L	05/22/18 16:29	06/01/18 15:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.2*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*
Y Carrier	*87.1*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.360	0.366	5.00	0.510	pCi/L		06/23/18 19:42	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G46S
Date Collected: 05/18/18 12:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-8
Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.478		0.114	0.122	1.00	0.0856	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.587		0.254	0.259	1.00	0.363	pCi/L	05/22/18 16:29	06/01/18 15:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.6*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*
Y Carrier	*87.1*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:23*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.07		0.278	0.286	5.00	0.363	pCi/L		06/23/18 19:42	1

Client Sample ID: R08S

Date Collected: 05/18/18 13:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-9

Matrix: GW

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.739		0.141	0.156	1.00	0.0882	pCi/L	05/22/18 15:55	06/19/18 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*05/22/18 15:55*	*06/19/18 12:05*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.479		0.226	0.230	1.00	0.326	pCi/L	05/22/18 16:29	06/01/18 15:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.3*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:24*	*1*
Y Carrier	*91.2*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.22		0.266	0.278	5.00	0.326	pCi/L		06/23/18 19:42	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: R32S
Date Collected: 05/21/18 10:04
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-10
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.42		0.324	0.348	1.00	0.216	pCi/L	05/29/18 10:36	06/20/18 05:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/29/18 10:36*	*06/20/18 05:52*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.795		0.309	0.317	1.00	0.440	pCi/L	05/29/18 11:26	06/19/18 16:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*
Y Carrier	*89.3*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.22		0.448	0.471	5.00	0.440	pCi/L		06/23/18 19:42	1

Client Sample ID: G45S

Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.77		0.356	0.390	1.00	0.219	pCi/L	05/29/18 10:36	06/20/18 05:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/29/18 10:36*	*06/20/18 05:52*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.602		0.235	0.242	1.00	0.320	pCi/L	05/29/18 11:26	06/19/18 16:14	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*
Y Carrier	*93.1*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:14*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.37		0.427	0.459	5.00	0.320	pCi/L		06/23/18 19:42	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 366803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	PrecSep-21	
500-145553-2	G30S	Total/NA	GW	PrecSep-21	
500-145553-3	DUP	Total/NA	Water	PrecSep-21	
500-145553-4	G44S	Total/NA	GW	PrecSep-21	
500-145553-5	T03S	Total/NA	GW	PrecSep-21	
MB 160-366803/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-366803/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-145553-2 DU	G30S	Total/NA	GW	PrecSep-21	

Prep Batch: 366811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-1	G20S	Total/NA	GW	PrecSep_0	
500-145553-2	G30S	Total/NA	GW	PrecSep_0	
500-145553-3	DUP	Total/NA	Water	PrecSep_0	
500-145553-4	G44S	Total/NA	GW	PrecSep_0	
500-145553-5	T03S	Total/NA	GW	PrecSep_0	
MB 160-366811/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-366811/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-145553-2 DU	G30S	Total/NA	GW	PrecSep_0	

Prep Batch: 367066

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total/NA	GW	PrecSep-21	
500-145553-7	G47S	Total/NA	GW	PrecSep-21	
500-145553-8	G46S	Total/NA	GW	PrecSep-21	
500-145553-9	R08S	Total/NA	GW	PrecSep-21	
MB 160-367066/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-367066/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-145553-6 DU	G48S	Total/NA	GW	PrecSep-21	

Prep Batch: 367072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-6	G48S	Total/NA	GW	PrecSep_0	
500-145553-7	G47S	Total/NA	GW	PrecSep_0	
500-145553-8	G46S	Total/NA	GW	PrecSep_0	
500-145553-9	R08S	Total/NA	GW	PrecSep_0	
MB 160-367072/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-367072/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-145553-6 DU	G48S	Total/NA	GW	PrecSep_0	

Prep Batch: 367824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	PrecSep-21	
500-145553-11	G45S	Total/NA	Water	PrecSep-21	
MB 160-367824/21-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-367824/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-145553-11 DU	G45S	Total/NA	Water	PrecSep-21	

Prep Batch: 367837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-10	R32S	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 367837 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145553-11	G45S	Total/NA	Water	PrecSep_0	
MB 160-367837/21-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-367837/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-145553-11 DU	G45S	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-366803/23-A
Matrix: Water
Analysis Batch: 370841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 366803

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03636	U	0.0475	0.0476	1.00	0.0792	pCi/L	05/21/18 14:42	06/18/18 19:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/21/18 14:42*	*06/18/18 19:08*	*1*

Lab Sample ID: LCS 160-366803/1-A
Matrix: Water
Analysis Batch: 371107

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366803

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.8	10.86		1.10	1.00	0.0819	pCi/L	92	68 - 137		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 370841

Client Sample ID: G30S
Prep Type: Total/NA
Prep Batch: 366803

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.659			0.7123		0.155	1.00	0.0874	pCi/L			0.18	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*99.1*		*40 - 110*

Lab Sample ID: MB 160-367066/23-A
Matrix: Water
Analysis Batch: 371130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367066

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.04352	U	0.0427	0.0429	1.00	0.0638	pCi/L	05/22/18 15:55	06/19/18 13:49	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.2*		*40 - 110*	*05/22/18 15:55*	*06/19/18 13:49*	*1*

Lab Sample ID: LCS 160-367066/1-A
Matrix: Water
Analysis Batch: 371130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367066

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.8	10.64		1.09	1.00	0.0820	pCi/L	90	68 - 137		

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-367066/1-A
Matrix: Water
Analysis Batch: 371130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367066

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.2		40 - 110

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 371132

Client Sample ID: G48S
Prep Type: Total/NA
Prep Batch: 367066

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.547			0.6919		0.152	1.00	0.0949	pCi/L			0.51	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	93.5		40 - 110

Lab Sample ID: MB 160-367824/21-A
Matrix: Water
Analysis Batch: 371317

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367824

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.006720	U	0.112	0.112	1.00	0.237	pCi/L	05/29/18 10:36	06/20/18 05:53	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110	05/29/18 10:36	06/20/18 05:53	1

Lab Sample ID: LCS 160-367824/1-A
Matrix: Water
Analysis Batch: 371315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367824

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.8	10.81		1.31	1.00	0.236	pCi/L	92	68 - 137		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	110		40 - 110

Lab Sample ID: 500-145553-11 DU
Matrix: Water
Analysis Batch: 371317

Client Sample ID: G45S
Prep Type: Total/NA
Prep Batch: 367824

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.77			1.506		0.368	1.00	0.259	pCi/L			0.34	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	101		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-366811/23-A
Matrix: Water
Analysis Batch: 368174

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 366811

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5847		0.239	0.245	1.00	0.335	pCi/L	05/21/18 15:44	05/31/18 14:47	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:47*	*1*
Y Carrier	*93.1*		*40 - 110*	*05/21/18 15:44*	*05/31/18 14:47*	*1*

Lab Sample ID: LCS 160-366811/1-A
Matrix: Water
Analysis Batch: 368163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 366811

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.27	9.362		1.07	1.00	0.347	pCi/L	113	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*
Y Carrier	*96.1*		*40 - 110*

Lab Sample ID: 500-145553-2 DU
Matrix: GW
Analysis Batch: 368163

Client Sample ID: G30S
Prep Type: Total/NA
Prep Batch: 366811

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.909			0.8519		0.275	1.00	0.342	pCi/L			0.10	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*99.1*		*40 - 110*
Y Carrier	*94.2*		*40 - 110*

Lab Sample ID: MB 160-367072/23-A
Matrix: Water
Analysis Batch: 368339

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367072

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4396		0.253	0.257	1.00	0.385	pCi/L	05/22/18 16:29	06/01/18 15:20	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.2*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:20*	*1*
Y Carrier	*86.4*		*40 - 110*	*05/22/18 16:29*	*06/01/18 15:20*	*1*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-367072/1-A
Matrix: Water
Analysis Batch: 368359

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367072

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.26	9.930		1.13	1.00	0.342	pCi/L	120	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.2*		*40 - 110*
Y Carrier	*87.9*		*40 - 110*

Lab Sample ID: 500-145553-6 DU
Matrix: GW
Analysis Batch: 368359

Client Sample ID: G48S
Prep Type: Total/NA
Prep Batch: 367072

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.415			0.5582		0.245	1.00	0.336	pCi/L			0.29	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*93.5*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

Lab Sample ID: MB 160-367837/21-A
Matrix: Water
Analysis Batch: 371107

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 367837

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.08757	U	0.220	0.220	1.00	0.406	pCi/L	05/29/18 11:26	06/19/18 16:08	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:08*	*1*
Y Carrier	*92.7*		*40 - 110*	*05/29/18 11:26*	*06/19/18 16:08*	*1*

Lab Sample ID: LCS 160-367837/1-A
Matrix: Water
Analysis Batch: 371132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367837

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.21	8.771		1.02	1.00	0.353	pCi/L	107	56 - 140		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*110*		*40 - 110*
Y Carrier	*89.7*		*40 - 110*

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 500-145553-11 DU
Matrix: Water
Analysis Batch: 371132

Client Sample ID: G45S
Prep Type: Total/NA
Prep Batch: 367837

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.602			0.5148		0.245	1.00	0.344	pCi/L			0.18	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*101*		*40 - 110*
Y Carrier	*92.3*		*40 - 110*

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.4

Client	Client Project #	Preservative										
Midwest Generation EME LLC												
Project Name		Parameter	Radium 226/228	Cl, Fl, SO4, TDS	Total Metals							
CCR Joliet #9 - 2Q18 GW												
Project Location/State	Lab Project #											
Joliet, IL												
Sampler	Lab PM											
Noe L., Rob P.	Eric Lang											

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix									Comments
1		G20S	05/16/18	0945	4	W	1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
DJ	TBL	05/16/18	1510	Chris Sanoj	TALHT	05/16/18	1570
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

500-145553 COC

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Nor L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, Fl, SO4, TDS							
2		G30S	05/17/18	0913	5	W		1	1	1							
3		DUP	05/17/18	0913	5	W		1	1	1							DUP of G30S
4		G44S	05/17/18	1234	5	W		1	1	1							
5		T03S	05/17/18	1355	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
SL	TAL	05/17/18	1535		TA	05/17/18	1535
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered ✓

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (3/99)

7/6/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: CCR Joliet #9 - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
6		G48S	05/18/18	0845	5	W		-	-	-							
7		G47S	05/18/18	1007	5	W		-	-	-							
8		G46S	05/18/18	1220	5	W		-	-	-							
9		R08S	05/18/18	1320	5	W		-	-	-							

500-145553 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/18/18	1445	[signature]	TALHF	05/18/18	1445
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124 (0911)

7/6/2018

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-145553 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-145553

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 5.4

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2018 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							Comments
							Parameter	Radium 226/228	Total Metals	Cl, F, SO4, TDS							
10		R32S	05/21/18	1004	5	W		1	1	1							
11		G45S	05/21/18	1115	5	W		1	1	1							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	05/21/18	1235	[signature]	TA-CHI	5/21/18	1235
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: DA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104596.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-2
Address: 13715 Rider Trail North,	Due Date Requested: 5/31/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-145553-1)	5/16/18	09:45 Central		Water			X	X	X	2	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	05/16/18 1630	TA	[signature]	05-17-18 0930	TASTL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104664.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/29/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G48S (500-145553-6)	5/18/18	08:45 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G47S (500-145553-7)	5/18/18	10:07 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G46S (500-145553-8)	5/18/18	12:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-145553-9)	5/18/18	13:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	05/18/18 1630	TA		05-19-18 1010	TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104664.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/29/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G30S (500-145553-2)	5/17/18	09:13 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-145553-3)	5/17/18	09:13 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-145553-4)	5/17/18	12:34 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-145553-5)	5/17/18	13:55 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	05/18/18 1630	TA	[signature]	05-19-18 1010	TA STL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Phone (708) 534-5200 Fax (708) 534-5211

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-104743.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-145553-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/29/2018			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
R32S (500-145553-10)	5/21/18	10:04 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-145553-11)	5/21/18	11:15 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	5/21/18 1315	TA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4,2.6c, 3.8,5.4
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 2
Creator: Press, Nicholas B

List Source: TestAmerica St. Louis
List Creation: 05/18/18 09:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 3
Creator: Press, Nicholas B

List Source: TestAmerica St. Louis
List Creation: 05/19/18 12:15 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145553-2

Login Number: 145553
List Number: 4
Creator: Press, Nicholas B

List Source: TestAmerica St. Louis
List Creation: 05/22/18 11:23 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: G20S
Date Collected: 05/16/18 09:45
Date Received: 05/16/18 15:10

Lab Sample ID: 500-145553-1
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370840	06/18/18 18:25	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G30S
Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-2
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370840	06/18/18 18:26	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: DUP
Date Collected: 05/17/18 09:13
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370841	06/18/18 19:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:51	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G44S
Date Collected: 05/17/18 12:34
Date Received: 05/17/18 15:35

Lab Sample ID: 500-145553-4
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370841	06/18/18 19:07	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:52	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: T03S — Lab Sample ID: 500-145553-5

Date Collected: 05/17/18 13:55 — **Matrix: GW**
Date Received: 05/17/18 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			366803	05/21/18 14:42	TJT	TAL SL
Total/NA	Analysis	903.0		1	370841	06/18/18 19:08	ALS	TAL SL
Total/NA	Prep	PrecSep_0			366811	05/21/18 15:44	TJT	TAL SL
Total/NA	Analysis	904.0		1	368163	05/31/18 14:52	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G48S — Lab Sample ID: 500-145553-6

Date Collected: 05/18/18 08:45 — **Matrix: GW**
Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G47S — Lab Sample ID: 500-145553-7

Date Collected: 05/18/18 10:07 — **Matrix: GW**
Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G46S — Lab Sample ID: 500-145553-8

Date Collected: 05/18/18 12:20 — **Matrix: GW**
Date Received: 05/18/18 14:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:23	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Client Sample ID: R08S
Date Collected: 05/18/18 13:20
Date Received: 05/18/18 14:45

Lab Sample ID: 500-145553-9
Matrix: GW

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367066	05/22/18 15:55	CMM	TAL SL
Total/NA	Analysis	903.0		1	371132	06/19/18 12:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367072	05/22/18 16:29	CMM	TAL SL
Total/NA	Analysis	904.0		1	368359	06/01/18 15:24	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: R32S
Date Collected: 05/21/18 10:04
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367824	05/29/18 10:36	TJT	TAL SL
Total/NA	Analysis	903.0		1	371317	06/20/18 05:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367837	05/29/18 11:26	TJT	TAL SL
Total/NA	Analysis	904.0		1	371132	06/19/18 16:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: G45S
Date Collected: 05/21/18 11:15
Date Received: 05/21/18 12:35

Lab Sample ID: 500-145553-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367824	05/29/18 10:36	TJT	TAL SL
Total/NA	Analysis	903.0		1	371317	06/20/18 05:52	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367837	05/29/18 11:26	TJT	TAL SL
Total/NA	Analysis	904.0		1	371132	06/19/18 16:14	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Laboratory References:

TAL SL = TestAmerica St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)						
500-145553-1	G20S	94.7						
500-145553-2	G30S	100						
500-145553-2 DU	G30S	99.1						
500-145553-4	G44S	92.3						
500-145553-5	T03S	93.5						
500-145553-6	G48S	95.0						
500-145553-6 DU	G48S	93.5						
500-145553-7	G47S	96.2						
500-145553-8	G46S	97.6						
500-145553-9	R08S	97.3						

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)						
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)						
500-145553-3	DUP	97.9						
500-145553-10	R32S	101						
500-145553-11	G45S	104						
500-145553-11 DU	G45S	101						
LCS 160-366803/1-A	Lab Control Sample	95.3						
LCS 160-367066/1-A	Lab Control Sample	96.2						
LCS 160-367824/1-A	Lab Control Sample	110						
MB 160-366803/23-A	Method Blank	101						
MB 160-367066/23-A	Method Blank	98.2						
MB 160-367824/21-A	Method Blank	103						

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: GW **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)							
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)	Y Carrier (40-110)						
500-145553-1	G20S	94.7	92.7						
500-145553-2	G30S	100	96.1						
500-145553-2 DU	G30S	99.1	94.2						
500-145553-4	G44S	92.3	92.0						
500-145553-5	T03S	93.5	91.6						
500-145553-6	G48S	95.0	92.0						
500-145553-6 DU	G48S	93.5	89.7						
500-145553-7	G47S	96.2	87.1						
500-145553-8	G46S	97.6	87.1						
500-145553-9	R08S	97.3	91.2						

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 2Q18 GW

TestAmerica Job ID: 500-145553-2

Tracer/Carrier Legend

Ba Carrier = Ba Carrier
Y Carrier = Y Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba Carrier (40-110)	Y Carrier (40-110)
500-145553-3	DUP	97.9	93.5
500-145553-10	R32S	101	89.3
500-145553-11	G45S	104	93.1
500-145553-11 DU	G45S	101	92.3
LCS 160-366811/1-A	Lab Control Sample	95.3	96.1
LCS 160-367072/1-A	Lab Control Sample	96.2	87.9
LCS 160-367837/1-A	Lab Control Sample	110	89.7
MB 160-366811/23-A	Method Blank	101	93.1
MB 160-367072/23-A	Method Blank	98.2	86.4
MB 160-367837/21-A	Method Blank	103	92.7

Tracer/Carrier Legend

Ba Carrier = Ba Carrier
Y Carrier = Y Carrier

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING



ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-155886-1
Client Project/Site: Joliet #9 CCR - 4Q18 GW

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
1/4/2019 1:59:32 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-155886-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-155886-1

Comments
No additional comments.

Receipt
The samples were received on 12/7/2018 4:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 9 coolers at receipt time were 2.2º C, 2.2º C, 2.3º C, 2.3º C, 2.5º C, 2.6º C, 3.0º C, 4.1º C and 4.1º C.

Metals
Method(s) 6020A: The internal standard Terbium (Tb) was used to report the element Lead in batch 500-464134. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-464840. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-465410. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-155886-1	G45S	Water	12/07/18 10:06	12/07/18 16:00
500-155886-2	G20S	Water	12/07/18 11:25	12/07/18 16:00
500-155886-3	G31S	Water	12/10/18 10:30	12/10/18 15:40
500-155886-4	G33S	Water	12/10/18 12:32	12/10/18 15:40
500-155886-5	G44S	Water	12/10/18 14:21	12/10/18 15:40
500-155886-6	T03S	Water	12/11/18 09:38	12/11/18 15:40
500-155886-7	G48S	Water	12/11/18 11:02	12/11/18 15:40
500-155886-8	G47S	Water	12/11/18 13:11	12/11/18 15:40
500-155886-9	G46S	Water	12/11/18 14:25	12/11/18 15:40
500-155886-10	T08S	Water	12/12/18 09:46	12/12/18 11:45
500-155886-11	T01S	Water	12/13/18 09:25	12/13/18 15:45
500-155886-12	R32S	Water	12/13/18 13:39	12/13/18 15:45
500-155886-13	R08S	Water	12/13/18 14:30	12/13/18 15:45
500-155886-14	T02S	Water	12/14/18 09:44	12/14/18 15:40
500-155886-15	DUP	Water	12/14/18 09:44	12/14/18 15:40
500-155886-16	G30S	Water	12/14/18 14:03	12/14/18 15:40
500-155886-17	T09S	Water	12/18/18 11:08	12/18/18 15:50
500-155886-18	T06S	Water	12/18/18 13:20	12/18/18 15:50
500-155886-19	T05S	Water	12/19/18 09:27	12/19/18 15:22
500-155886-20	T04S	Water	12/19/18 12:25	12/19/18 15:22

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G45S
Date Collected: 12/07/18 10:06
Date Received: 12/07/18 16:00

Lab Sample ID: 500-155886-1
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.031		0.010		mg/L		12/10/18 07:56	12/10/18 21:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0090		0.0010		mg/L		12/10/18 07:56	12/11/18 01:46	1
Barium	0.034		0.0025		mg/L		12/10/18 07:56	12/11/18 01:46	1
Boron	0.46		0.050		mg/L		12/10/18 07:56	12/11/18 01:46	1
Calcium	91		0.20		mg/L		12/10/18 07:56	12/11/18 01:46	1
Cobalt	<0.0010		0.0010		mg/L		12/10/18 07:56	12/11/18 01:46	1
Lead	<0.00050		0.00050		mg/L		12/10/18 07:56	12/11/18 13:12	1
Molybdenum	0.010		0.0050		mg/L		12/10/18 07:56	12/11/18 01:46	1
Selenium	<0.0025		0.0025		mg/L		12/10/18 07:56	12/11/18 01:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			12/08/18 13:48	1
Chloride	120		10		mg/L			12/28/18 13:19	5
Fluoride	0.33		0.10		mg/L			12/15/18 17:24	1
Sulfate	100		50		mg/L			12/20/18 14:19	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	63.77				ft			12/07/18 10:06	1
Depth to Water (ft from MP)	66.74				ft			12/07/18 10:06	1
Elevation of well (ft from MP)	603.90				ft			12/07/18 10:06	1
Field pH	7.02				SU			12/07/18 10:06	1
Field Temperature	49.8				Degrees F			12/07/18 10:06	1
Ground Water Elevation	537.16				ft			12/07/18 10:06	1
Specific Conductance	877				umhos/cm			12/07/18 10:06	1
Well bottom elevation	471.05				ft			12/07/18 10:06	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G20S

Date Collected: 12/07/18 11:25
Date Received: 12/07/18 16:00

Lab Sample ID: 500-155886-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.042**		0.010		mg/L		12/10/18 07:56	12/10/18 21:18	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/10/18 07:56	12/11/18 01:50	1
Barium	**0.048**		0.0025		mg/L		12/10/18 07:56	12/11/18 01:50	1
Boron	**1.2**		0.050		mg/L		12/10/18 07:56	12/11/18 01:50	1
Calcium	**58**		0.20		mg/L		12/10/18 07:56	12/11/18 01:50	1
Cobalt	**0.0010**		0.0010		mg/L		12/10/18 07:56	12/11/18 01:50	1
Lead	**0.0048**		0.00050		mg/L		12/10/18 07:56	12/11/18 13:13	1
Molybdenum	**0.023**		0.0050		mg/L		12/10/18 07:56	12/11/18 01:50	1
Selenium	<0.0025		0.0025		mg/L		12/10/18 07:56	12/11/18 01:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**480**		10		mg/L			12/08/18 13:51	1
Chloride	**12**		2.0		mg/L			12/27/18 15:31	1
Fluoride	**0.76**		0.10		mg/L			12/15/18 17:36	1
Sulfate	**65**		20		mg/L			12/20/18 14:20	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**46.68**				ft			12/07/18 11:25	1
Depth to Water (ft from MP)	**49.46**				ft			12/07/18 11:25	1
Elevation of well (ft from MP)	**580.91**				ft			12/07/18 11:25	1
Field pH	**7.41**				SU			12/07/18 11:25	1
Field Temperature	**40.8**				Degrees F			12/07/18 11:25	1
Ground Water Elevation	**531.45**				ft			12/07/18 11:25	1
Specific Conductance	**562**				umhos/cm			12/07/18 11:25	1
Well bottom elevation	**442.28**				ft			12/07/18 11:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G31S
Date Collected: 12/10/18 10:30
Date Received: 12/10/18 15:40

Lab Sample ID: 500-155886-3
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		12/11/18 16:45	12/12/18 21:00	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0051		0.0010		mg/L		12/11/18 16:45	12/12/18 17:34	1
Barium	0.051		0.0025		mg/L		12/11/18 16:45	12/12/18 17:34	1
Boron	4.4		0.050		mg/L		12/11/18 16:45	12/12/18 17:34	1
Calcium	130		0.20		mg/L		12/11/18 16:45	12/12/18 17:34	1
Cobalt	<0.0010		0.0010		mg/L		12/11/18 16:45	12/12/18 17:34	1
Lead	0.0012		0.00050		mg/L		12/11/18 16:45	12/12/18 17:34	1
Molybdenum	0.72		0.0050		mg/L		12/11/18 16:45	12/12/18 17:34	1
Selenium	<0.0025		0.0025		mg/L		12/11/18 16:45	12/12/18 17:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			12/12/18 02:36	1
Chloride	170		10		mg/L			12/28/18 15:05	5
Fluoride	0.26		0.10		mg/L			12/15/18 17:39	1
Sulfate	290		100		mg/L			12/20/18 14:21	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	23.16				ft			12/10/18 10:30	1
Depth to Water (ft from MP)	25.74				ft			12/10/18 10:30	1
Elevation of well (ft from MP)	535.78				ft			12/10/18 10:30	1
Field pH	7.17				SU			12/10/18 10:30	1
Field Temperature	54.9				Degrees F			12/10/18 10:30	1
Ground Water Elevation	510.04				ft			12/10/18 10:30	1
Specific Conductance	1282				umhos/cm			12/10/18 10:30	1
Well bottom elevation	453.36				ft			12/10/18 10:30	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G33S

Date Collected: 12/10/18 12:32
Date Received: 12/10/18 15:40

Lab Sample ID: 500-155886-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.038		0.010		mg/L		12/11/18 16:45	12/12/18 21:12	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0029		0.0010		mg/L		12/11/18 16:45	12/12/18 17:38	1
Barium	0.45		0.0025		mg/L		12/11/18 16:45	12/12/18 17:38	1
Boron	0.59		0.050		mg/L		12/11/18 16:45	12/12/18 17:38	1
Calcium	36		0.20		mg/L		12/11/18 16:45	12/12/18 17:38	1
Cobalt	<0.0010		0.0010		mg/L		12/11/18 16:45	12/12/18 17:38	1
Lead	0.016		0.00050		mg/L		12/11/18 16:45	12/12/18 17:38	1
Molybdenum	<0.0050		0.0050		mg/L		12/11/18 16:45	12/12/18 17:38	1
Selenium	<0.0025		0.0025		mg/L		12/11/18 16:45	12/12/18 17:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	410		10		mg/L			12/12/18 02:39	1
Chloride	6.3		2.0		mg/L			12/27/18 15:37	1
Fluoride	0.98		0.10		mg/L			12/15/18 17:42	1
Sulfate	50		20		mg/L			12/20/18 14:22	4

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	25.57				ft			12/10/18 12:32	1
Depth to Water (ft from MP)	27.30				ft			12/10/18 12:32	1
Elevation of well (ft from MP)	535.66				ft			12/10/18 12:32	1
Field pH	7.41				SU			12/10/18 12:32	1
Field Temperature	52.2				Degrees F			12/10/18 12:32	1
Ground Water Elevation	508.36				ft			12/10/18 12:32	1
Specific Conductance	461				umhos/cm			12/10/18 12:32	1
Well bottom elevation	452.72				ft			12/10/18 12:32	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G44S

Date Collected: 12/10/18 14:21
Date Received: 12/10/18 15:40

Lab Sample ID: 500-155886-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.019**		0.010		mg/L		12/11/18 16:45	12/12/18 21:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/11/18 16:45	12/12/18 17:42	1
Barium	**0.057**		0.0025		mg/L		12/11/18 16:45	12/12/18 17:42	1
Boron	**1.1**		0.050		mg/L		12/11/18 16:45	12/12/18 17:42	1
Calcium	**120**		0.20		mg/L		12/11/18 16:45	12/12/18 17:42	1
Cobalt	<0.0010		0.0010		mg/L		12/11/18 16:45	12/12/18 17:42	1
Lead	<0.00050		0.00050		mg/L		12/11/18 16:45	12/12/18 17:42	1
Molybdenum	**0.14**		0.0050		mg/L		12/11/18 16:45	12/12/18 17:42	1
Selenium	<0.0025		0.0025		mg/L		12/11/18 16:45	12/12/18 17:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**630**		10		mg/L			12/12/18 02:41	1
Chloride	**43**		2.0		mg/L			12/27/18 15:40	1
Fluoride	**0.19**		0.10		mg/L			12/15/18 17:45	1
Sulfate	**78**		50		mg/L			12/20/18 14:23	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**77.00**				ft			12/10/18 14:21	1
Depth to Water (ft from MP)	**79.18**				ft			12/10/18 14:21	1
Elevation of well (ft from MP)	**586.53**				ft			12/10/18 14:21	1
Field pH	**6.98**				SU			12/10/18 14:21	1
Field Temperature	**50.5**				Degrees F			12/10/18 14:21	1
Ground Water Elevation	**507.35**				ft			12/10/18 14:21	1
Specific Conductance	**852**				umhos/cm			12/10/18 14:21	1
Well bottom elevation	**455.11**				ft			12/10/18 14:21	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T03S
Date Collected: 12/11/18 09:38
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-6
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		12/12/18 07:20	12/12/18 21:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0014		0.0010		mg/L		12/12/18 07:20	12/12/18 18:05	1
Barium	0.095		0.0025		mg/L		12/12/18 07:20	12/12/18 18:05	1
Boron	1.8		0.050		mg/L		12/12/18 07:20	12/12/18 18:05	1
Calcium	100		0.20		mg/L		12/12/18 07:20	12/12/18 18:05	1
Cobalt	0.0012		0.0010		mg/L		12/12/18 07:20	12/12/18 18:05	1
Lead	<0.00050		0.00050		mg/L		12/12/18 07:20	12/12/18 18:05	1
Molybdenum	0.27		0.0050		mg/L		12/12/18 07:20	12/12/18 18:05	1
Selenium	<0.0025		0.0025		mg/L		12/12/18 07:20	12/12/18 18:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			12/12/18 02:44	1
Chloride	140		10		mg/L			12/28/18 15:06	5
Fluoride	0.23		0.10		mg/L			12/15/18 17:48	1
Sulfate	160		50		mg/L			12/20/18 14:26	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	136.95				ft			12/11/18 09:38	1
Depth to Water (ft from MP)	140.03				ft			12/11/18 09:38	1
Elevation of well (ft from MP)	629.89				ft			12/11/18 09:38	1
Field pH	6.96				SU			12/11/18 09:38	1
Field Temperature	50.4				Degrees F			12/11/18 09:38	1
Ground Water Elevation	489.86				ft			12/11/18 09:38	1
Specific Conductance	1131				umhos/cm			12/11/18 09:38	1
Well bottom elevation	456.70				ft			12/11/18 09:38	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G48S
Date Collected: 12/11/18 11:02
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-7
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.019		0.010		mg/L		12/12/18 07:20	12/12/18 21:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.023		0.0010		mg/L		12/12/18 07:20	12/12/18 18:09	1
Barium	0.016		0.0025		mg/L		12/12/18 07:20	12/12/18 18:09	1
Boron	7.3		1.0		mg/L		12/12/18 07:20	12/13/18 10:48	20
Calcium	23		0.20		mg/L		12/12/18 07:20	12/12/18 18:09	1
Cobalt	<0.0010		0.0010		mg/L		12/12/18 07:20	12/12/18 18:09	1
Lead	0.0049		0.00050		mg/L		12/12/18 07:20	12/12/18 18:09	1
Molybdenum	0.79		0.0050		mg/L		12/12/18 07:20	12/12/18 18:09	1
Selenium	<0.0025		0.0025		mg/L		12/12/18 07:20	12/12/18 18:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			12/12/18 02:46	1
Chloride	110		10		mg/L			12/28/18 15:07	5
Fluoride	1.1		0.10		mg/L			12/15/18 17:51	1
Sulfate	310		100		mg/L			12/20/18 14:29	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	103.34				ft			12/11/18 11:02	1
Depth to Water (ft from MP)	105.79				ft			12/11/18 11:02	1
Elevation of well (ft from MP)	620.78				ft			12/11/18 11:02	1
Field pH	8.42				SU			12/11/18 11:02	1
Field Temperature	49.5				Degrees F			12/11/18 11:02	1
Ground Water Elevation	514.99				ft			12/11/18 11:02	1
Specific Conductance	1323				umhos/cm			12/11/18 11:02	1
Well bottom elevation	468.32				ft			12/11/18 11:02	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G47S
Date Collected: 12/11/18 13:11
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-8
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.023		0.010		mg/L		12/12/18 07:20	12/12/18 21:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.14		0.0010		mg/L		12/12/18 07:20	12/12/18 18:13	1
Barium	0.011		0.0025		mg/L		12/12/18 07:20	12/12/18 18:13	1
Boron	13		2.5		mg/L		12/12/18 07:20	12/13/18 10:52	50
Calcium	2.8		0.20		mg/L		12/12/18 07:20	12/12/18 18:13	1
Cobalt	<0.0010		0.0010		mg/L		12/12/18 07:20	12/12/18 18:13	1
Lead	<0.00050		0.00050		mg/L		12/12/18 07:20	12/12/18 18:13	1
Molybdenum	1.1		0.0050		mg/L		12/12/18 07:20	12/12/18 18:13	1
Selenium	0.0031		0.0025		mg/L		12/12/18 07:20	12/12/18 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1300		10		mg/L			12/12/18 02:49	1
Chloride	140		10		mg/L			12/28/18 15:08	5
Fluoride	1.1		0.10		mg/L			12/15/18 17:54	1
Sulfate	440		100		mg/L			12/20/18 14:30	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	93.79				ft			12/11/18 13:11	1
Depth to Water (ft from MP)	96.29				ft			12/11/18 13:11	1
Elevation of well (ft from MP)	612.10				ft			12/11/18 13:11	1
Field pH	10.14				SU			12/11/18 13:11	1
Field Temperature	51.8				Degrees F			12/11/18 13:11	1
Ground Water Elevation	515.81				ft			12/11/18 13:11	1
Specific Conductance	1850				umhos/cm			12/11/18 13:11	1
Well bottom elevation	459.84				ft			12/11/18 13:11	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G46S
Date Collected: 12/11/18 14:25
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-9
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.096		0.010		mg/L		12/12/18 07:20	12/12/18 21:41	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0010		mg/L		12/12/18 07:20	12/12/18 18:16	1
Barium	0.055		0.0025		mg/L		12/12/18 07:20	12/12/18 18:16	1
Boron	7.6		1.0		mg/L		12/12/18 07:20	12/13/18 10:56	20
Calcium	120		0.20		mg/L		12/12/18 07:20	12/12/18 18:16	1
Cobalt	<0.0010		0.0010		mg/L		12/12/18 07:20	12/12/18 18:16	1
Lead	<0.00050		0.00050		mg/L		12/12/18 07:20	12/12/18 18:16	1
Molybdenum	1.2		0.0050		mg/L		12/12/18 07:20	12/12/18 18:16	1
Selenium	<0.0025		0.0025		mg/L		12/12/18 07:20	12/12/18 18:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			12/12/18 02:51	1
Chloride	110		10		mg/L			12/28/18 15:46	5
Fluoride	0.38		0.10		mg/L			12/15/18 17:57	1
Sulfate	270		100		mg/L			12/20/18 14:31	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	88.64				ft			12/11/18 14:25	1
Depth to Water (ft from MP)	91.34				ft			12/11/18 14:25	1
Elevation of well (ft from MP)	601.43				ft			12/11/18 14:25	1
Field pH	7.66				SU			12/11/18 14:25	1
Field Temperature	54.0				Degrees F			12/11/18 14:25	1
Ground Water Elevation	510.09				ft			12/11/18 14:25	1
Specific Conductance	1252				umhos/cm			12/11/18 14:25	1
Well bottom elevation	453.62				ft			12/11/18 14:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T08S
Date Collected: 12/12/18 09:46
Date Received: 12/12/18 11:45

Lab Sample ID: 500-155886-10
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.026		0.010		mg/L		12/13/18 08:43	12/13/18 17:47	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.015		0.0010		mg/L		12/13/18 08:43	12/13/18 21:45	1
Barium	0.041		0.0025		mg/L		12/13/18 08:43	12/13/18 21:45	1
Boron	7.5		1.0		mg/L		12/13/18 08:43	12/14/18 12:32	20
Calcium	33		0.20		mg/L		12/13/18 08:43	12/13/18 21:45	1
Cobalt	<0.0010		0.0010		mg/L		12/13/18 08:43	12/13/18 21:45	1
Lead	<0.00050		0.00050		mg/L		12/13/18 08:43	12/14/18 12:59	1
Molybdenum	0.88		0.0050		mg/L		12/13/18 08:43	12/13/18 21:45	1
Selenium	<0.0025		0.0025		mg/L		12/13/18 08:43	12/13/18 21:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	950		10		mg/L			12/13/18 06:23	1
Chloride	120		10		mg/L			12/28/18 15:46	5
Fluoride	0.89		0.10		mg/L			12/15/18 18:00	1
Sulfate	260		100		mg/L			12/20/18 14:32	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	128.72				ft			12/12/18 09:46	1
Depth to Water (ft from MP)	131.10				ft			12/12/18 09:46	1
Elevation of well (ft from MP)	627.39				ft			12/12/18 09:46	1
Field pH	8.21				SU			12/12/18 09:46	1
Field Temperature	49.1				Degrees F			12/12/18 09:46	1
Ground Water Elevation	496.29				ft			12/12/18 09:46	1
Specific Conductance	1197				umhos/cm			12/12/18 09:46	1
Well bottom elevation	447.38				ft			12/12/18 09:46	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T01S
Date Collected: 12/13/18 09:25
Date Received: 12/13/18 15:45

Lab Sample ID: 500-155886-11
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018		0.010		mg/L		12/14/18 16:39	12/17/18 12:00	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016		0.0010		mg/L		12/14/18 16:39	12/17/18 20:17	1
Barium	0.084		0.0025		mg/L		12/14/18 16:39	12/17/18 20:17	1
Boron	3.3	F1	0.050		mg/L		12/14/18 16:39	12/17/18 20:17	1
Calcium	56		0.20		mg/L		12/14/18 16:39	12/17/18 20:17	1
Cobalt	0.0037		0.0010		mg/L		12/14/18 16:39	12/17/18 20:17	1
Lead	0.0053		0.00050		mg/L		12/14/18 16:39	12/17/18 20:17	1
Molybdenum	0.30		0.0050		mg/L		12/14/18 16:39	12/17/18 20:17	1
Selenium	<0.0025		0.0025		mg/L		12/14/18 16:39	12/17/18 20:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	900		10		mg/L			12/14/18 07:07	1
Chloride	110		10		mg/L			12/28/18 15:50	5
Fluoride	1.1		0.10		mg/L			12/15/18 18:03	1
Sulfate	240		100		mg/L			12/20/18 14:33	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	122.19				ft			12/13/18 09:25	1
Depth to Water (ft from MP)	124.67				ft			12/13/18 09:25	1
Elevation of well (ft from MP)	621.78				ft			12/13/18 09:25	1
Field pH	7.37				SU			12/13/18 09:25	1
Field Temperature	44.2				Degrees F			12/13/18 09:25	1
Ground Water Elevation	497.11				ft			12/13/18 09:25	1
Specific Conductance	1180				umhos/cm			12/13/18 09:25	1
Well bottom elevation	451.46				ft			12/13/18 09:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: R32S
Date Collected: 12/13/18 13:39
Date Received: 12/13/18 15:45

Lab Sample ID: 500-155886-12
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.080		0.010		mg/L		12/14/18 16:39	12/17/18 12:28	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0019		0.0010		mg/L		12/14/18 16:39	12/17/18 20:36	1
Barium	0.043		0.0025		mg/L		12/14/18 16:39	12/17/18 20:36	1
Boron	3.5		0.050		mg/L		12/14/18 16:39	12/17/18 20:36	1
Calcium	120		0.20		mg/L		12/14/18 16:39	12/17/18 20:36	1
Cobalt	<0.0010		0.0010		mg/L		12/14/18 16:39	12/17/18 20:36	1
Lead	0.0017		0.00050		mg/L		12/14/18 16:39	12/17/18 20:36	1
Molybdenum	0.56		0.0050		mg/L		12/14/18 16:39	12/17/18 20:36	1
Selenium	<0.0025		0.0025		mg/L		12/14/18 16:39	12/17/18 20:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	880		10		mg/L			12/14/18 07:14	1
Chloride	72	F1	2.0		mg/L			12/28/18 15:16	1
Fluoride	0.26		0.10		mg/L			12/15/18 18:15	1
Sulfate	280		100		mg/L			12/20/18 14:34	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	16.29				ft			12/13/18 13:39	1
Depth to Water (ft from MP)	18.32				ft			12/13/18 13:39	1
Elevation of well (ft from MP)	536.99				ft			12/13/18 13:39	1
Field pH	7.43				SU			12/13/18 13:39	1
Field Temperature	52.7				Degrees F			12/13/18 13:39	1
Ground Water Elevation	518.67				ft			12/13/18 13:39	1
Specific Conductance	854				umhos/cm			12/13/18 13:39	1
Well bottom elevation	457.84				ft			12/13/18 13:39	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: R08S
Date Collected: 12/13/18 14:30
Date Received: 12/13/18 15:45

Lab Sample ID: 500-155886-13
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.15		0.010		mg/L		12/14/18 16:39	12/17/18 12:32	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0012		0.0010		mg/L		12/14/18 16:39	12/17/18 20:40	1
Barium	0.046		0.0025		mg/L		12/14/18 16:39	12/17/18 20:40	1
Boron	7.7		0.50		mg/L		12/14/18 16:39	12/18/18 11:59	10
Calcium	140		0.20		mg/L		12/14/18 16:39	12/17/18 20:40	1
Cobalt	<0.0010		0.0010		mg/L		12/14/18 16:39	12/17/18 20:40	1
Lead	<0.00050		0.00050		mg/L		12/14/18 16:39	12/17/18 20:40	1
Molybdenum	0.37		0.0050		mg/L		12/14/18 16:39	12/17/18 20:40	1
Selenium	0.017		0.0025		mg/L		12/14/18 16:39	12/17/18 20:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	800		10		mg/L			12/14/18 07:17	1
Chloride	79		10		mg/L			12/28/18 16:20	5
Fluoride	0.15		0.10		mg/L			12/15/18 18:18	1
Sulfate	240		100		mg/L			12/20/18 14:35	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	62.93				ft			12/13/18 14:30	1
Depth to Water (ft from MP)	65.48				ft			12/13/18 14:30	1
Elevation of well (ft from MP)	578.62				ft			12/13/18 14:30	1
Field pH	8.11				SU			12/13/18 14:30	1
Field Temperature	53.8				Degrees F			12/13/18 14:30	1
Ground Water Elevation	513.14				ft			12/13/18 14:30	1
Specific Conductance	916				umhos/cm			12/13/18 14:30	1
Well bottom elevation	453.08				ft			12/13/18 14:30	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T02S

Date Collected: 12/14/18 09:44
Date Received: 12/14/18 15:40

Lab Sample ID: 500-155886-14

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.027		0.010		mg/L		12/18/18 07:45	12/18/18 20:57	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0086		0.0010		mg/L		12/18/18 07:45	12/18/18 20:27	1
Barium	0.063		0.0025		mg/L		12/18/18 07:45	12/18/18 20:27	1
Boron	4.9		0.50		mg/L		12/18/18 07:45	12/19/18 12:23	10
Calcium	53		0.20		mg/L		12/18/18 07:45	12/18/18 20:27	1
Cobalt	0.0016		0.0010		mg/L		12/18/18 07:45	12/18/18 20:27	1
Lead	0.0070		0.00050		mg/L		12/18/18 07:45	12/18/18 20:27	1
Molybdenum	0.50		0.0050		mg/L		12/18/18 07:45	12/18/18 20:27	1
Selenium	<0.0025		0.0025		mg/L		12/18/18 07:45	12/18/18 20:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	870		10		mg/L			12/17/18 05:20	1
Chloride	110		10		mg/L			12/28/18 15:51	5
Fluoride	0.47		0.10		mg/L			12/15/18 18:22	1
Sulfate	210		100		mg/L			12/21/18 11:24	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	133.85				ft			12/14/18 09:44	1
Depth to Water (ft from MP)	136.18				ft			12/14/18 09:44	1
Elevation of well (ft from MP)	626.16				ft			12/14/18 09:44	1
Field pH	7.55				SU			12/14/18 09:44	1
Field Temperature	46.8				Degrees F			12/14/18 09:44	1
Ground Water Elevation	489.98				ft			12/14/18 09:44	1
Specific Conductance	1098				umhos/cm			12/14/18 09:44	1
Well bottom elevation	453.40				ft			12/14/18 09:44	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: DUP
Date Collected: 12/14/18 09:44
Date Received: 12/14/18 15:40

Lab Sample ID: 500-155886-15
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.028		0.010		mg/L		12/18/18 07:45	12/18/18 21:01	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0086		0.0010		mg/L		12/18/18 07:45	12/18/18 20:31	1
Barium	0.064		0.0025		mg/L		12/18/18 07:45	12/18/18 20:31	1
Boron	4.9		0.50		mg/L		12/18/18 07:45	12/19/18 12:27	10
Calcium	56		0.20		mg/L		12/18/18 07:45	12/18/18 20:31	1
Cobalt	0.0010		0.0010		mg/L		12/18/18 07:45	12/18/18 20:31	1
Lead	0.00089		0.00050		mg/L		12/18/18 07:45	12/18/18 20:31	1
Molybdenum	0.52		0.0050		mg/L		12/18/18 07:45	12/18/18 20:31	1
Selenium	<0.0025		0.0025		mg/L		12/18/18 07:45	12/18/18 20:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	900		10		mg/L			12/17/18 05:25	1
Chloride	110		10		mg/L			12/28/18 15:52	5
Fluoride	0.47		0.10		mg/L			12/15/18 18:25	1
Sulfate	170		100		mg/L			12/21/18 11:25	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	133.85				ft			12/14/18 09:44	1
Depth to Water (ft from MP)	136.18				ft			12/14/18 09:44	1
Elevation of well (ft from MP)	626.16				ft			12/14/18 09:44	1
Field pH	7.55				SU			12/14/18 09:44	1
Field Temperature	46.8				Degrees F			12/14/18 09:44	1
Ground Water Elevation	489.98				ft			12/14/18 09:44	1
Specific Conductance	1098				umhos/cm			12/14/18 09:44	1
Well bottom elevation	453.40				ft			12/14/18 09:44	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G30S
Date Collected: 12/14/18 14:03
Date Received: 12/14/18 15:40

Lab Sample ID: 500-155886-16
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.022		0.010		mg/L		12/18/18 07:45	12/18/18 21:05	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0069		0.0010		mg/L		12/18/18 07:45	12/18/18 20:35	1
Barium	0.041		0.0025		mg/L		12/18/18 07:45	12/18/18 20:35	1
Boron	5.8		0.50		mg/L		12/18/18 07:45	12/19/18 12:31	10
Calcium	57		0.20		mg/L		12/18/18 07:45	12/18/18 20:35	1
Cobalt	<0.0010		0.0010		mg/L		12/18/18 07:45	12/18/18 20:35	1
Lead	<0.00050		0.00050		mg/L		12/18/18 07:45	12/18/18 20:35	1
Molybdenum	0.065		0.0050		mg/L		12/18/18 07:45	12/18/18 20:35	1
Selenium	<0.0025		0.0025		mg/L		12/18/18 07:45	12/18/18 20:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			12/17/18 05:28	1
Chloride	200		10		mg/L			12/28/18 15:54	5
Fluoride	1.2		0.10		mg/L			12/15/18 18:37	1
Sulfate	200		100		mg/L			12/21/18 11:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	0.20				ft			12/14/18 14:03	1
Depth to Water (ft from MP)	2.51				ft			12/14/18 14:03	1
Elevation of well (ft from MP)	524.70				ft			12/14/18 14:03	1
Field pH	7.99				SU			12/14/18 14:03	1
Field Temperature	49.6				Degrees F			12/14/18 14:03	1
Ground Water Elevation	522.19				ft			12/14/18 14:03	1
Specific Conductance	1422				umhos/cm			12/14/18 14:03	1
Well bottom elevation	462.58				ft			12/14/18 14:03	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T09S
Date Collected: 12/18/18 11:08
Date Received: 12/18/18 15:50

Lab Sample ID: 500-155886-17
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.097		0.010		mg/L		12/19/18 07:35	12/19/18 13:39	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0010		mg/L		12/19/18 07:35	12/19/18 16:52	1
Barium	0.093		0.0025		mg/L		12/19/18 07:35	12/19/18 16:52	1
Boron	6.6		0.50		mg/L		12/19/18 07:35	12/20/18 17:51	10
Calcium	120		0.20		mg/L		12/19/18 07:35	12/19/18 16:52	1
Cobalt	0.0011		0.0010		mg/L		12/19/18 07:35	12/19/18 16:52	1
Lead	0.0017		0.00050		mg/L		12/19/18 07:35	12/19/18 16:52	1
Molybdenum	1.0		0.0050		mg/L		12/19/18 07:35	12/19/18 16:52	1
Selenium	<0.0025		0.0025		mg/L		12/19/18 07:35	12/19/18 16:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			12/19/18 06:23	1
Chloride	120		10		mg/L			12/28/18 15:54	5
Fluoride	0.35		0.10		mg/L			12/20/18 13:08	1
Sulfate	270		100		mg/L			12/31/18 00:34	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	93.23				ft			12/18/18 11:08	1
Depth to Water (ft from MP)	95.63				ft			12/18/18 11:08	1
Elevation of well (ft from MP)	603.74				ft			12/18/18 11:08	1
Field pH	7.54				SU			12/18/18 11:08	1
Field Temperature	46.0				Degrees F			12/18/18 11:08	1
Ground Water Elevation	508.11				ft			12/18/18 11:08	1
Specific Conductance	1189				umhos/cm			12/18/18 11:08	1
Well bottom elevation	444.80				ft			12/18/18 11:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T06S
Date Collected: 12/18/18 13:20
Date Received: 12/18/18 15:50

Lab Sample ID: 500-155886-18
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.028		0.010		mg/L		12/19/18 07:35	12/19/18 13:43	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/19/18 07:35	12/19/18 16:56	1
Barium	0.035		0.0025		mg/L		12/19/18 07:35	12/19/18 16:56	1
Boron	0.72		0.050		mg/L		12/19/18 07:35	12/19/18 16:56	1
Calcium	88		0.20		mg/L		12/19/18 07:35	12/19/18 16:56	1
Cobalt	<0.0010		0.0010		mg/L		12/19/18 07:35	12/19/18 16:56	1
Lead	<0.00050		0.00050		mg/L		12/19/18 07:35	12/19/18 16:56	1
Molybdenum	0.0085		0.0050		mg/L		12/19/18 07:35	12/19/18 16:56	1
Selenium	<0.0025		0.0025		mg/L		12/19/18 07:35	12/19/18 16:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	530		10		mg/L			12/19/18 06:28	1
Chloride	18		2.0		mg/L			12/28/18 15:23	1
Fluoride	0.38		0.10		mg/L			12/20/18 13:11	1
Sulfate	66		25		mg/L			12/31/18 00:35	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	113.35				ft			12/18/18 13:20	1
Depth to Water (ft from MP)	115.65				ft			12/18/18 13:20	1
Elevation of well (ft from MP)	621.02				ft			12/18/18 13:20	1
Field pH	7.36				SU			12/18/18 13:20	1
Field Temperature	50.0				Degrees F			12/18/18 13:20	1
Ground Water Elevation	505.37				ft			12/18/18 13:20	1
Specific Conductance	658				umhos/cm			12/18/18 13:20	1
Well bottom elevation	447.94				ft			12/18/18 13:20	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T05S
Date Collected: 12/19/18 09:27
Date Received: 12/19/18 15:22

Lab Sample ID: 500-155886-19
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.015		0.010		mg/L		12/20/18 16:20	12/21/18 20:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.14		0.0010		mg/L		12/20/18 16:20	12/24/18 19:59	1
Barium	0.010		0.0025		mg/L		12/20/18 16:20	12/24/18 19:59	1
Boron	13		5.0		mg/L		12/20/18 16:20	12/26/18 13:13	100
Calcium	1.4		0.20		mg/L		12/20/18 16:20	12/24/18 19:59	1
Cobalt	<0.0010		0.0010		mg/L		12/20/18 16:20	12/24/18 19:59	1
Lead	<0.00050		0.00050		mg/L		12/20/18 16:20	12/24/18 19:59	1
Molybdenum	1.0		0.0050		mg/L		12/20/18 16:20	12/24/18 19:59	1
Selenium	0.0026		0.0025		mg/L		12/20/18 16:20	12/24/18 19:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		10		mg/L			12/20/18 07:20	1
Chloride	150		10		mg/L			12/28/18 15:55	5
Fluoride	1.8		0.10		mg/L			12/20/18 13:15	1
Sulfate	410		250		mg/L			12/31/18 00:36	50

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	123.19				ft			12/19/18 09:27	1
Depth to Water (ft from MP)	125.59				ft			12/19/18 09:27	1
Elevation of well (ft from MP)	623.45				ft			12/19/18 09:27	1
Field pH	10.37				SU			12/19/18 09:27	1
Field Temperature	47.8				Degrees F			12/19/18 09:27	1
Ground Water Elevation	497.86				ft			12/19/18 09:27	1
Specific Conductance	2010				umhos/cm			12/19/18 09:27	1
Well bottom elevation	448.35				ft			12/19/18 09:27	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T04S
Date Collected: 12/19/18 12:25
Date Received: 12/19/18 15:22

Lab Sample ID: 500-155886-20
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.027		0.010		mg/L		12/20/18 16:20	12/21/18 20:42	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/20/18 16:20	12/24/18 20:03	1
Barium	0.056		0.0025		mg/L		12/20/18 16:20	12/24/18 20:03	1
Boron	0.24		0.050		mg/L		12/20/18 16:20	12/26/18 13:17	1
Calcium	93		0.20		mg/L		12/20/18 16:20	12/24/18 20:03	1
Cobalt	<0.0010		0.0010		mg/L		12/20/18 16:20	12/24/18 20:03	1
Lead	0.0018		0.00050		mg/L		12/20/18 16:20	12/24/18 20:03	1
Molybdenum	0.012		0.0050		mg/L		12/20/18 16:20	12/24/18 20:03	1
Selenium	<0.0025		0.0025		mg/L		12/20/18 16:20	12/24/18 20:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	510		10		mg/L			12/20/18 07:25	1
Chloride	8.7		2.0		mg/L			12/28/18 15:24	1
Fluoride	0.24		0.10		mg/L			12/20/18 13:18	1
Sulfate	67		25		mg/L			12/31/18 00:37	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	156.10				ft			12/19/18 12:25	1
Depth to Water (ft from MP)	158.52				ft			12/19/18 12:25	1
Elevation of well (ft from MP)	631.35				ft			12/19/18 12:25	1
Field pH	7.89				SU			12/19/18 12:25	1
Field Temperature	54.3				Degrees F			12/19/18 12:25	1
Ground Water Elevation	472.83				ft			12/19/18 12:25	1
Specific Conductance	662				umhos/cm			12/19/18 12:25	1
Well bottom elevation	458.07				ft			12/19/18 12:25	1

Qualifiers

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 463829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total Recoverable	Water	3005A	
500-155886-2	G20S	Total Recoverable	Water	3005A	
MB 500-463829/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-463829/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 464008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total Recoverable	Water	6010C	463829
500-155886-2	G20S	Total Recoverable	Water	6010C	463829
MB 500-463829/1-A	Method Blank	Total Recoverable	Water	6010C	463829
LCS 500-463829/2-A	Lab Control Sample	Total Recoverable	Water	6010C	463829

Analysis Batch: 464030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total Recoverable	Water	6020A	463829
500-155886-2	G20S	Total Recoverable	Water	6020A	463829
MB 500-463829/1-A	Method Blank	Total Recoverable	Water	6020A	463829
LCS 500-463829/2-A	Lab Control Sample	Total Recoverable	Water	6020A	463829

Analysis Batch: 464134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total Recoverable	Water	6020A	463829
500-155886-2	G20S	Total Recoverable	Water	6020A	463829
MB 500-463829/1-A	Method Blank	Total Recoverable	Water	6020A	463829
LCS 500-463829/2-A	Lab Control Sample	Total Recoverable	Water	6020A	463829

Prep Batch: 464173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-3	G31S	Total Recoverable	Water	3005A	
500-155886-4	G33S	Total Recoverable	Water	3005A	
500-155886-5	G44S	Total Recoverable	Water	3005A	
MB 500-464173/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-464173/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 464229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-6	T03S	Total Recoverable	Water	3005A	
500-155886-7	G48S	Total Recoverable	Water	3005A	
500-155886-8	G47S	Total Recoverable	Water	3005A	
500-155886-9	G46S	Total Recoverable	Water	3005A	
MB 500-464229/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-464229/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 464449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-3	G31S	Total Recoverable	Water	6010C	464173
500-155886-4	G33S	Total Recoverable	Water	6010C	464173
500-155886-5	G44S	Total Recoverable	Water	6010C	464173
500-155886-6	T03S	Total Recoverable	Water	6010C	464229
500-155886-7	G48S	Total Recoverable	Water	6010C	464229
500-155886-8	G47S	Total Recoverable	Water	6010C	464229

Metals (Continued)

Analysis Batch: 464449 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-9	G46S	Total Recoverable	Water	6010C	464229
MB 500-464173/1-A	Method Blank	Total Recoverable	Water	6010C	464173
MB 500-464229/1-A	Method Blank	Total Recoverable	Water	6010C	464229
LCS 500-464173/2-A	Lab Control Sample	Total Recoverable	Water	6010C	464173
LCS 500-464229/2-A	Lab Control Sample	Total Recoverable	Water	6010C	464229

Prep Batch: 464470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-10	T08S	Total Recoverable	Water	3005A	
MB 500-464470/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-464470/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 464479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-3	G31S	Total Recoverable	Water	6020A	464173
500-155886-4	G33S	Total Recoverable	Water	6020A	464173
500-155886-5	G44S	Total Recoverable	Water	6020A	464173
500-155886-6	T03S	Total Recoverable	Water	6020A	464229
500-155886-7	G48S	Total Recoverable	Water	6020A	464229
500-155886-8	G47S	Total Recoverable	Water	6020A	464229
500-155886-9	G46S	Total Recoverable	Water	6020A	464229
MB 500-464173/1-A	Method Blank	Total Recoverable	Water	6020A	464173
MB 500-464229/1-A	Method Blank	Total Recoverable	Water	6020A	464229
LCS 500-464173/2-A	Lab Control Sample	Total Recoverable	Water	6020A	464173
LCS 500-464229/2-A	Lab Control Sample	Total Recoverable	Water	6020A	464229

Analysis Batch: 464675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-10	T08S	Total Recoverable	Water	6010C	464470
MB 500-464470/1-A	Method Blank	Total Recoverable	Water	6010C	464470
LCS 500-464470/2-A	Lab Control Sample	Total Recoverable	Water	6010C	464470

Analysis Batch: 464726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-7	G48S	Total Recoverable	Water	6020A	464229
500-155886-8	G47S	Total Recoverable	Water	6020A	464229
500-155886-9	G46S	Total Recoverable	Water	6020A	464229
500-155886-10	T08S	Total Recoverable	Water	6020A	464470
MB 500-464470/1-A	Method Blank	Total Recoverable	Water	6020A	464470
LCS 500-464470/2-A	Lab Control Sample	Total Recoverable	Water	6020A	464470

Analysis Batch: 464840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-10	T08S	Total Recoverable	Water	6020A	464470
500-155886-10	T08S	Total Recoverable	Water	6020A	464470
MB 500-464470/1-A	Method Blank	Total Recoverable	Water	6020A	464470
LCS 500-464470/2-A	Lab Control Sample	Total Recoverable	Water	6020A	464470

Prep Batch: 464864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-11	T01S	Total Recoverable	Water	3005A	

Metals (Continued)

Prep Batch: 464864 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-12	R32S	Total Recoverable	Water	3005A	
500-155886-13	R08S	Total Recoverable	Water	3005A	
MB 500-464864/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-464864/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-155886-11 MS	T01S	Total Recoverable	Water	3005A	
500-155886-11 MSD	T01S	Total Recoverable	Water	3005A	
500-155886-11 DU	T01S	Total Recoverable	Water	3005A	

Analysis Batch: 465058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-11	T01S	Total Recoverable	Water	6010C	464864
500-155886-12	R32S	Total Recoverable	Water	6010C	464864
500-155886-13	R08S	Total Recoverable	Water	6010C	464864
MB 500-464864/1-A	Method Blank	Total Recoverable	Water	6010C	464864
LCS 500-464864/2-A	Lab Control Sample	Total Recoverable	Water	6010C	464864
500-155886-11 MS	T01S	Total Recoverable	Water	6010C	464864
500-155886-11 MSD	T01S	Total Recoverable	Water	6010C	464864
500-155886-11 DU	T01S	Total Recoverable	Water	6010C	464864

Prep Batch: 465177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-14	T02S	Total Recoverable	Water	3005A	
500-155886-15	DUP	Total Recoverable	Water	3005A	
500-155886-16	G30S	Total Recoverable	Water	3005A	
MB 500-465177/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-465177/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 465210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-11	T01S	Total Recoverable	Water	6020A	464864
500-155886-12	R32S	Total Recoverable	Water	6020A	464864
500-155886-13	R08S	Total Recoverable	Water	6020A	464864
MB 500-464864/1-A	Method Blank	Total Recoverable	Water	6020A	464864
LCS 500-464864/2-A	Lab Control Sample	Total Recoverable	Water	6020A	464864
500-155886-11 MS	T01S	Total Recoverable	Water	6020A	464864
500-155886-11 MSD	T01S	Total Recoverable	Water	6020A	464864
500-155886-11 DU	T01S	Total Recoverable	Water	6020A	464864

Analysis Batch: 465309

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-13	R08S	Total Recoverable	Water	6020A	464864

Analysis Batch: 465374

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-14	T02S	Total Recoverable	Water	6010C	465177
500-155886-15	DUP	Total Recoverable	Water	6010C	465177
500-155886-16	G30S	Total Recoverable	Water	6010C	465177
MB 500-465177/1-A	Method Blank	Total Recoverable	Water	6010C	465177
LCS 500-465177/2-A	Lab Control Sample	Total Recoverable	Water	6010C	465177

Metals (Continued)

Prep Batch: 465384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-17	T09S	Total Recoverable	Water	3005A	
500-155886-18	T06S	Total Recoverable	Water	3005A	
MB 500-465384/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-465384/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 465410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-14	T02S	Total Recoverable	Water	6020A	465177
500-155886-15	DUP	Total Recoverable	Water	6020A	465177
500-155886-16	G30S	Total Recoverable	Water	6020A	465177
MB 500-465177/1-A	Method Blank	Total Recoverable	Water	6020A	465177
LCS 500-465177/2-A	Lab Control Sample	Total Recoverable	Water	6020A	465177

Analysis Batch: 465552

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-14	T02S	Total Recoverable	Water	6020A	465177
500-155886-15	DUP	Total Recoverable	Water	6020A	465177
500-155886-16	G30S	Total Recoverable	Water	6020A	465177
MB 500-465177/1-A	Method Blank	Total Recoverable	Water	6020A	465177
LCS 500-465177/2-A	Lab Control Sample	Total Recoverable	Water	6020A	465177

Analysis Batch: 465562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-17	T09S	Total Recoverable	Water	6010C	465384
500-155886-18	T06S	Total Recoverable	Water	6010C	465384
MB 500-465384/1-A	Method Blank	Total Recoverable	Water	6010C	465384
LCS 500-465384/2-A	Lab Control Sample	Total Recoverable	Water	6010C	465384

Analysis Batch: 465688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-17	T09S	Total Recoverable	Water	6020A	465384
500-155886-18	T06S	Total Recoverable	Water	6020A	465384
MB 500-465384/1-A	Method Blank	Total Recoverable	Water	6020A	465384
LCS 500-465384/2-A	Lab Control Sample	Total Recoverable	Water	6020A	465384

Prep Batch: 465795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-19	T05S	Total Recoverable	Water	3005A	
500-155886-20	T04S	Total Recoverable	Water	3005A	
MB 500-465795/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-465795/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 466123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-19	T05S	Total Recoverable	Water	6010C	465795
500-155886-20	T04S	Total Recoverable	Water	6010C	465795
MB 500-465795/1-A	Method Blank	Total Recoverable	Water	6010C	465795
LCS 500-465795/2-A	Lab Control Sample	Total Recoverable	Water	6010C	465795

Metals (Continued)

Analysis Batch: 466171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-17	T09S	Total Recoverable	Water	6020A	465384

Analysis Batch: 466297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-19	T05S	Total Recoverable	Water	6020A	465795
500-155886-20	T04S	Total Recoverable	Water	6020A	465795
MB 500-465795/1-A	Method Blank	Total Recoverable	Water	6020A	465795
LCS 500-465795/2-A	Lab Control Sample	Total Recoverable	Water	6020A	465795

Analysis Batch: 466417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-19	T05S	Total Recoverable	Water	6020A	465795
500-155886-20	T04S	Total Recoverable	Water	6020A	465795

General Chemistry

Analysis Batch: 463760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total/NA	Water	SM 2540C	
500-155886-2	G20S	Total/NA	Water	SM 2540C	
MB 500-463760/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-463760/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 464216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-3	G31S	Total/NA	Water	SM 2540C	
500-155886-4	G33S	Total/NA	Water	SM 2540C	
500-155886-5	G44S	Total/NA	Water	SM 2540C	
500-155886-6	T03S	Total/NA	Water	SM 2540C	
500-155886-7	G48S	Total/NA	Water	SM 2540C	
500-155886-8	G47S	Total/NA	Water	SM 2540C	
500-155886-9	G46S	Total/NA	Water	SM 2540C	
MB 500-464216/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-464216/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 464440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-10	T08S	Total/NA	Water	SM 2540C	
MB 500-464440/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-464440/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-155886-10 MS	T08S	Total/NA	Water	SM 2540C	
500-155886-10 DU	T08S	Total/NA	Water	SM 2540C	

Analysis Batch: 464670

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-11	T01S	Total/NA	Water	SM 2540C	
500-155886-12	R32S	Total/NA	Water	SM 2540C	
500-155886-13	R08S	Total/NA	Water	SM 2540C	
MB 500-464670/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-464670/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 464670 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-11 MS	T01S	Total/NA	Water	SM 2540C	
500-155886-11 DU	T01S	Total/NA	Water	SM 2540C	

Analysis Batch: 464947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-14	T02S	Total/NA	Water	SM 2540C	
500-155886-15	DUP	Total/NA	Water	SM 2540C	
500-155886-16	G30S	Total/NA	Water	SM 2540C	
MB 500-464947/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-464947/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-155886-14 DU	T02S	Total/NA	Water	SM 2540C	

Analysis Batch: 465004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total/NA	Water	SM 4500 F C	
500-155886-2	G20S	Total/NA	Water	SM 4500 F C	
500-155886-3	G31S	Total/NA	Water	SM 4500 F C	
500-155886-4	G33S	Total/NA	Water	SM 4500 F C	
500-155886-5	G44S	Total/NA	Water	SM 4500 F C	
500-155886-6	T03S	Total/NA	Water	SM 4500 F C	
500-155886-7	G48S	Total/NA	Water	SM 4500 F C	
500-155886-8	G47S	Total/NA	Water	SM 4500 F C	
500-155886-9	G46S	Total/NA	Water	SM 4500 F C	
500-155886-10	T08S	Total/NA	Water	SM 4500 F C	
500-155886-11	T01S	Total/NA	Water	SM 4500 F C	
500-155886-12	R32S	Total/NA	Water	SM 4500 F C	
500-155886-13	R08S	Total/NA	Water	SM 4500 F C	
500-155886-14	T02S	Total/NA	Water	SM 4500 F C	
500-155886-15	DUP	Total/NA	Water	SM 4500 F C	
500-155886-16	G30S	Total/NA	Water	SM 4500 F C	
MB 500-465004/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-465004/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-465004/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-465004/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-155886-16 MS	G30S	Total/NA	Water	SM 4500 F C	
500-155886-16 MSD	G30S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 465381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-17	T09S	Total/NA	Water	SM 2540C	
500-155886-18	T06S	Total/NA	Water	SM 2540C	
MB 500-465381/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-465381/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-155886-17 DU	T09S	Total/NA	Water	SM 2540C	

Analysis Batch: 465648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-19	T05S	Total/NA	Water	SM 2540C	
500-155886-20	T04S	Total/NA	Water	SM 2540C	
MB 500-465648/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-465648/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 465648 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-19 DU	T05S	Total/NA	Water	SM 2540C	

Analysis Batch: 465757

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total/NA	Water	SM 4500 SO4 E	
500-155886-2	G20S	Total/NA	Water	SM 4500 SO4 E	
500-155886-3	G31S	Total/NA	Water	SM 4500 SO4 E	
500-155886-4	G33S	Total/NA	Water	SM 4500 SO4 E	
500-155886-5	G44S	Total/NA	Water	SM 4500 SO4 E	
500-155886-6	T03S	Total/NA	Water	SM 4500 SO4 E	
500-155886-7	G48S	Total/NA	Water	SM 4500 SO4 E	
500-155886-8	G47S	Total/NA	Water	SM 4500 SO4 E	
500-155886-9	G46S	Total/NA	Water	SM 4500 SO4 E	
500-155886-10	T08S	Total/NA	Water	SM 4500 SO4 E	
500-155886-11	T01S	Total/NA	Water	SM 4500 SO4 E	
500-155886-12	R32S	Total/NA	Water	SM 4500 SO4 E	
500-155886-13	R08S	Total/NA	Water	SM 4500 SO4 E	
MB 500-465757/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-465757/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-155886-6 MS	T03S	Total/NA	Water	SM 4500 SO4 E	
500-155886-6 MSD	T03S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 465801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-17	T09S	Total/NA	Water	SM 4500 F C	
500-155886-18	T06S	Total/NA	Water	SM 4500 F C	
500-155886-19	T05S	Total/NA	Water	SM 4500 F C	
500-155886-20	T04S	Total/NA	Water	SM 4500 F C	
MB 500-465801/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-465801/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 465929

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-14	T02S	Total/NA	Water	SM 4500 SO4 E	
500-155886-15	DUP	Total/NA	Water	SM 4500 SO4 E	
500-155886-16	G30S	Total/NA	Water	SM 4500 SO4 E	
MB 500-465929/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-465929/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 466663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-2	G20S	Total/NA	Water	SM 4500 Cl- E	
500-155886-4	G33S	Total/NA	Water	SM 4500 Cl- E	
500-155886-5	G44S	Total/NA	Water	SM 4500 Cl- E	
MB 500-466663/19	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-466663/20	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-155886-2 MS	G20S	Total/NA	Water	SM 4500 Cl- E	
500-155886-2 MSD	G20S	Total/NA	Water	SM 4500 Cl- E	
500-155886-4 MS	G33S	Total/NA	Water	SM 4500 Cl- E	
500-155886-4 MSD	G33S	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 466833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total/NA	Water	SM 4500 Cl- E	
MB 500-466833/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-466833/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 466873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-3	G31S	Total/NA	Water	SM 4500 Cl- E	
500-155886-6	T03S	Total/NA	Water	SM 4500 Cl- E	
500-155886-7	G48S	Total/NA	Water	SM 4500 Cl- E	
500-155886-8	G47S	Total/NA	Water	SM 4500 Cl- E	
500-155886-9	G46S	Total/NA	Water	SM 4500 Cl- E	
500-155886-10	T08S	Total/NA	Water	SM 4500 Cl- E	
500-155886-11	T01S	Total/NA	Water	SM 4500 Cl- E	
500-155886-12	R32S	Total/NA	Water	SM 4500 Cl- E	
500-155886-13	R08S	Total/NA	Water	SM 4500 Cl- E	
500-155886-14	T02S	Total/NA	Water	SM 4500 Cl- E	
500-155886-15	DUP	Total/NA	Water	SM 4500 Cl- E	
500-155886-16	G30S	Total/NA	Water	SM 4500 Cl- E	
500-155886-17	T09S	Total/NA	Water	SM 4500 Cl- E	
500-155886-18	T06S	Total/NA	Water	SM 4500 Cl- E	
500-155886-19	T05S	Total/NA	Water	SM 4500 Cl- E	
500-155886-20	T04S	Total/NA	Water	SM 4500 Cl- E	
MB 500-466873/24	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-466873/25	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-155886-11 MS	T01S	Total/NA	Water	SM 4500 Cl- E	
500-155886-11 MSD	T01S	Total/NA	Water	SM 4500 Cl- E	
500-155886-12 MS	R32S	Total/NA	Water	SM 4500 Cl- E	
500-155886-12 MSD	R32S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 467017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-17	T09S	Total/NA	Water	SM 4500 SO4 E	
500-155886-18	T06S	Total/NA	Water	SM 4500 SO4 E	
500-155886-19	T05S	Total/NA	Water	SM 4500 SO4 E	
500-155886-20	T04S	Total/NA	Water	SM 4500 SO4 E	
MB 500-467017/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-467017/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Field Service / Mobile Lab

Analysis Batch: 467138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-1	G45S	Total/NA	Water	Field Sampling	
500-155886-2	G20S	Total/NA	Water	Field Sampling	
500-155886-3	G31S	Total/NA	Water	Field Sampling	
500-155886-4	G33S	Total/NA	Water	Field Sampling	
500-155886-5	G44S	Total/NA	Water	Field Sampling	
500-155886-6	T03S	Total/NA	Water	Field Sampling	
500-155886-7	G48S	Total/NA	Water	Field Sampling	
500-155886-8	G47S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 467138 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-155886-9	G46S	Total/NA	Water	Field Sampling	
500-155886-10	T08S	Total/NA	Water	Field Sampling	
500-155886-11	T01S	Total/NA	Water	Field Sampling	
500-155886-12	R32S	Total/NA	Water	Field Sampling	
500-155886-13	R08S	Total/NA	Water	Field Sampling	
500-155886-14	T02S	Total/NA	Water	Field Sampling	
500-155886-15	DUP	Total/NA	Water	Field Sampling	
500-155886-16	G30S	Total/NA	Water	Field Sampling	
500-155886-17	T09S	Total/NA	Water	Field Sampling	
500-155886-18	T06S	Total/NA	Water	Field Sampling	
500-155886-19	T05S	Total/NA	Water	Field Sampling	
500-155886-20	T04S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-463829/1-A
Matrix: Water
Analysis Batch: 464008

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 463829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/10/18 07:56	12/10/18 21:06	1

Lab Sample ID: LCS 500-463829/2-A
Matrix: Water
Analysis Batch: 464008

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 463829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.525		mg/L		105	80 - 120

Lab Sample ID: MB 500-464173/1-A
Matrix: Water
Analysis Batch: 464449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464173

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/11/18 16:45	12/12/18 20:52	1

Lab Sample ID: LCS 500-464173/2-A
Matrix: Water
Analysis Batch: 464449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464173

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.481		mg/L		96	80 - 120

Lab Sample ID: MB 500-464229/1-A
Matrix: Water
Analysis Batch: 464449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/12/18 07:20	12/12/18 21:21	1

Lab Sample ID: LCS 500-464229/2-A
Matrix: Water
Analysis Batch: 464449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.491		mg/L		98	80 - 120

Lab Sample ID: MB 500-464470/1-A
Matrix: Water
Analysis Batch: 464675

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/13/18 08:43	12/13/18 17:39	1

Lab Sample ID: LCS 500-464470/2-A
Matrix: Water
Analysis Batch: 464675

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.544		mg/L		109	80 - 120

Lab Sample ID: MB 500-464864/1-A
Matrix: Water
Analysis Batch: 465058

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/14/18 16:39	12/17/18 11:52	1

Lab Sample ID: LCS 500-464864/2-A
Matrix: Water
Analysis Batch: 465058

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.517		mg/L		103	80 - 120

Lab Sample ID: 500-155886-11 MS
Matrix: Water
Analysis Batch: 465058

Client Sample ID: T01S
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.018		0.500	0.518		mg/L		100	75 - 125

Lab Sample ID: 500-155886-11 MSD
Matrix: Water
Analysis Batch: 465058

Client Sample ID: T01S
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.018		0.500	0.519		mg/L		100	75 - 125	0	20

Lab Sample ID: 500-155886-11 DU
Matrix: Water
Analysis Batch: 465058

Client Sample ID: T01S
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.018		0.0187		mg/L		2	20

Lab Sample ID: MB 500-465177/1-A
Matrix: Water
Analysis Batch: 465374

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465177

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/18/18 07:45	12/18/18 20:49	1

Lab Sample ID: LCS 500-465177/2-A
Matrix: Water
Analysis Batch: 465374

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465177

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.499		mg/L		100	80 - 120

Lab Sample ID: MB 500-465384/1-A
Matrix: Water
Analysis Batch: 465562

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465384

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/19/18 07:35	12/19/18 13:31	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-465384/2-A
Matrix: Water
Analysis Batch: 465562

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.521		mg/L		104	80 - 120

Lab Sample ID: MB 500-465795/1-A
Matrix: Water
Analysis Batch: 466123

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/20/18 16:20	12/21/18 20:30	1

Lab Sample ID: LCS 500-465795/2-A
Matrix: Water
Analysis Batch: 466123

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.476		mg/L		95	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-463829/1-A
Matrix: Water
Analysis Batch: 464030

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 463829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/10/18 07:56	12/11/18 00:17	1
Barium	<0.0025		0.0025		mg/L		12/10/18 07:56	12/11/18 00:17	1
Boron	<0.050		0.050		mg/L		12/10/18 07:56	12/11/18 00:17	1
Calcium	<0.20		0.20		mg/L		12/10/18 07:56	12/11/18 00:17	1
Cobalt	<0.0010		0.0010		mg/L		12/10/18 07:56	12/11/18 00:17	1
Molybdenum	<0.0050		0.0050		mg/L		12/10/18 07:56	12/11/18 00:17	1
Selenium	<0.0025		0.0025		mg/L		12/10/18 07:56	12/11/18 00:17	1

Lab Sample ID: MB 500-463829/1-A
Matrix: Water
Analysis Batch: 464134

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 463829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	<0.00050		0.00050		mg/L		12/10/18 07:56	12/11/18 12:50	1

Lab Sample ID: LCS 500-463829/2-A
Matrix: Water
Analysis Batch: 464030

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 463829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0934		mg/L		93	80 - 120
Barium	2.00	2.02		mg/L		101	80 - 120
Boron	1.00	0.919		mg/L		92	80 - 120
Calcium	10.0	9.25		mg/L		92	80 - 120
Cobalt	0.500	0.493		mg/L		99	80 - 120
Molybdenum	1.00	0.943		mg/L		94	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-463829/2-A
Matrix: Water
Analysis Batch: 464030

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 463829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Selenium	0.100	0.0946		mg/L		95	80 - 120

Lab Sample ID: LCS 500-463829/2-A
Matrix: Water
Analysis Batch: 464134

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 463829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: MB 500-464173/1-A
Matrix: Water
Analysis Batch: 464479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464173

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/11/18 16:45	12/12/18 15:39	1
Barium	<0.0025		0.0025		mg/L		12/11/18 16:45	12/12/18 15:39	1
Boron	<0.050		0.050		mg/L		12/11/18 16:45	12/12/18 15:39	1
Calcium	<0.20		0.20		mg/L		12/11/18 16:45	12/12/18 15:39	1
Cobalt	<0.0010		0.0010		mg/L		12/11/18 16:45	12/12/18 15:39	1
Lead	<0.00050		0.00050		mg/L		12/11/18 16:45	12/12/18 15:39	1
Molybdenum	<0.0050		0.0050		mg/L		12/11/18 16:45	12/12/18 15:39	1
Selenium	<0.0025		0.0025		mg/L		12/11/18 16:45	12/12/18 15:39	1

Lab Sample ID: LCS 500-464173/2-A
Matrix: Water
Analysis Batch: 464479

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464173

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0935		mg/L		94	80 - 120
Barium	2.00	2.00		mg/L		100	80 - 120
Boron	1.00	0.902		mg/L		90	80 - 120
Calcium	10.0	8.73		mg/L		87	80 - 120
Cobalt	0.500	0.498		mg/L		100	80 - 120
Lead	0.100	0.103		mg/L		103	80 - 120
Molybdenum	1.00	0.954		mg/L		95	80 - 120
Selenium	0.100	0.0919		mg/L		92	80 - 120

Lab Sample ID: MB 500-464229/1-A
Matrix: Water
Analysis Batch: 464479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/12/18 07:20	12/12/18 17:57	1
Barium	<0.0025		0.0025		mg/L		12/12/18 07:20	12/12/18 17:57	1
Boron	<0.050		0.050		mg/L		12/12/18 07:20	12/12/18 17:57	1
Calcium	<0.20		0.20		mg/L		12/12/18 07:20	12/12/18 17:57	1
Cobalt	<0.0010		0.0010		mg/L		12/12/18 07:20	12/12/18 17:57	1
Lead	<0.00050		0.00050		mg/L		12/12/18 07:20	12/12/18 17:57	1
Molybdenum	<0.0050		0.0050		mg/L		12/12/18 07:20	12/12/18 17:57	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-464229/1-A
Matrix: Water
Analysis Batch: 464479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0025		0.0025		mg/L		12/12/18 07:20	12/12/18 17:57	1

Lab Sample ID: LCS 500-464229/2-A
Matrix: Water
Analysis Batch: 464479

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0963		mg/L		96	80 - 120
Barium	2.00	2.15		mg/L		108	80 - 120
Boron	1.00	0.971		mg/L		97	80 - 120
Calcium	10.0	9.28		mg/L		93	80 - 120
Cobalt	0.500	0.539		mg/L		108	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120
Molybdenum	1.00	0.991		mg/L		99	80 - 120
Selenium	0.100	0.0944		mg/L		94	80 - 120

Lab Sample ID: MB 500-464470/1-A
Matrix: Water
Analysis Batch: 464726

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/13/18 08:43	12/13/18 20:05	1
Barium	<0.0025		0.0025		mg/L		12/13/18 08:43	12/13/18 20:05	1
Calcium	<0.20		0.20		mg/L		12/13/18 08:43	12/13/18 20:05	1
Cobalt	<0.0010		0.0010		mg/L		12/13/18 08:43	12/13/18 20:05	1
Molybdenum	<0.0050		0.0050		mg/L		12/13/18 08:43	12/13/18 20:05	1
Selenium	<0.0025		0.0025		mg/L		12/13/18 08:43	12/13/18 20:05	1

Lab Sample ID: MB 500-464470/1-A
Matrix: Water
Analysis Batch: 464840

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464470

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/13/18 08:43	12/14/18 12:25	1
Lead	<0.00050		0.00050		mg/L		12/13/18 08:43	12/14/18 12:25	1

Lab Sample ID: LCS 500-464470/2-A
Matrix: Water
Analysis Batch: 464726

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0942		mg/L		94	80 - 120
Barium	2.00	2.06		mg/L		103	80 - 120
Calcium	10.0	8.83		mg/L		88	80 - 120
Cobalt	0.500	0.500		mg/L		100	80 - 120
Molybdenum	1.00	0.965		mg/L		96	80 - 120
Selenium	0.100	0.0944		mg/L		94	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-464470/2-A
Matrix: Water
Analysis Batch: 464840

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464470

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.997		mg/L		100	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: MB 500-464864/1-A
Matrix: Water
Analysis Batch: 465210

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/14/18 16:39	12/17/18 20:10	1
Barium	<0.0025		0.0025		mg/L		12/14/18 16:39	12/17/18 20:10	1
Boron	<0.050		0.050		mg/L		12/14/18 16:39	12/17/18 20:10	1
Calcium	<0.20		0.20		mg/L		12/14/18 16:39	12/17/18 20:10	1
Cobalt	<0.0010		0.0010		mg/L		12/14/18 16:39	12/17/18 20:10	1
Lead	<0.00050		0.00050		mg/L		12/14/18 16:39	12/17/18 20:10	1
Molybdenum	<0.0050		0.0050		mg/L		12/14/18 16:39	12/17/18 20:10	1
Selenium	<0.0025		0.0025		mg/L		12/14/18 16:39	12/17/18 20:10	1

Lab Sample ID: LCS 500-464864/2-A
Matrix: Water
Analysis Batch: 465210

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0962		mg/L		96	80 - 120
Barium	2.00	2.05		mg/L		103	80 - 120
Boron	1.00	0.894		mg/L		89	80 - 120
Calcium	10.0	9.68		mg/L		97	80 - 120
Cobalt	0.500	0.491		mg/L		98	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.956		mg/L		96	80 - 120
Selenium	0.100	0.0916		mg/L		92	80 - 120

Lab Sample ID: 500-155886-11 MS
Matrix: Water
Analysis Batch: 465210

Client Sample ID: T01S
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.016		0.100	0.120		mg/L		103	75 - 125
Barium	0.084		2.00	2.08		mg/L		100	75 - 125
Boron	3.3	F1	1.00	3.94	F1	mg/L		63	75 - 125
Calcium	56		10.0	62.6	4	mg/L		64	75 - 125
Cobalt	0.0037		0.500	0.407		mg/L		81	75 - 125
Lead	0.0053		0.100	0.104		mg/L		99	75 - 125
Molybdenum	0.30		1.00	1.27		mg/L		98	75 - 125
Selenium	<0.0025		0.100	0.0930		mg/L		92	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-155886-11 MSD
Matrix: Water
Analysis Batch: 465210

Client Sample ID: T01S
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.016		0.100	0.116		mg/L		100	75 - 125	3	20
Barium	0.084		2.00	2.02		mg/L		97	75 - 125	3	20
Boron	3.3	F1	1.00	3.88	F1	mg/L		57	75 - 125	2	20
Calcium	56		10.0	61.5	4	mg/L		53	75 - 125	2	20
Cobalt	0.0037		0.500	0.401		mg/L		79	75 - 125	2	20
Lead	0.0053		0.100	0.101		mg/L		96	75 - 125	3	20
Molybdenum	0.30		1.00	1.24		mg/L		94	75 - 125	3	20
Selenium	<0.0025		0.100	0.0908		mg/L		90	75 - 125	2	20

Lab Sample ID: 500-155886-11 DU
Matrix: Water
Analysis Batch: 465210

Client Sample ID: T01S
Prep Type: Total Recoverable
Prep Batch: 464864

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.016		0.0161		mg/L		1	20
Barium	0.084		0.0829		mg/L		2	20
Boron	3.3	F1	3.44		mg/L		4	20
Calcium	56		57.6		mg/L		2	20
Cobalt	0.0037		0.00378		mg/L		1	20
Lead	0.0053		0.00523		mg/L		2	20
Molybdenum	0.30		0.298		mg/L		0.2	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: MB 500-465177/1-A
Matrix: Water
Analysis Batch: 465410

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465177

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/18/18 07:45	12/18/18 20:20	1
Barium	<0.0025		0.0025		mg/L		12/18/18 07:45	12/18/18 20:20	1
Calcium	<0.20		0.20		mg/L		12/18/18 07:45	12/18/18 20:20	1
Cobalt	<0.0010		0.0010		mg/L		12/18/18 07:45	12/18/18 20:20	1
Lead	<0.00050		0.00050		mg/L		12/18/18 07:45	12/18/18 20:20	1
Molybdenum	<0.0050		0.0050		mg/L		12/18/18 07:45	12/18/18 20:20	1
Selenium	<0.0025		0.0025		mg/L		12/18/18 07:45	12/18/18 20:20	1

Lab Sample ID: MB 500-465177/1-A
Matrix: Water
Analysis Batch: 465552

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465177

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/18/18 07:45	12/19/18 12:15	1

Lab Sample ID: LCS 500-465177/2-A
Matrix: Water
Analysis Batch: 465410

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465177

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0944		mg/L		94	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-465177/2-A
Matrix: Water
Analysis Batch: 465410

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465177

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.01		mg/L		101	80 - 120
Calcium	10.0	9.51		mg/L		95	80 - 120
Cobalt	0.500	0.501		mg/L		100	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.959		mg/L		96	80 - 120
Selenium	0.100	0.0954		mg/L		95	80 - 120

Lab Sample ID: LCS 500-465177/2-A
Matrix: Water
Analysis Batch: 465552

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465177

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.950		mg/L		95	80 - 120

Lab Sample ID: MB 500-465384/1-A
Matrix: Water
Analysis Batch: 465688

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465384

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/19/18 07:35	12/19/18 16:44	1
Barium	<0.0025		0.0025		mg/L		12/19/18 07:35	12/19/18 16:44	1
Boron	<0.050		0.050		mg/L		12/19/18 07:35	12/19/18 16:44	1
Calcium	<0.20		0.20		mg/L		12/19/18 07:35	12/19/18 16:44	1
Cobalt	<0.0010		0.0010		mg/L		12/19/18 07:35	12/19/18 16:44	1
Lead	<0.00050		0.00050		mg/L		12/19/18 07:35	12/19/18 16:44	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/18 07:35	12/19/18 16:44	1
Selenium	<0.0025		0.0025		mg/L		12/19/18 07:35	12/19/18 16:44	1

Lab Sample ID: LCS 500-465384/2-A
Matrix: Water
Analysis Batch: 465688

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465384

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0916		mg/L		92	80 - 120
Barium	2.00	1.92		mg/L		96	80 - 120
Boron	1.00	0.941		mg/L		94	80 - 120
Calcium	10.0	9.00		mg/L		90	80 - 120
Cobalt	0.500	0.480		mg/L		96	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Molybdenum	1.00	0.933		mg/L		93	80 - 120
Selenium	0.100	0.0908		mg/L		91	80 - 120

Lab Sample ID: MB 500-465795/1-A
Matrix: Water
Analysis Batch: 466297

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/20/18 16:20	12/24/18 19:13	1
Barium	<0.0025		0.0025		mg/L		12/20/18 16:20	12/24/18 19:13	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-465795/1-A
Matrix: Water
Analysis Batch: 466297

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 465795

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/20/18 16:20	12/24/18 19:13	1
Calcium	<0.20		0.20		mg/L		12/20/18 16:20	12/24/18 19:13	1
Cobalt	<0.0010		0.0010		mg/L		12/20/18 16:20	12/24/18 19:13	1
Lead	<0.00050		0.00050		mg/L		12/20/18 16:20	12/24/18 19:13	1
Molybdenum	<0.0050		0.0050		mg/L		12/20/18 16:20	12/24/18 19:13	1
Selenium	<0.0025		0.0025		mg/L		12/20/18 16:20	12/24/18 19:13	1

Lab Sample ID: LCS 500-465795/2-A
Matrix: Water
Analysis Batch: 466297

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 465795

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0955		mg/L		95	80 - 120
Barium	2.00	2.07		mg/L		103	80 - 120
Boron	1.00	1.03		mg/L		103	80 - 120
Calcium	10.0	8.98		mg/L		90	80 - 120
Cobalt	0.500	0.531		mg/L		106	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	0.953		mg/L		95	80 - 120
Selenium	0.100	0.0942		mg/L		94	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-463760/1
Matrix: Water
Analysis Batch: 463760

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/08/18 13:02	1

Lab Sample ID: LCS 500-463760/2
Matrix: Water
Analysis Batch: 463760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	284		mg/L		114	80 - 120

Lab Sample ID: MB 500-464216/1
Matrix: Water
Analysis Batch: 464216

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/12/18 02:08	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-464216/2
Matrix: Water
Analysis Batch: 464216

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	244		mg/L		98	80 - 120

Lab Sample ID: MB 500-464440/1
Matrix: Water
Analysis Batch: 464440

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/13/18 06:19	1

Lab Sample ID: LCS 500-464440/2
Matrix: Water
Analysis Batch: 464440

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	266		mg/L		106	80 - 120

Lab Sample ID: 500-155886-10 MS
Matrix: Water
Analysis Batch: 464440

Client Sample ID: T08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	950		250	1230		mg/L		113	75 - 125

Lab Sample ID: 500-155886-10 DU
Matrix: Water
Analysis Batch: 464440

Client Sample ID: T08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	950		956		mg/L		1	5

Lab Sample ID: MB 500-464670/1
Matrix: Water
Analysis Batch: 464670

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/14/18 07:02	1

Lab Sample ID: LCS 500-464670/2
Matrix: Water
Analysis Batch: 464670

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	272		mg/L		109	80 - 120

Lab Sample ID: 500-155886-11 MS
Matrix: Water
Analysis Batch: 464670

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	900		250	1170		mg/L		105	75 - 125

Lab Sample ID: 500-155886-11 DU — **Client Sample ID: T01S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 464670

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	900		922		mg/L		2	5

Lab Sample ID: MB 500-464947/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 464947

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/17/18 04:57	1

Lab Sample ID: LCS 500-464947/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 464947

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	268		mg/L		107	80 - 120

Lab Sample ID: 500-155886-14 DU — **Client Sample ID: T02S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 464947

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	870		860		mg/L		1	5

Lab Sample ID: MB 500-465381/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 465381

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/19/18 06:00	1

Lab Sample ID: LCS 500-465381/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 465381

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	280		mg/L		112	80 - 120

Lab Sample ID: 500-155886-17 DU — **Client Sample ID: T09S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 465381

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1000		994		mg/L		3	5

Lab Sample ID: MB 500-465648/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 465648

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/20/18 07:15	1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCS 500-465648/2
Matrix: Water
Analysis Batch: 465648

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	264		mg/L		106	80 - 120

Lab Sample ID: 500-155886-19 DU
Matrix: Water
Analysis Batch: 465648

Client Sample ID: T05S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1600		1560		mg/L		1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-466663/19
Matrix: Water
Analysis Batch: 466663

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/27/18 15:27	1

Lab Sample ID: LCS 500-466663/20
Matrix: Water
Analysis Batch: 466663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.2		mg/L		102	85 - 115

Lab Sample ID: 500-155886-2 MS
Matrix: Water
Analysis Batch: 466663

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12		50.0	58.6		mg/L		92	75 - 125

Lab Sample ID: 500-155886-2 MSD
Matrix: Water
Analysis Batch: 466663

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12		50.0	58.7		mg/L		92	75 - 125	0	20

Lab Sample ID: 500-155886-4 MS
Matrix: Water
Analysis Batch: 466663

Client Sample ID: G33S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.3		50.0	45.0		mg/L		77	75 - 125

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 500-155886-4 MSD — **Client Sample ID: G33S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466663

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.3		50.0	45.9		mg/L		79	75 - 125	2	20

Lab Sample ID: MB 500-466833/12 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466833

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/28/18 13:05	1

Lab Sample ID: LCS 500-466833/13 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466833

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.5		mg/L		105	85 - 115

Lab Sample ID: MB 500-466873/24 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466873

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/28/18 15:03	1

Lab Sample ID: LCS 500-466873/25 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.6		mg/L		103	85 - 115

Lab Sample ID: 500-155886-11 MS — **Client Sample ID: T01S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466873

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	152		mg/L		91	75 - 125

Lab Sample ID: 500-155886-11 MSD — **Client Sample ID: T01S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466873

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	160		mg/L		107	75 - 125	5	20

Lab Sample ID: 500-155886-12 MS — **Client Sample ID: R32S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 466873

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	72	F1	50.0	104	F1	mg/L		64	75 - 125

Lab Sample ID: 500-155886-12 MSD
Matrix: Water
Analysis Batch: 466873

Client Sample ID: R32S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	72	F1	50.0	102	F1	mg/L		60	75 - 125	2	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-465004/3
Matrix: Water
Analysis Batch: 465004

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/15/18 16:52	1

Lab Sample ID: MB 500-465004/31
Matrix: Water
Analysis Batch: 465004

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/15/18 18:32	1

Lab Sample ID: LCS 500-465004/32
Matrix: Water
Analysis Batch: 465004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.8		mg/L		108	80 - 120

Lab Sample ID: LCS 500-465004/4
Matrix: Water
Analysis Batch: 465004

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.5		mg/L		105	80 - 120

Lab Sample ID: 500-155886-16 MS
Matrix: Water
Analysis Batch: 465004

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.2		5.00	6.51		mg/L		107	75 - 125

Lab Sample ID: 500-155886-16 MSD
Matrix: Water
Analysis Batch: 465004

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.2		5.00	6.54		mg/L		107	75 - 125	0	20

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 500-465801/3
Matrix: Water
Analysis Batch: 465801

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/20/18 12:19	1

Lab Sample ID: LCS 500-465801/4
Matrix: Water
Analysis Batch: 465801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Fluoride			10.0	10.5		mg/L		105	80 - 120		

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-465757/3
Matrix: Water
Analysis Batch: 465757

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/20/18 14:14	1

Lab Sample ID: LCS 500-465757/4
Matrix: Water
Analysis Batch: 465757

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	20.1		mg/L		101	80 - 120		

Lab Sample ID: 500-155886-6 MS
Matrix: Water
Analysis Batch: 465757

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	160		400	514		mg/L		88	75 - 125		

Lab Sample ID: 500-155886-6 MSD
Matrix: Water
Analysis Batch: 465757

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	160		400	579		mg/L		104	75 - 125	12	20

Lab Sample ID: MB 500-465929/3
Matrix: Water
Analysis Batch: 465929

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/21/18 11:22	1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 500-465929/4
Matrix: Water
Analysis Batch: 465929

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.3		mg/L		97	80 - 120

Lab Sample ID: MB 500-467017/3
Matrix: Water
Analysis Batch: 467017

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/31/18 00:18	1

Lab Sample ID: LCS 500-467017/4
Matrix: Water
Analysis Batch: 467017

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.9		mg/L		104	80 - 120

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-155886

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 0.0-72.2

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4Q18 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Rob P.
Lab PM: Eric Lang

| Lab ID | MS/MSD | Sample ID | Sampling Date | Sampling Time | # of Containers | Matrix | Preservative | | | Parameter | | |

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-155886 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-155886

Chain of Custody Number:

Page ____ of ____

48 qt.

Temperature °C of Cooler: 1.9 → 4.1

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4Q18 GW
Project Location/State: Joliet, IL.
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative								Parameter			Comments
							3	8	3						Radium 226/228	Cl, F, SO4, TDS	Total Metals Ca, Ag, Ba, Co, Pb, Li, Mo, Se	
3		G31S	12/10/18	1030	5	W	✓	✓	✓						✓	✓	✓	
4		G33S	12/10/18	1232	5	W	✓	✓	✓						✓	✓	✓	
5		G44S	12/10/18	1421	5	W	✓	✓	✓						✓	✓	✓	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	T&L	12/10/18	1540	[signature]	TA CHI	12/10/18	1540
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

1/4/2019

TestAmerica

THE LEADER IN ENVIRONMENTA'

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-155886 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-155886

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.1, 2.6, 3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4618 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Joe L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals B, Ca, As, Ba, Co, Pb, Li, Mo, Se	Cl, F, SO4, TDS						Comments
6		T03S	12/11/18	0938	5	W		✓	✓	✓						
7		G48S	12/11/18	1102	5	W		✓	✓	✓						
8		G47S	12/11/18	1311	5	W		✓	✓	✓						
9		G46S	12/11/18	1425	5	W		✓	✓	✓						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	12/11/18	1540	[signature]	TA-CHI	12/11/18	1540
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-155886

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 0.8-3.0

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4Q18 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe Ly, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals B, Ca, As, Ba, Co, Pb, Li, Mo, Se	Cl, Fl, SO4, TDS						
10		TOBS	12/12/18	0946	5	W		—	—	—						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

500-155886 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	12/12/18	1145	[illegible]	TALHE	12/12/18	1145
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTA

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-155886 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-155886

Chain of Custody Number:

Page _____ of _____

48qt. Temperature °C of Cooler: 1.9 → 4.1

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4Q18 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative: 3	3	8							Comments
							Parameter: 226/228 Radium	Total metals B, Ca, Ag, Ba, Co, Pb, Li, Mo, Se	Cl, Fl, SO4, TDS							
11		T015	12/13/18	0925	5	W	✓	✓	✓							
12		R325	12/13/18	1339	5	W	✓	✓	✓							
13		R085	12/13/18	1430	5	W	✓	✓	✓							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TA	12/13/18	1545	[signature]	TA-CHI	12/13/18	1545
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 6
Phone: 708.534.5200 Fax: 708.53

500-155886 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-155886

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 0.4 → 2.6

Client	Client Project #
Midwest Generation EME LLC	
Project Name	
Joliet #9 CCR - 4018 GW	
Project Location/State	Lab Project #
Joliet, IL.	
Sampler	Lab PM
Noe L., Rob P.	Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						Comments
							Parameter	Radium 226/228	Total Metals (Ba, Ca, As, B, Co, Pb, Li, Mo, Se)	Cl, Fl, SO4, TDS						
14		TO2S	12/14/18	0944	5	W		—	—	—						
15		DUP (of TO2S)	12/14/18	0944	5	W		—	—	—						
16		G30S	12/14/18	1403	5	W		—	—	—						

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TAL	12/14/18	1540	[illegible] Scott	TA-CHI	12/14/18	1540

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

1/4/2019

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: ~~500-155886~~ AS 12/18/18 155886
Chain of Custody Number:

Page ____ of ____
Temperature °C of Cooler: 25

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 4Q18 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8							
							Parameter	Radium 226/228	Total Metals B, Ca, As, Ba, Co, Pb, Li, Mo, Se	Cl, Fl, SO4, TDS							Comments
17		TO9S	12/18/18	1108	5	W		—	—	—							
18		TO6S	12/18/18	1320	5	W		—	—	—							

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

500-155886 COC

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	12/18/18	1550	[signature]	TALHE	12/18/18	1550
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

1/4/2019

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534.

500-155886 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-155886

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 2.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-4Q18 GW
Project Location/State: Joliet, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	8						
							Parameter	Radium 226/228	Total Metals Ba, Ca, As, Co, Pb, Li, Mo, Se	Cl, F, SO4, TDS						Comments
19		TOSS	12/19/18	0927	5	W		1	1	1						
20		TO4S	12/19/18	1225	5	W		1	1	1						

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	12/19/18	1532	[signature]	TA-CHI	12/19/18	1522
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-155886-1

Login Number: 155886
List Number: 1
Creator: Sanchez, Ariel M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2,4.1,2.2,2.3, 3.0,4.1, 2.5,2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G45S

Date Collected: 12/07/18 10:06
Date Received: 12/07/18 16:00

Lab Sample ID: 500-155886-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			463829	12/10/18 07:56	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	464008	12/10/18 21:14	EEN	TAL CHI
Total Recoverable	Prep	3005A			463829	12/10/18 07:56	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464134	12/11/18 13:12	FXG	TAL CHI
Total Recoverable	Prep	3005A			463829	12/10/18 07:56	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464030	12/11/18 01:46	PFK	TAL CHI
Total/NA	Analysis	SM 2540C		1	463760	12/08/18 13:48	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466833	12/28/18 13:19	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:24	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	465757		CLB	TAL CHI
					(Start)	12/20/18 14:19		
					(End)	12/20/18 14:20		
Total/NA	Analysis	Field Sampling		1	467138	12/07/18 10:06	JVB	TAL CHI

Client Sample ID: G20S

Date Collected: 12/07/18 11:25
Date Received: 12/07/18 16:00

Lab Sample ID: 500-155886-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			463829	12/10/18 07:56	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	464008	12/10/18 21:18	EEN	TAL CHI
Total Recoverable	Prep	3005A			463829	12/10/18 07:56	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464134	12/11/18 13:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			463829	12/10/18 07:56	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464030	12/11/18 01:50	PFK	TAL CHI
Total/NA	Analysis	SM 2540C		1	463760	12/08/18 13:51	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	466663	12/27/18 15:31	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	465757		CLB	TAL CHI
					(Start)	12/20/18 14:20		
					(End)	12/20/18 14:21		
Total/NA	Analysis	Field Sampling		1	467138	12/07/18 11:25	JVB	TAL CHI

Client Sample ID: G31S

Date Collected: 12/10/18 10:30
Date Received: 12/10/18 15:40

Lab Sample ID: 500-155886-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464173	12/11/18 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	464449	12/12/18 21:00	EEN	TAL CHI
Total Recoverable	Prep	3005A			464173	12/11/18 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	464479	12/12/18 17:34	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G31S

Lab Sample ID: 500-155886-3

Date Collected: 12/10/18 10:30
Matrix: Water
Date Received: 12/10/18 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	464216	12/12/18 02:36	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:39	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:21		
					(End)	12/20/18 14:22		
Total/NA	Analysis	Field Sampling		1	467138	12/10/18 10:30	JVB	TAL CHI

Client Sample ID: G33S

Lab Sample ID: 500-155886-4

Date Collected: 12/10/18 12:32
Matrix: Water
Date Received: 12/10/18 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464173	12/11/18 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	464449	12/12/18 21:12	EEN	TAL CHI
Total Recoverable	Prep	3005A			464173	12/11/18 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	464479	12/12/18 17:38	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464216	12/12/18 02:39	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	466663	12/27/18 15:37	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	465757		CLB	TAL CHI
					(Start)	12/20/18 14:22		
					(End)	12/20/18 14:23		
Total/NA	Analysis	Field Sampling		1	467138	12/10/18 12:32	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-155886-5

Date Collected: 12/10/18 14:21
Matrix: Water
Date Received: 12/10/18 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464173	12/11/18 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	464449	12/12/18 21:16	EEN	TAL CHI
Total Recoverable	Prep	3005A			464173	12/11/18 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	464479	12/12/18 17:42	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464216	12/12/18 02:41	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	466663	12/27/18 15:40	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	465757		CLB	TAL CHI
					(Start)	12/20/18 14:23		
					(End)	12/20/18 14:24		
Total/NA	Analysis	Field Sampling		1	467138	12/10/18 14:21	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T03S

Date Collected: 12/11/18 09:38
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	464449	12/12/18 21:29	EEN	TAL CHI
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464479	12/12/18 18:05	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464216	12/12/18 02:44	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:48	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	465757		CLB	TAL CHI
					(Start)	12/20/18 14:26		
					(End)	12/20/18 14:27		
Total/NA	Analysis	Field Sampling		1	467138	12/11/18 09:38	JVB	TAL CHI

Client Sample ID: G48S

Date Collected: 12/11/18 11:02
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	464449	12/12/18 21:33	EEN	TAL CHI
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464479	12/12/18 18:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	464726	12/13/18 10:48	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464216	12/12/18 02:46	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:51	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:29		
					(End)	12/20/18 14:30		
Total/NA	Analysis	Field Sampling		1	467138	12/11/18 11:02	JVB	TAL CHI

Client Sample ID: G47S

Date Collected: 12/11/18 13:11
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	464449	12/12/18 21:37	EEN	TAL CHI
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464479	12/12/18 18:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6020A		50	464726	12/13/18 10:52	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464216	12/12/18 02:49	CLB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:54	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:30		
					(End)	12/20/18 14:31		
Total/NA	Analysis	Field Sampling		1	467138	12/11/18 13:11	JVB	TAL CHI

Client Sample ID: G46S

Date Collected: 12/11/18 14:25
Date Received: 12/11/18 15:40

Lab Sample ID: 500-155886-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	464449	12/12/18 21:41	EEN	TAL CHI
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464479	12/12/18 18:16	FXG	TAL CHI
Total Recoverable	Prep	3005A			464229	12/12/18 07:20	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	464726	12/13/18 10:56	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464216	12/12/18 02:51	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 17:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:31		
					(End)	12/20/18 14:32		
Total/NA	Analysis	Field Sampling		1	467138	12/11/18 14:25	JVB	TAL CHI

Client Sample ID: T08S

Date Collected: 12/12/18 09:46
Date Received: 12/12/18 11:45

Lab Sample ID: 500-155886-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464470	12/13/18 08:43	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	464675	12/13/18 17:47	JEF	TAL CHI
Total Recoverable	Prep	3005A			464470	12/13/18 08:43	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464726	12/13/18 21:45	FXG	TAL CHI
Total Recoverable	Prep	3005A			464470	12/13/18 08:43	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	464840	12/14/18 12:32	FXG	TAL CHI
Total Recoverable	Prep	3005A			464470	12/13/18 08:43	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	464840	12/14/18 12:59	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464440	12/13/18 06:23	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 18:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:32		
					(End)	12/20/18 14:33		
Total/NA	Analysis	Field Sampling		1	467138	12/12/18 09:46	JVB	TAL CHI

Client Sample ID: T01S

Date Collected: 12/13/18 09:25
Date Received: 12/13/18 15:45

Lab Sample ID: 500-155886-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464864	12/14/18 16:39	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	465058	12/17/18 12:00	JEF	TAL CHI
Total Recoverable	Prep	3005A			464864	12/14/18 16:39	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	465210	12/17/18 20:17	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464670	12/14/18 07:07	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:50	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 18:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:33		
					(End)	12/20/18 14:34		
Total/NA	Analysis	Field Sampling		1	467138	12/13/18 09:25	JVB	TAL CHI

Client Sample ID: R32S

Date Collected: 12/13/18 13:39
Date Received: 12/13/18 15:45

Lab Sample ID: 500-155886-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464864	12/14/18 16:39	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	465058	12/17/18 12:28	JEF	TAL CHI
Total Recoverable	Prep	3005A			464864	12/14/18 16:39	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	465210	12/17/18 20:36	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464670	12/14/18 07:14	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	466873	12/28/18 15:16	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 18:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:34		
					(End)	12/20/18 14:35		
Total/NA	Analysis	Field Sampling		1	467138	12/13/18 13:39	JVB	TAL CHI

Client Sample ID: R08S

Date Collected: 12/13/18 14:30
Date Received: 12/13/18 15:45

Lab Sample ID: 500-155886-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			464864	12/14/18 16:39	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	465058	12/17/18 12:32	JEF	TAL CHI
Total Recoverable	Prep	3005A			464864	12/14/18 16:39	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	465210	12/17/18 20:40	FXG	TAL CHI
Total Recoverable	Prep	3005A			464864	12/14/18 16:39	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	465309	12/18/18 11:59	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464670	12/14/18 07:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 16:20	EAT	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: R08S

Lab Sample ID: 500-155886-13

Date Collected: 12/13/18 14:30
Matrix: Water
Date Received: 12/13/18 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 18:18	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465757		CLB	TAL CHI
					(Start)	12/20/18 14:35		
					(End)	12/20/18 14:36		
Total/NA	Analysis	Field Sampling		1	467138	12/13/18 14:30	JVB	TAL CHI

Client Sample ID: T02S

Lab Sample ID: 500-155886-14

Date Collected: 12/14/18 09:44
Matrix: Water
Date Received: 12/14/18 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	465374	12/18/18 20:57	EEN	TAL CHI
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	465410	12/18/18 20:27	FXG	TAL CHI
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6020A		10	465552	12/19/18 12:23	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464947	12/17/18 05:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:51	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 18:22	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465929		CLB	TAL CHI
					(Start)	12/21/18 11:24		
					(End)	12/21/18 11:25		
Total/NA	Analysis	Field Sampling		1	467138	12/14/18 09:44	JVB	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-155886-15

Date Collected: 12/14/18 09:44
Matrix: Water
Date Received: 12/14/18 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	465374	12/18/18 21:01	EEN	TAL CHI
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	465410	12/18/18 20:31	FXG	TAL CHI
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6020A		10	465552	12/19/18 12:27	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464947	12/17/18 05:25	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:52	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 18:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465929		CLB	TAL CHI
					(Start)	12/21/18 11:25		
					(End)	12/21/18 11:26		
Total/NA	Analysis	Field Sampling		1	467138	12/14/18 09:44	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: G30S

Lab Sample ID: 500-155886-16

Date Collected: 12/14/18 14:03

Matrix: Water

Date Received: 12/14/18 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	465374	12/18/18 21:05	EEN	TAL CHI
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	465410	12/18/18 20:35	FXG	TAL CHI
Total Recoverable	Prep	3005A			465177	12/18/18 07:45	SAH	TAL CHI
Total Recoverable	Analysis	6020A		10	465552	12/19/18 12:31	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	464947	12/17/18 05:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:54	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465004	12/15/18 18:37	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	465929		CLB	TAL CHI
					(Start)	12/21/18 11:26		
					(End)	12/21/18 11:27		
Total/NA	Analysis	Field Sampling		1	467138	12/14/18 14:03	JVB	TAL CHI

Client Sample ID: T09S

Lab Sample ID: 500-155886-17

Date Collected: 12/18/18 11:08

Matrix: Water

Date Received: 12/18/18 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465384	12/19/18 07:35	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	465562	12/19/18 13:39	JEF	TAL CHI
Total Recoverable	Prep	3005A			465384	12/19/18 07:35	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	465688	12/19/18 16:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			465384	12/19/18 07:35	SAH	TAL CHI
Total Recoverable	Analysis	6020A		10	466171	12/20/18 17:51	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	465381	12/19/18 06:23	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:54	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465801	12/20/18 13:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	467017		CLB	TAL CHI
					(Start)	12/31/18 00:34		
					(End)	12/31/18 00:35		
Total/NA	Analysis	Field Sampling		1	467138	12/18/18 11:08	JVB	TAL CHI

Client Sample ID: T06S

Lab Sample ID: 500-155886-18

Date Collected: 12/18/18 13:20

Matrix: Water

Date Received: 12/18/18 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465384	12/19/18 07:35	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	465562	12/19/18 13:43	JEF	TAL CHI
Total Recoverable	Prep	3005A			465384	12/19/18 07:35	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	465688	12/19/18 16:56	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T06S

Date Collected: 12/18/18 13:20
Date Received: 12/18/18 15:50

Lab Sample ID: 500-155886-18

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	465381	12/19/18 06:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	466873	12/28/18 15:23	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465801	12/20/18 13:11	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	467017		CLB	TAL CHI
					(Start)	12/31/18 00:35		
					(End)	12/31/18 00:36		
Total/NA	Analysis	Field Sampling		1	467138	12/18/18 13:20	JVB	TAL CHI

Client Sample ID: T05S

Date Collected: 12/19/18 09:27
Date Received: 12/19/18 15:22

Lab Sample ID: 500-155886-19

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465795	12/20/18 16:20	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	466123	12/21/18 20:38	JEF	TAL CHI
Total Recoverable	Prep	3005A			465795	12/20/18 16:20	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	466297	12/24/18 19:59	FXG	TAL CHI
Total Recoverable	Prep	3005A			465795	12/20/18 16:20	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	466417	12/26/18 13:13	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	465648	12/20/18 07:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	466873	12/28/18 15:55	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465801	12/20/18 13:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	467017		CLB	TAL CHI
					(Start)	12/31/18 00:36		
					(End)	12/31/18 00:37		
Total/NA	Analysis	Field Sampling		1	467138	12/19/18 09:27	JVB	TAL CHI

Client Sample ID: T04S

Date Collected: 12/19/18 12:25
Date Received: 12/19/18 15:22

Lab Sample ID: 500-155886-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			465795	12/20/18 16:20	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	466123	12/21/18 20:42	JEF	TAL CHI
Total Recoverable	Prep	3005A			465795	12/20/18 16:20	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	466297	12/24/18 20:03	FXG	TAL CHI
Total Recoverable	Prep	3005A			465795	12/20/18 16:20	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	466417	12/26/18 13:17	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	465648	12/20/18 07:25	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	466873	12/28/18 15:24	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	465801	12/20/18 13:18	EAT	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR - 4Q18 GW

TestAmerica Job ID: 500-155886-1

Client Sample ID: T04S
Date Collected: 12/19/18 12:25
Date Received: 12/19/18 15:22

Lab Sample ID: 500-155886-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		5	467017		CLB	TAL CHI
					(Start)	12/31/18 00:37		
					(End)	12/31/18 00:38		
Total/NA	Analysis	Field Sampling		1	467138	12/19/18 12:25	JVB	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-155886-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/07/18 Start Purge: 0950 (2400 Hr. Clock) End Purge: 1006

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.97 (ft)

Ref. Measuring Pt. TIC

Well Elevation *603.90 (ft./msl)

Water Level 66.74 (ft.)

Ground Water Elev. 537.16 (ft./msl)

Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.00	7.02	7.02	(std.)
SC	877	877	877	(umhos/cm)
Temp.	9.89	9.88	9.88	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 25°F, Sunny, SW winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 66.74 - 2.97 = 63.77 (ft.)

Levels were taken on 12/07/18 @ 0940.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-155881e-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/07/18 Start Purge: 1105 (2400 Hr. Clock) End Purge: 1125

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.91 (ft./msl)
Water Level 49.46 (ft.)
Ground Water Elev. 531.45 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.43	7.41	7.41	(std.)
SC	563	562	562	(umhos/cm)
Temp.	4.89	4.89	4.89	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 25°F, Partly Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 49.46 - 2.78 = 46.68 (ft.)
Levels were taken on 12/07/18 @ 1055.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-155886-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/10/18 Start Purge: 1010 (2400 Hr. Clock) End Purge: 1030

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.58 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.78 (ft./msl)

Water Level 25.74 (ft.)

Ground Water Elev. 510.04 (ft./msl)

Well Bottom Elevation *453.36 (ft./msl)

	1st	2nd	Final	
pH	7.15	7.17	7.17	(std.)
SC	1,287	1,282	1,282	(umhos/cm)
Temp.	12.66	12.68	12.68	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 21°F, Partly Cloudy, SW winds 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 25.74 - 2.58 = 23.16 (ft.)

Levels were taken on 12/10/18 @ 1000.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-155886-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/10/18 Start Purge: 1210 (2400 Hr. Clock) End Purge: 1232

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.57

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 1.73 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.66 (ft./msl)
Water Level 27.30 (ft.)
Ground Water Elev. 508.36 (ft./msl)
Well Bottom Elevation *452.72 (ft./msl)

	1st	2nd	Final	
pH	7.42	7.41	7.41	(std.)
SC	473	461	461	(umhos/cm)
Temp.	11.10	11.15	11.15	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Gray, Slight Turbidity, No Odor
Weather Conditions: 28°F, Partly Cloudy, SW winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 27.30 - 1.73 = 25.57 (ft.)
Levels were taken on 12/10/18 @ 1200.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry #9 CCR
Job #: 500-155886-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/10/18 Start Purge: 1400 (2400 Hr. Clock) End Purge: 1421

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.68

MEASUREMENTS

		1st	2nd	Final	
Well Diameter 2.0 (inches)	pH	6.99	6.98	6.98	(std.)
Stick Up 2.18 (ft)	SC	860	852	852	(umhos/cm)
Ref. Measuring Pt. TIC	Temp.	10.24	10.28	10.28	(°C)
Well Elevation *586.53 (ft./msl)					
Water Level 79.18 (ft.)					
Ground Water Elev. 507.35 (ft./msl)					
Well Bottom Elevation *455.11 (ft./msl)					

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 29°F, Partly Cloudy, SW winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 79.18 - 2.18 = 77.00 (ft.)

Levels were taken on 12/10/18 @ 1350.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-6

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/11/18 Start Purge: 0920 (2400 Hr. Clock) End Purge: 0938

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.89 (ft./msl)

Water Level 140.03 (ft.)

Ground Water Elev. 489.86 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	6.96	6.96	6.96	(std.)
SC	1,130	1,131	1,131	(umhos/cm)
Temp.	10.14	10.15	10.15	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, slight turbidity, No Odor

Weather Conditions: 31°F, Sunny, SW Winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 140.03 - 3.08 = 136.95 (ft)

Levels were taken on 12/11/18 @ 0910.

* Total Depth = 172.95

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: 12/11/18

FIELD FORM 1

10/24/18 CB

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-7

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/11/18 Start Purge: 1040 (2400 Hr. Clock) End Purge: 1102

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.85

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.78 (ft./msl)
Water Level 105.79 (ft.)
Ground Water Elev. 514.99 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	8.40	8.42	8.42	(std.)
SC	1,321	1,323	1,323	(umhos/cm)
Temp.	9.68	9.67	9.67	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, clear, no odor
Weather Conditions: 35°F, Party cloudy, W Winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 105.79 - 2.45 = 103.34 (ft)
Levels were taken on 12/11/18 @ 1020.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: 12/11/18

FIELD FORM 1

12/24/18 CB

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-S

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/11/18 Start Purge: 1250 (2400 Hr. Clock) End Purge: 1311

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.68

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.50 (ft)

Ref. Measuring Pt. TIC

Well Elevation *612.10 (ft./msl)

Water Level 96.29 (ft.)

Ground Water Elev. 515.81 (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	10.15	10.14	10.14	(std.)
SC	1,850	1,850	1,850	(umhos/cm)
Temp.	10.93	10.95	10.95	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, clear, slight odor

Weather Conditions: 39 °F, Sunny, W winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 96.29 - 2.50 = 93.79 (ft)

Levels were taken on 12/11/18 @ 1245.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: 12/11/18

FIELD FORM 1

12/24/18 QC

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/11/18 Start Purge: 1405 (2400 Hr. Clock) End Purge: 1425

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.70 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.43 (ft./msl)
Water Level 91.34 (ft.)
Ground Water Elev. 510.09 (ft./msl)
Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.167	7.166	7.166	(std.)
SC	1,245	1,252	1,252	(umhos/cm)
Temp.	12.23	12.19	12.19	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, no odor
Weather Conditions: 39°F, Partly Cloudy, SW Winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 91.34 - 2.70 = 88.64 (ft)
Levels were taken on 12/11/18 @ 1400.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: 12/11/18

FIELD FORM 1

12/24/18 QP

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/12/18 Start Purge: 0930 (2400 Hr. Clock) End Purge: 0946

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.41

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.38 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 627.39 (ft./msl)

Water Level 131.10 (ft.)

Ground Water Elev. 496.29 (ft./msl)

Well Bottom Elevation * 447.38 (ft./msl)

	1st	2nd	Final	
pH	8.18	8.21	8.21	(std.)
SC	1,194	1,197	1,197	(umhos/cm)
Temp.	9.57	9.50	9.50	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 41°F, Partly Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 131.10 - 2.38 = 128.72 (ft.)

Levels were taken on 12/12/18 @ 0910.

* Total Deth = 180.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T01S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-11

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/13/18 Start Purge: 0910 (2400 Hr. Clock) End Purge: 0925

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.19

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.48 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 621.78 (ft./msl)
Water Level 124.67 (ft.)
Ground Water Elev. 497.11 (ft./msl)
Well Bottom Elevation * 451.46 (ft./msl)

	1st	2nd	Final	
pH	7.35	7.37	7.37	(std.)
SC	1,170	1180	1180	(umhos/cm)
Temp.	6.80	6.85	6.85	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, High Turbidity, Slight Odor
Weather Conditions: 35°F, Partly Cloudy, SE winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 124.67 - 2.48 = 122.19 (ft.)
Levels were taken on 12/13/18 @ 0845.
* Total Depth = 170.00

(Updated 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-12

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/13/18 Start Purge: 1320 (2400 Hr. Clock) End Purge: 1339

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.98

MEASUREMENTS

		1st	2nd	Final	
Well Diameter	2.0 (inches)				
Stick Up	2.03 (ft)	pH	7.44	7.43	7.43 (std.)
Ref. Measuring Pt.	TIC	SC	858	854	854 (umhos/cm)
Well Elevation	*536.99 (ft./msl)	Temp.	11.44	11.46	11.46 (°C)
Water Level	18.32 (ft.)				
Ground Water Elev.	518.67 (ft./msl)				
Well Bottom Elevation	*457.84 (ft./msl)				

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, clear, no odor
Weather Conditions: 42°F, cloudy, E winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 18.32 - 2.03 = 16.29 (ft)
Levels were taken on 12/13/18 @ 1310.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: 12/13/18

FIELD FORM 1

12/24/18 JB

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-13

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/13/18 Start Purge: 1215 (2400 Hr. Clock) End Purge: 1430

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.62 (ft./msl)
Water Level 65.48 (ft.)
Ground Water Elev. 513.14 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.12	8.11	8.11	(std.)
SC	925	916	916	(umhos/cm)
Temp.	12.10	12.06	12.06	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, clear, no odor
Weather Conditions: 43°F, cloudy, NE winds @ 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 65.48 - 2.55 = 62.93 (ft)
Levels were taken on 12/13/18 @ 1410.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: 12/13/18

FIELD FORM 1

12/24/18 YB

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T02S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-14

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/14/18 Start Purge: 0925 (2400 Hr. Clock) End Purge: 0944

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.49

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.33 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 626.16 (ft./msl)
Water Level 136.18 (ft.)
Ground Water Elev. 489.98 (ft./msl)
Well Bottom Elevation * 453.40 (ft./msl)

	1st	2nd	Final	
pH	7.54	7.55	7.55	(std.)
SC	1,074	1,098	1,038	(umhos/cm)
Temp.	8.15	8.16	8.16	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 41°F, Cloudy, NE winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 136.18 - 2.33 = 133.85 (ft.)
Levels were taken on 12/14/18 @ 0910.
* Total Depth = 172.75

(Updated: 12-11-2018))

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T02S_Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-15

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up _____ (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation * 626.16 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation * 453.40 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @ .

* Total Depth = 172.75

* Sampled on 12/14/18 @ 0944

(Updated: 12-11-2018))

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155880-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/14/18 Start Purge: 1345 (2400 Hr. Clock) End Purge: 1403

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.70 (ft./msl)
Water Level 2.51 (ft.)
Ground Water Elev. 522.19 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.94	7.99	7.99	(std.)
SC	1,420	1,422	1,422	(umhos/cm)
Temp.	9.82	9.81	9.81	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, clear, moderate odor
Weather Conditions: 42°F, Fog, NE winds @ 5-10 mph
Other: *Reference Measurement
Depth To Water from L.S. = 2.51 - 2.31 = 0.20 (ft)
Levels were taken on 12/14/18 @ 1340.

(Updated 10-102018)

Sampler Name (Print): Noe Lopez Signature: 12/14/18

FIELD FORM 1

12/24/18 DB

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T09S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-17

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/18/18 Start Purge: 1050 (2400 Hr. Clock) End Purge: 1108

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.58

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.40 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 603.74 (ft./msl)
Water Level 95.63 (ft.)
Ground Water Elev. 508.11 (ft./msl)
Well Bottom Elevation * 444.80 (ft./msl)

	1st	2nd	Final	
pH	7.54	7.54	7.54	(std.)
SC	1,200	1189	1189	(umhos/cm)
Temp.	7.76	7.77	7.77	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 42°F, Sunny, S winds @ 5-10 mph

Other: *Reference Measurement (updated 02/19/14)
Depth To Water from L.S. = 95.63 - 2.40 = 93.23 (ft)
Levels were taken on 12/18/18 @ 10:35.
* Total Depth: 158.59

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T06S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-18

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/18/18 Start Purge: 1300 (2400 Hr. Clock) End Purge: 1320

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.30 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 621.02 (ft./msl)
Water Level 115.65 (ft.)
Ground Water Elev. 505.37 (ft./msl)
Well Bottom Elevation * 447.94 (ft./msl)

	1st	2nd	Final	
pH	7.37	7.36	7.36	(std.)
SC	657	658	658	(umhos/cm)
Temp.	9.95	9.97	9.97	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 43°F, Sunny, S winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 115.65 - 2.30 = 113.35 (ft.)
Levels were taken on 12/18/18 @ 1240.
* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T05S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-19

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/19/18 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0927

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.71

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 623.45 (ft./msl)

Water Level 125.59 (ft.)

Ground Water Elev. 497.86 (ft./msl)

Well Bottom Elevation * 448.35 (ft./msl)

	1st	2nd	Final	
pH	10.35	10.37	10.37	(std.)
SC	2,000	2,010	2,010	(umhos/cm)
Temp.	8.92	8.85	8.85	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 38°F, Partly Cloudy, S winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 125.59 - 2.40 = 123.19 (ft.)

Levels were taken on 12/19/18 @ 0845.

* Total Deth = 175.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T04S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-155886-20

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y)(N)
Sampling Bladder Pump Dedicated (Y)(N)

PURGING INFORMATION

Purge Date: 12/19/18 Start Purge: 1205 (2400 Hr. Clock) End Purge: 1225

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.42 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 631.35 (ft./msl)
Water Level 158.52 (ft.)
Ground Water Elev. 472.83 (ft./msl)
Well Bottom Elevation * 458.07 (ft./msl)

	1st	2nd	Final	
pH	7.91	7.89	7.89	(std.)
SC	667	662	662	(umhos/cm)
Temp.	12.41	12.40	12.40	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 48°F, Sunny, S wind SE 10 - 15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 158.52 - 2.42 = 156.10 (ft.)
Levels were taken on 12/19/18 @ 1145.
* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-165270-1
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
7/15/2019 1:51:04 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-165270-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-165270-1

Comments
No additional comments.

Receipt
The samples were received on 6/18/2019 2:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 9 coolers at receipt time were 1.8º C, 2.1º C, 2.3º C, 2.5º C, 2.6º C, 3.3º C, 3.3º C, 3.7º C and 3.8º C.

Metals
Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-492594. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth. (LCS 500-492189/2-A) and (LCS 500-492252/2-A)

Method(s) 6020A: The continuing calibration verification (CCV) at line 53, recovered above the upper control limit for Cobalt bracketing the method blank (MB) and laboratory control sample (LCS). The MB and LCS were within the method control limits. The associated samples were bracketed by CCV that were within control limits. Therefore, the data have been reported. (CCV 500-493500/53)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-165270-1	G20S	Water	06/18/19 10:45	06/18/19 14:55	
500-165270-2	G44S	Water	06/19/19 10:54	06/19/19 14:48	
500-165270-3	G46S	Water	06/19/19 12:00	06/19/19 14:48	
500-165270-4	R08S	Water	06/19/19 13:05	06/19/19 14:48	
500-165270-5	T06S	Water	06/20/19 10:40	06/20/19 15:50	
500-165270-6	T05S	Water	06/20/19 13:32	06/20/19 15:50	
500-165270-7	T09S	Water	06/21/19 09:48	06/21/19 15:05	
500-165270-8	T08S	Water	06/21/19 12:47	06/21/19 15:05	
500-165270-9	G31S	Water	06/24/19 10:00	06/24/19 15:25	
500-165270-10	DUP	Water	06/24/19 10:00	06/24/19 15:25	
500-165270-11	G33S	Water	06/24/19 12:37	06/24/19 15:25	
500-165270-12	T03S	Water	06/24/19 13:58	06/24/19 15:25	
500-165270-13	T02S	Water	06/25/19 09:34	06/25/19 15:29	
500-165270-14	G48S	Water	06/25/19 13:36	06/25/19 15:29	
500-165270-15	T01S	Water	06/26/19 09:27	06/26/19 15:28	
500-165270-16	G30S	Water	06/26/19 13:18	06/26/19 15:28	
500-165270-17	R32S	Water	06/27/19 11:59	06/27/19 15:33	
500-165270-18	T04S	Water	06/27/19 13:15	06/27/19 15:33	
500-165270-19	G47S	Water	06/28/19 09:10	06/28/19 12:07	
500-165270-20	G45S	Water	06/28/19 10:31	06/28/19 12:07	

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G20S

Date Collected: 06/18/19 10:45
Date Received: 06/18/19 14:55

Lab Sample ID: 500-165270-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.041**		0.010		mg/L		06/19/19 07:40	06/19/19 16:03	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/19/19 07:40	06/19/19 18:03	1
Barium	**0.051**		0.0025		mg/L		06/19/19 07:40	06/19/19 18:03	1
Boron	**1.3**		0.050		mg/L		06/19/19 07:40	06/19/19 18:03	1
Calcium	**62**		0.20		mg/L		06/19/19 07:40	06/19/19 18:03	1
Cobalt	**0.0018**		0.0010		mg/L		06/19/19 07:40	06/19/19 18:03	1
Lead	<0.00050		0.00050		mg/L		06/19/19 07:40	06/19/19 18:03	1
Molybdenum	**0.017**		0.0050		mg/L		06/19/19 07:40	06/19/19 18:03	1
Selenium	<0.0025		0.0025		mg/L		06/19/19 07:40	06/19/19 18:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**440**		10		mg/L			06/19/19 23:35	1
Chloride	**13**		2.0		mg/L			06/25/19 16:15	1
Fluoride	**0.75**		0.10		mg/L			06/22/19 14:21	1
Sulfate	**65**		25		mg/L			06/28/19 13:43	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**36.25**				ft			06/18/19 10:45	1
Depth to Water (ft from MP)	**39.03**				ft			06/18/19 10:45	1
Elevation of well (ft from MP)	**580.33**				ft			06/18/19 10:45	1
Field pH	**7.18**				SU			06/18/19 10:45	1
Field Temperature	**70.7**				Degrees F			06/18/19 10:45	1
Ground Water Elevation	**541.30**				ft			06/18/19 10:45	1
Specific Conductance	**599**				umhos/cm			06/18/19 10:45	1
Well bottom elevation	**442.28**				ft			06/18/19 10:45	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G44S

Date Collected: 06/19/19 10:54
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.023**		0.010		mg/L		06/20/19 07:47	06/20/19 13:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:17	1
Barium	**0.062**		0.0025		mg/L		06/20/19 07:47	06/20/19 16:17	1
Boron	**1.3**		0.25		mg/L		06/20/19 07:47	06/21/19 11:18	5
Calcium	**130**		0.20		mg/L		06/20/19 07:47	06/20/19 16:17	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:17	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 16:17	1
Molybdenum	**0.13**		0.0050		mg/L		06/20/19 07:47	06/20/19 16:17	1
Selenium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**720**		10		mg/L			06/19/19 23:38	1
Chloride	**59**		2.0		mg/L			06/25/19 16:15	1
Fluoride	**0.19**		0.10		mg/L			06/22/19 14:28	1
Sulfate	**140**		100		mg/L			06/28/19 13:46	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**77.87**				ft			06/19/19 10:54	1
Depth to Water (ft from MP)	**80.05**				ft			06/19/19 10:54	1
Elevation of well (ft from MP)	**586.69**				ft			06/19/19 10:54	1
Field pH	**7.02**				SU			06/19/19 10:54	1
Field Temperature	**60.8**				Degrees F			06/19/19 10:54	1
Ground Water Elevation	**506.64**				ft			06/19/19 10:54	1
Specific Conductance	**969**				umhos/cm			06/19/19 10:54	1
Well bottom elevation	**455.11**				ft			06/19/19 10:54	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G46S

Date Collected: 06/19/19 12:00
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.22		0.010		mg/L		06/20/19 07:47	06/20/19 13:41	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014		0.0010		mg/L		06/20/19 07:47	06/20/19 16:20	1
Barium	0.040		0.0025		mg/L		06/20/19 07:47	06/20/19 16:20	1
Boron	13		5.0		mg/L		06/20/19 07:47	06/21/19 11:22	100
Calcium	89		0.20		mg/L		06/20/19 07:47	06/20/19 16:20	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:20	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 16:20	1
Molybdenum	1.8		0.0050		mg/L		06/20/19 07:47	06/20/19 16:20	1
Selenium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			06/19/19 23:40	1
Chloride	69		2.0		mg/L			06/25/19 16:16	1
Fluoride	0.33		0.10		mg/L			06/22/19 14:31	1
Sulfate	440		150		mg/L			06/28/19 13:46	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.70				ft			06/19/19 12:00	1
Depth to Water (ft from MP)	101.40				ft			06/19/19 12:00	1
Elevation of well (ft from MP)	601.32				ft			06/19/19 12:00	1
Field pH	7.64				SU			06/19/19 12:00	1
Field Temperature	57.4				Degrees F			06/19/19 12:00	1
Ground Water Elevation	499.92				ft			06/19/19 12:00	1
Specific Conductance	1216				umhos/cm			06/19/19 12:00	1
Well bottom elevation	453.62				ft			06/19/19 12:00	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: R08S

Date Collected: 06/19/19 13:05
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.16		0.010		mg/L		06/20/19 07:47	06/20/19 13:45	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0010		mg/L		06/20/19 07:47	06/20/19 16:24	1
Barium	0.044		0.0025		mg/L		06/20/19 07:47	06/20/19 16:24	1
Boron	8.5		1.0		mg/L		06/20/19 07:47	06/21/19 11:26	20
Calcium	140		0.20		mg/L		06/20/19 07:47	06/20/19 16:24	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:24	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 16:24	1
Molybdenum	0.37		0.0050		mg/L		06/20/19 07:47	06/20/19 16:24	1
Selenium	0.015		0.0025		mg/L		06/20/19 07:47	06/20/19 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		10		mg/L			06/19/19 23:43	1
Chloride	83		10		mg/L			06/25/19 18:36	5
Fluoride	0.14		0.10		mg/L			06/22/19 14:37	1
Sulfate	360		150		mg/L			06/28/19 13:46	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	64.69				ft			06/19/19 13:05	1
Depth to Water (ft from MP)	67.24				ft			06/19/19 13:05	1
Elevation of well (ft from MP)	578.62				ft			06/19/19 13:05	1
Field pH	8.10				SU			06/19/19 13:05	1
Field Temperature	57.4				Degrees F			06/19/19 13:05	1
Ground Water Elevation	511.38				ft			06/19/19 13:05	1
Specific Conductance	958				umhos/cm			06/19/19 13:05	1
Well bottom elevation	453.08				ft			06/19/19 13:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T06S

Date Collected: 06/20/19 10:40
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.027**		0.010		mg/L		06/21/19 07:59	06/21/19 18:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:58	1
Barium	**0.036**		0.0025		mg/L		06/21/19 07:59	06/24/19 14:58	1
Boron	**0.77**	**B**	0.050		mg/L		06/21/19 07:59	06/24/19 14:58	1
Calcium	**90**		0.20		mg/L		06/21/19 07:59	06/24/19 14:58	1
Cobalt	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:58	1
Lead	<0.00050		0.00050		mg/L		06/21/19 07:59	06/24/19 14:58	1
Molybdenum	**0.0085**		0.0050		mg/L		06/21/19 07:59	06/24/19 14:58	1
Selenium	<0.0025		0.0025		mg/L		06/21/19 07:59	06/24/19 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**460**		10		mg/L			06/21/19 06:12	1
Chloride	**9.2**		2.0		mg/L			06/25/19 16:17	1
Fluoride	**0.42**		0.10		mg/L			06/22/19 14:57	1
Sulfate	**89**		25		mg/L			06/28/19 15:03	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**109.75**				ft			06/20/19 10:40	1
Depth to Water (ft from MP)	**112.05**				ft			06/20/19 10:40	1
Elevation of well (ft from MP)	**621.02**				ft			06/20/19 10:40	1
Field pH	**7.05**				SU			06/20/19 10:40	1
Field Temperature	**68.0**				Degrees F			06/20/19 10:40	1
Ground Water Elevation	**508.97**				ft			06/20/19 10:40	1
Specific Conductance	**695**				umhos/cm			06/20/19 10:40	1
Well bottom elevation	**447.94**				ft			06/20/19 10:40	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T05S

Date Collected: 06/20/19 13:32
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018		0.010		mg/L		06/21/19 07:59	06/21/19 18:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.14		0.0010		mg/L		06/21/19 07:59	06/24/19 15:02	1
Barium	0.0099		0.0025		mg/L		06/21/19 07:59	06/24/19 15:02	1
Boron	13	B	5.0		mg/L		06/21/19 07:59	06/25/19 11:42	100
Calcium	2.2		0.20		mg/L		06/21/19 07:59	06/24/19 15:02	1
Cobalt	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 15:02	1
Lead	<0.00050		0.00050		mg/L		06/21/19 07:59	06/24/19 15:02	1
Molybdenum	1.1		0.0050		mg/L		06/21/19 07:59	06/24/19 15:02	1
Selenium	0.0056		0.0025		mg/L		06/21/19 07:59	06/24/19 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		10		mg/L			06/21/19 06:18	1
Chloride	140		10		mg/L			06/25/19 19:14	5
Fluoride	1.8		0.10		mg/L			06/22/19 15:00	1
Sulfate	530		150		mg/L			06/28/19 15:03	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	114.42				ft			06/20/19 13:32	1
Depth to Water (ft from MP)	116.82				ft			06/20/19 13:32	1
Elevation of well (ft from MP)	623.45				ft			06/20/19 13:32	1
Field pH	10.13				SU			06/20/19 13:32	1
Field Temperature	61.5				Degrees F			06/20/19 13:32	1
Ground Water Elevation	506.63				ft			06/20/19 13:32	1
Specific Conductance	2110				umhos/cm			06/20/19 13:32	1
Well bottom elevation	448.35				ft			06/20/19 13:32	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T09S

Date Collected: 06/21/19 09:48
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-7

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.075		0.010		mg/L		06/22/19 08:08	06/24/19 12:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0035		0.0010		mg/L		06/22/19 08:08	06/24/19 14:42	1
Barium	0.093		0.0025		mg/L		06/22/19 08:08	06/24/19 14:42	1
Boron	4.1		0.050		mg/L		06/22/19 08:08	06/24/19 14:42	1
Calcium	110		0.20		mg/L		06/22/19 08:08	06/24/19 14:42	1
Cobalt	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 14:42	1
Lead	0.00080		0.00050		mg/L		06/22/19 08:08	06/24/19 14:42	1
Molybdenum	0.67		0.0050		mg/L		06/22/19 08:08	06/24/19 14:42	1
Selenium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	870		10		mg/L			06/24/19 02:20	1
Chloride	120		10		mg/L			06/25/19 19:15	5
Fluoride	0.34		0.10		mg/L			06/22/19 15:05	1
Sulfate	280		100		mg/L			06/28/19 15:07	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	99.79				ft			06/21/19 09:48	1
Depth to Water (ft from MP)	102.19				ft			06/21/19 09:48	1
Elevation of well (ft from MP)	603.74				ft			06/21/19 09:48	1
Field pH	7.29				SU			06/21/19 09:48	1
Field Temperature	68.5				Degrees F			06/21/19 09:48	1
Ground Water Elevation	501.55				ft			06/21/19 09:48	1
Specific Conductance	1127				umhos/cm			06/21/19 09:48	1
Well bottom elevation	444.80				ft			06/21/19 09:48	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T08S

Date Collected: 06/21/19 12:47
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-8

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.029		0.010		mg/L		06/22/19 08:08	06/24/19 12:18	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.019		0.0010		mg/L		06/22/19 08:08	06/24/19 14:46	1
Barium	0.042		0.0025		mg/L		06/22/19 08:08	06/24/19 14:46	1
Boron	8.8		1.0		mg/L		06/22/19 08:08	06/25/19 11:46	20
Calcium	34		0.20		mg/L		06/22/19 08:08	06/24/19 14:46	1
Cobalt	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 14:46	1
Lead	<0.00050		0.00050		mg/L		06/22/19 08:08	06/24/19 14:46	1
Molybdenum	0.82		0.0050		mg/L		06/22/19 08:08	06/24/19 14:46	1
Selenium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		10		mg/L			06/24/19 02:22	1
Chloride	110		10		mg/L			06/25/19 19:19	5
Fluoride	0.77		0.10		mg/L			06/22/19 15:09	1
Sulfate	380		150		mg/L			06/28/19 15:07	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	122.19				ft			06/21/19 12:47	1
Depth to Water (ft from MP)	124.57				ft			06/21/19 12:47	1
Elevation of well (ft from MP)	627.39				ft			06/21/19 12:47	1
Field pH	8.15				SU			06/21/19 12:47	1
Field Temperature	72.5				Degrees F			06/21/19 12:47	1
Ground Water Elevation	502.82				ft			06/21/19 12:47	1
Specific Conductance	1180				umhos/cm			06/21/19 12:47	1
Well bottom elevation	447.38				ft			06/21/19 12:47	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G31S

Date Collected: 06/24/19 10:00
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.12		0.010		mg/L		06/25/19 15:30	06/26/19 11:08	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0056		0.0010		mg/L		06/25/19 15:30	06/26/19 17:15	1
Barium	0.059		0.0025		mg/L		06/25/19 15:30	06/26/19 17:15	1
Boron	5.9		1.0		mg/L		06/25/19 15:30	06/27/19 11:42	20
Calcium	160		0.20		mg/L		06/25/19 15:30	06/26/19 17:15	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:15	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:15	1
Molybdenum	0.89		0.0050		mg/L		06/25/19 15:30	06/26/19 17:15	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			06/26/19 07:59	1
Chloride	190		10		mg/L			06/25/19 19:21	5
Fluoride	0.27		0.10		mg/L			07/05/19 21:56	1
Sulfate	370		150		mg/L			06/28/19 15:07	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	23.29				ft			06/24/19 10:00	1
Depth to Water (ft from MP)	25.87				ft			06/24/19 10:00	1
Elevation of well (ft from MP)	535.78				ft			06/24/19 10:00	1
Field pH	7.16				SU			06/24/19 10:00	1
Field Temperature	59.7				Degrees F			06/24/19 10:00	1
Ground Water Elevation	509.91				ft			06/24/19 10:00	1
Specific Conductance	1424				umhos/cm			06/24/19 10:00	1
Well bottom elevation	453.36				ft			06/24/19 10:00	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: DUP

Date Collected: 06/24/19 10:00
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.12		0.010		mg/L		06/25/19 15:30	06/26/19 11:28	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0057		0.0010		mg/L		06/25/19 15:30	06/26/19 17:33	1
Barium	0.059		0.0025		mg/L		06/25/19 15:30	06/26/19 17:33	1
Boron	5.4		1.0		mg/L		06/25/19 15:30	06/27/19 12:09	20
Calcium	160		0.20		mg/L		06/25/19 15:30	06/26/19 17:33	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:33	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:33	1
Molybdenum	0.89		0.0050		mg/L		06/25/19 15:30	06/26/19 17:33	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			06/26/19 08:02	1
Chloride	180		10		mg/L			06/25/19 19:21	5
Fluoride	0.24		0.10		mg/L			07/05/19 21:58	1
Sulfate	370		150		mg/L			06/28/19 15:07	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	23.29				ft			06/24/19 10:00	1
Depth to Water (ft from MP)	25.87				ft			06/24/19 10:00	1
Elevation of well (ft from MP)	535.78				ft			06/24/19 10:00	1
Field pH	7.16				SU			06/24/19 10:00	1
Field Temperature	59.7				Degrees F			06/24/19 10:00	1
Ground Water Elevation	509.91				ft			06/24/19 10:00	1
Specific Conductance	1424				umhos/cm			06/24/19 10:00	1
Well bottom elevation	453.36				ft			06/24/19 10:00	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G33S

Date Collected: 06/24/19 12:37
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-11

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.043		0.010		mg/L		06/25/19 15:30	06/26/19 11:32	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011		0.0010		mg/L		06/25/19 15:30	06/26/19 17:37	1
Barium	0.070		0.0025		mg/L		06/25/19 15:30	06/26/19 17:37	1
Boron	1.4		0.25		mg/L		06/25/19 15:30	06/27/19 12:12	5
Calcium	45		0.20		mg/L		06/25/19 15:30	06/26/19 17:37	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:37	1
Lead	0.0011		0.00050		mg/L		06/25/19 15:30	06/26/19 17:37	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/19 15:30	06/26/19 17:37	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	420		10		mg/L			06/26/19 08:04	1
Chloride	4.8		2.0		mg/L			06/25/19 18:46	1
Fluoride	1.1		0.10		mg/L			07/05/19 22:07	1
Sulfate	61		25		mg/L			06/28/19 15:12	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	24.09				ft			06/24/19 12:37	1
Depth to Water (ft from MP)	25.82				ft			06/24/19 12:37	1
Elevation of well (ft from MP)	535.66				ft			06/24/19 12:37	1
Field pH	7.37				SU			06/24/19 12:37	1
Field Temperature	60.6				Degrees F			06/24/19 12:37	1
Ground Water Elevation	509.84				ft			06/24/19 12:37	1
Specific Conductance	615				umhos/cm			06/24/19 12:37	1
Well bottom elevation	452.72				ft			06/24/19 12:37	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T03S

Date Collected: 06/24/19 13:58
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-12

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.027		0.010		mg/L		06/25/19 15:30	06/26/19 11:44	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0020		0.0010		mg/L		06/25/19 15:30	06/26/19 17:41	1
Barium	0.090		0.0025		mg/L		06/25/19 15:30	06/26/19 17:41	1
Boron	2.7		0.50		mg/L		06/25/19 15:30	06/27/19 12:16	10
Calcium	100		0.20		mg/L		06/25/19 15:30	06/26/19 17:41	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:41	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:41	1
Molybdenum	0.37		0.0050		mg/L		06/25/19 15:30	06/26/19 17:41	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	830		10		mg/L			06/26/19 08:07	1
Chloride	89		10		mg/L			06/25/19 19:22	5
Fluoride	0.27		0.10		mg/L			07/05/19 22:10	1
Sulfate	260		100		mg/L			06/28/19 15:12	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	122.71				ft			06/24/19 13:58	1
Depth to Water (ft from MP)	125.79				ft			06/24/19 13:58	1
Elevation of well (ft from MP)	629.89				ft			06/24/19 13:58	1
Field pH	7.17				SU			06/24/19 13:58	1
Field Temperature	57.9				Degrees F			06/24/19 13:58	1
Ground Water Elevation	504.10				ft			06/24/19 13:58	1
Specific Conductance	1073				umhos/cm			06/24/19 13:58	1
Well bottom elevation	456.70				ft			06/24/19 13:58	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T02S

Date Collected: 06/25/19 09:34
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-13

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.034		0.010		mg/L		06/26/19 15:03	06/27/19 16:39	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0060		0.0010		mg/L		06/26/19 15:03	06/27/19 14:40	1
Barium	0.091	V	0.0025		mg/L		06/26/19 15:03	06/27/19 14:40	1
Boron	3.5		0.50		mg/L		06/26/19 15:03	06/28/19 13:49	10
Calcium	57	V	0.20		mg/L		06/26/19 15:03	06/27/19 14:40	1
Cobalt	0.0021		0.0010		mg/L		06/26/19 15:03	06/27/19 14:40	1
Lead	0.0024		0.00050		mg/L		06/26/19 15:03	06/27/19 14:40	1
Molybdenum	0.25	V	0.0050		mg/L		06/26/19 15:03	06/27/19 14:40	1
Selenium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	750		10		mg/L			06/26/19 08:09	1
Chloride	110		10		mg/L			07/02/19 16:45	5
Fluoride	0.40		0.10		mg/L			07/05/19 22:12	1
Sulfate	230		100		mg/L			06/28/19 15:12	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	126.27				ft			06/25/19 09:34	1
Depth to Water (ft from MP)	128.60				ft			06/25/19 09:34	1
Elevation of well (ft from MP)	626.16				ft			06/25/19 09:34	1
Field pH	7.40				SU			06/25/19 09:34	1
Field Temperature	75.2				Degrees F			06/25/19 09:34	1
Ground Water Elevation	497.56				ft			06/25/19 09:34	1
Specific Conductance	1147				umhos/cm			06/25/19 09:34	1
Well bottom elevation	453.40				ft			06/25/19 09:34	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G48S

Date Collected: 06/25/19 13:36
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-14

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.022		0.010		mg/L		06/26/19 15:03	06/27/19 17:09	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		06/26/19 15:03	06/27/19 15:06	1
Barium	0.018		0.0025		mg/L		06/26/19 15:03	06/27/19 15:06	1
Boron	7.1		1.0		mg/L		06/26/19 15:03	06/28/19 14:15	20
Calcium	28		0.20		mg/L		06/26/19 15:03	06/27/19 15:06	1
Cobalt	<0.0010		0.0010		mg/L		06/26/19 15:03	06/27/19 15:06	1
Lead	<0.00050		0.00050		mg/L		06/26/19 15:03	06/27/19 15:06	1
Molybdenum	0.73		0.0050		mg/L		06/26/19 15:03	06/27/19 15:06	1
Selenium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			06/26/19 08:12	1
Chloride	110		10		mg/L			07/02/19 16:50	5
Fluoride	0.95		0.10		mg/L			07/05/19 22:25	1
Sulfate	390		150		mg/L			06/28/19 15:12	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	95.73				ft			06/25/19 13:36	1
Depth to Water (ft from MP)	98.18				ft			06/25/19 13:36	1
Elevation of well (ft from MP)	620.78				ft			06/25/19 13:36	1
Field pH	8.07				SU			06/25/19 13:36	1
Field Temperature	62.8				Degrees F			06/25/19 13:36	1
Ground Water Elevation	522.60				ft			06/25/19 13:36	1
Specific Conductance	1391				umhos/cm			06/25/19 13:36	1
Well bottom elevation	468.32				ft			06/25/19 13:36	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T01S

Date Collected: 06/26/19 09:27
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-15

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.011		0.010		mg/L		06/27/19 07:17	06/27/19 17:21	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		06/27/19 07:17	06/27/19 16:29	1
Barium	0.069		0.0025		mg/L		06/27/19 07:17	06/27/19 16:29	1
Boron	4.3		0.50		mg/L		06/27/19 07:17	06/28/19 14:34	10
Calcium	58		0.20		mg/L		06/27/19 07:17	06/27/19 16:29	1
Cobalt	0.0030		0.0010		mg/L		06/27/19 07:17	06/27/19 16:29	1
Lead	0.0037		0.00050		mg/L		06/27/19 07:17	06/27/19 16:29	1
Molybdenum	0.30		0.0050		mg/L		06/27/19 07:17	06/27/19 16:29	1
Selenium	<0.0025		0.0025		mg/L		06/27/19 07:17	06/27/19 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	930		10		mg/L			06/27/19 09:55	1
Chloride	110		10		mg/L			07/02/19 16:52	5
Fluoride	1.1		0.10		mg/L			07/05/19 22:27	1
Sulfate	450		150		mg/L			06/28/19 15:16	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	111.20				ft			06/26/19 09:27	1
Depth to Water (ft from MP)	113.68				ft			06/26/19 09:27	1
Elevation of well (ft from MP)	621.78				ft			06/26/19 09:27	1
Field pH	7.43				SU			06/26/19 09:27	1
Field Temperature	73.4				Degrees F			06/26/19 09:27	1
Ground Water Elevation	508.10				ft			06/26/19 09:27	1
Specific Conductance	1222				umhos/cm			06/26/19 09:27	1
Well bottom elevation	451.46				ft			06/26/19 09:27	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G30S

Date Collected: 06/26/19 13:18
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-16

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018		0.010		mg/L		06/27/19 07:17	06/27/19 17:25	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0074		0.0010		mg/L		06/27/19 07:17	06/27/19 16:33	1
Barium	0.041		0.0025		mg/L		06/27/19 07:17	06/27/19 16:33	1
Boron	5.4		1.0		mg/L		06/27/19 07:17	06/28/19 14:37	20
Calcium	57		0.20		mg/L		06/27/19 07:17	06/27/19 16:33	1
Cobalt	<0.0010		0.0010		mg/L		06/27/19 07:17	06/27/19 16:33	1
Lead	<0.00050		0.00050		mg/L		06/27/19 07:17	06/27/19 16:33	1
Molybdenum	0.065		0.0050		mg/L		06/27/19 07:17	06/27/19 16:33	1
Selenium	<0.0025	F1	0.0025		mg/L		06/27/19 07:17	06/27/19 16:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			06/27/19 09:57	1
Chloride	220		10		mg/L			07/09/19 13:22	5
Fluoride	1.1		0.10		mg/L			07/05/19 22:30	1
Sulfate	350		150		mg/L			06/28/19 15:16	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-0.74				ft			06/26/19 13:18	1
Depth to Water (ft from MP)	1.57				ft			06/26/19 13:18	1
Elevation of well (ft from MP)	524.70				ft			06/26/19 13:18	1
Field pH	7.98				SU			06/26/19 13:18	1
Field Temperature	60.4				Degrees F			06/26/19 13:18	1
Ground Water Elevation	523.13				ft			06/26/19 13:18	1
Specific Conductance	1500				umhos/cm			06/26/19 13:18	1
Well bottom elevation	462.58				ft			06/26/19 13:18	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: R32S

Date Collected: 06/27/19 11:59
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-17

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.090**		0.010		mg/L		06/28/19 07:48	06/28/19 16:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0027**		0.0010		mg/L		06/28/19 07:48	06/28/19 18:14	1
Barium	**0.041**		0.0025		mg/L		06/28/19 07:48	06/28/19 18:14	1
Boron	**6.3**		1.0		mg/L		06/28/19 07:48	07/01/19 11:03	20
Calcium	**140**		0.20		mg/L		06/28/19 07:48	06/28/19 18:14	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 07:48	06/28/19 18:14	1
Lead	<0.00050		0.00050		mg/L		06/28/19 07:48	06/28/19 18:14	1
Molybdenum	**0.81**		0.0050		mg/L		06/28/19 07:48	06/28/19 18:14	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 18:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**880**		10		mg/L			06/28/19 10:28	1
Chloride	**74**		2.0		mg/L			07/09/19 12:20	1
Fluoride	**0.27**		0.10		mg/L			07/05/19 22:32	1
Sulfate	**380**		100		mg/L			06/28/19 16:29	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**17.25**				ft			06/27/19 11:59	1
Depth to Water (ft from MP)	**19.28**				ft			06/27/19 11:59	1
Elevation of well (ft from MP)	**536.99**				ft			06/27/19 11:59	1
Field pH	**7.33**				SU			06/27/19 11:59	1
Field Temperature	**54.9**				Degrees F			06/27/19 11:59	1
Ground Water Elevation	**517.71**				ft			06/27/19 11:59	1
Specific Conductance	**991**				umhos/cm			06/27/19 11:59	1
Well bottom elevation	**457.84**				ft			06/27/19 11:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T04S

Date Collected: 06/27/19 13:15
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-18

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.038		0.010		mg/L		06/28/19 07:48	06/28/19 17:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0010		mg/L		06/28/19 07:48	06/28/19 18:17	1
Barium	0.087		0.0025		mg/L		06/28/19 07:48	06/28/19 18:17	1
Boron	0.24		0.050		mg/L		06/28/19 07:48	07/01/19 11:09	1
Calcium	100		0.20		mg/L		06/28/19 07:48	06/28/19 18:17	1
Cobalt	0.0033		0.0010		mg/L		06/28/19 07:48	06/28/19 18:17	1
Lead	0.0038		0.00050		mg/L		06/28/19 07:48	06/28/19 18:17	1
Molybdenum	0.014		0.0050		mg/L		06/28/19 07:48	06/28/19 18:17	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 18:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	590		10		mg/L			06/28/19 10:30	1
Chloride	24		2.0		mg/L			07/09/19 12:21	1
Fluoride	0.27		0.10		mg/L			07/05/19 22:37	1
Sulfate	140		50		mg/L			06/28/19 15:19	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	150.89				ft			06/27/19 13:15	1
Depth to Water (ft from MP)	153.31				ft			06/27/19 13:15	1
Elevation of well (ft from MP)	631.35				ft			06/27/19 13:15	1
Field pH	7.05				SU			06/27/19 13:15	1
Field Temperature	76.3				Degrees F			06/27/19 13:15	1
Ground Water Elevation	478.04				ft			06/27/19 13:15	1
Specific Conductance	721				umhos/cm			06/27/19 13:15	1
Well bottom elevation	458.07				ft			06/27/19 13:15	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G47S

Date Collected: 06/28/19 09:10
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-19

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.028		0.010		mg/L		06/28/19 15:43	07/01/19 12:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.13		0.0010		mg/L		06/28/19 15:43	07/03/19 15:06	1
Barium	0.012		0.0025		mg/L		06/28/19 15:43	07/03/19 15:06	1
Boron	13		5.0		mg/L		06/28/19 15:43	07/11/19 18:47	100
Calcium	2.9		0.20		mg/L		06/28/19 15:43	07/03/19 15:06	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 15:43	07/03/19 15:06	1
Lead	<0.00050		0.00050		mg/L		06/28/19 15:43	07/03/19 15:06	1
Molybdenum	1.0		0.0050		mg/L		06/28/19 15:43	07/03/19 15:06	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1400		10		mg/L			06/30/19 23:28	1
Chloride	130		10		mg/L			07/09/19 13:23	5
Fluoride	1.3		0.10		mg/L			07/05/19 22:40	1
Sulfate	450		100		mg/L			07/11/19 13:30	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	89.28				ft			06/28/19 09:10	1
Depth to Water (ft from MP)	91.78				ft			06/28/19 09:10	1
Elevation of well (ft from MP)	612.10				ft			06/28/19 09:10	1
Field pH	9.95				SU			06/28/19 09:10	1
Field Temperature	60.3				Degrees F			06/28/19 09:10	1
Ground Water Elevation	520.32				ft			06/28/19 09:10	1
Specific Conductance	1800				umhos/cm			06/28/19 09:10	1
Well bottom elevation	459.84				ft			06/28/19 09:10	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G45S

Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-20

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.032		0.010		mg/L		06/28/19 15:43	07/01/19 12:20	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.010		0.0010		mg/L		06/28/19 15:43	07/03/19 15:10	1
Barium	0.039		0.0025		mg/L		06/28/19 15:43	07/03/19 15:10	1
Boron	0.39		0.050		mg/L		06/28/19 15:43	07/11/19 18:51	1
Calcium	96		0.20		mg/L		06/28/19 15:43	07/03/19 15:10	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 15:43	07/03/19 15:10	1
Lead	<0.00050		0.00050		mg/L		06/28/19 15:43	07/03/19 15:10	1
Molybdenum	0.0087		0.0050		mg/L		06/28/19 15:43	07/03/19 15:10	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	720		10		mg/L			06/30/19 23:33	1
Chloride	130		10		mg/L			07/09/19 13:25	5
Fluoride	0.33		0.10		mg/L			07/05/19 22:44	1
Sulfate	120		100		mg/L			07/11/19 13:30	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	59.75				ft			06/28/19 10:31	1
Depth to Water (ft from MP)	62.72				ft			06/28/19 10:31	1
Elevation of well (ft from MP)	603.31				ft			06/28/19 10:31	1
Field pH	7.51				SU			06/28/19 10:31	1
Field Temperature	59.9				Degrees F			06/28/19 10:31	1
Ground Water Elevation	540.59				ft			06/28/19 10:31	1
Specific Conductance	914				umhos/cm			06/28/19 10:31	1
Well bottom elevation	471.05				ft			06/28/19 10:31	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
V	Serial Dilution exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 490923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total Recoverable	Water	3005A	
MB 500-490923/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-490923/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total Recoverable	Water	6010C	490923
MB 500-490923/1-A	Method Blank	Total Recoverable	Water	6010C	490923
LCS 500-490923/2-A	Lab Control Sample	Total Recoverable	Water	6010C	490923

Prep Batch: 491100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	3005A	
500-165270-3	G46S	Total Recoverable	Water	3005A	
500-165270-4	R08S	Total Recoverable	Water	3005A	
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total Recoverable	Water	6020A	490923
MB 500-490923/1-A	Method Blank	Total Recoverable	Water	6020A	490923
LCS 500-490923/2-A	Lab Control Sample	Total Recoverable	Water	6020A	490923

Analysis Batch: 491285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	6010C	491100
500-165270-3	G46S	Total Recoverable	Water	6010C	491100
500-165270-4	R08S	Total Recoverable	Water	6010C	491100
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	6010C	491100
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491100

Prep Batch: 491302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total Recoverable	Water	3005A	
500-165270-6	T05S	Total Recoverable	Water	3005A	
MB 500-491302/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491302/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	6020A	491100
500-165270-3	G46S	Total Recoverable	Water	6020A	491100
500-165270-4	R08S	Total Recoverable	Water	6020A	491100
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	6020A	491100
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491100

Analysis Batch: 491449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	6020A	491100
500-165270-3	G46S	Total Recoverable	Water	6020A	491100

Metals (Continued)

Analysis Batch: 491449 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-4	R08S	Total Recoverable	Water	6020A	491100
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	6020A	491100
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491100

Prep Batch: 491497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-7	T09S	Total Recoverable	Water	3005A	
500-165270-8	T08S	Total Recoverable	Water	3005A	
MB 500-491497/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491497/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total Recoverable	Water	6010C	491302
500-165270-6	T05S	Total Recoverable	Water	6010C	491302
MB 500-491302/1-A	Method Blank	Total Recoverable	Water	6010C	491302
LCS 500-491302/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491302

Analysis Batch: 491700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-7	T09S	Total Recoverable	Water	6010C	491497
500-165270-8	T08S	Total Recoverable	Water	6010C	491497
MB 500-491497/1-A	Method Blank	Total Recoverable	Water	6010C	491497
LCS 500-491497/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491497

Analysis Batch: 491886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total Recoverable	Water	6020A	491302
500-165270-6	T05S	Total Recoverable	Water	6020A	491302
500-165270-7	T09S	Total Recoverable	Water	6020A	491497
500-165270-8	T08S	Total Recoverable	Water	6020A	491497
MB 500-491302/1-A	Method Blank	Total Recoverable	Water	6020A	491302
MB 500-491497/1-A	Method Blank	Total Recoverable	Water	6020A	491497
LCS 500-491302/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491302
LCS 500-491497/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491497

Prep Batch: 491981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	3005A	
500-165270-10	DUP	Total Recoverable	Water	3005A	
500-165270-11	G33S	Total Recoverable	Water	3005A	
500-165270-12	T03S	Total Recoverable	Water	3005A	
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-165270-9 MS	G31S	Total Recoverable	Water	3005A	
500-165270-9 MSD	G31S	Total Recoverable	Water	3005A	
500-165270-9 DU	G31S	Total Recoverable	Water	3005A	

Analysis Batch: 492086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-6	T05S	Total Recoverable	Water	6020A	491302

Metals (Continued)

Analysis Batch: 492086 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-8	T08S	Total Recoverable	Water	6020A	491497

Analysis Batch: 492159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	6010C	491981
500-165270-10	DUP	Total Recoverable	Water	6010C	491981
500-165270-11	G33S	Total Recoverable	Water	6010C	491981
500-165270-12	T03S	Total Recoverable	Water	6010C	491981
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	6010C	491981
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491981
500-165270-9 MS	G31S	Total Recoverable	Water	6010C	491981
500-165270-9 MSD	G31S	Total Recoverable	Water	6010C	491981
500-165270-9 DU	G31S	Total Recoverable	Water	6010C	491981

Prep Batch: 492189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total Recoverable	Water	3005A	
500-165270-14	G48S	Total Recoverable	Water	3005A	
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-165270-13 MS	T02S	Total Recoverable	Water	3005A	
500-165270-13 MSD	T02S	Total Recoverable	Water	3005A	
500-165270-13 DU	T02S	Total Recoverable	Water	3005A	

Prep Batch: 492252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-15	T01S	Total Recoverable	Water	3005A	
500-165270-16	G30S	Total Recoverable	Water	3005A	
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-165270-16 MS	G30S	Total Recoverable	Water	3005A	
500-165270-16 MSD	G30S	Total Recoverable	Water	3005A	
500-165270-16 DU	G30S	Total Recoverable	Water	3005A	

Analysis Batch: 492312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	6020A	491981
500-165270-10	DUP	Total Recoverable	Water	6020A	491981
500-165270-11	G33S	Total Recoverable	Water	6020A	491981
500-165270-12	T03S	Total Recoverable	Water	6020A	491981
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	6020A	491981
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491981
500-165270-9 MS	G31S	Total Recoverable	Water	6020A	491981
500-165270-9 MSD	G31S	Total Recoverable	Water	6020A	491981
500-165270-9 DU	G31S	Total Recoverable	Water	6020A	491981

Analysis Batch: 492479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total Recoverable	Water	6010C	492189
500-165270-14	G48S	Total Recoverable	Water	6010C	492189
500-165270-15	T01S	Total Recoverable	Water	6010C	492252

Metals (Continued)

Analysis Batch: 492479 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-16	G30S	Total Recoverable	Water	6010C	492252
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	6010C	492189
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	6010C	492252
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492189
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492252
500-165270-13 MS	T02S	Total Recoverable	Water	6010C	492189
500-165270-13 MSD	T02S	Total Recoverable	Water	6010C	492189
500-165270-16 MS	G30S	Total Recoverable	Water	6010C	492252
500-165270-16 MSD	G30S	Total Recoverable	Water	6010C	492252
500-165270-13 DU	T02S	Total Recoverable	Water	6010C	492189
500-165270-16 DU	G30S	Total Recoverable	Water	6010C	492252

Prep Batch: 492495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total Recoverable	Water	3005A	
500-165270-18	T04S	Total Recoverable	Water	3005A	
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 492594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	6020A	491981
500-165270-10	DUP	Total Recoverable	Water	6020A	491981
500-165270-11	G33S	Total Recoverable	Water	6020A	491981
500-165270-12	T03S	Total Recoverable	Water	6020A	491981
500-165270-13	T02S	Total Recoverable	Water	6020A	492189
500-165270-14	G48S	Total Recoverable	Water	6020A	492189
500-165270-15	T01S	Total Recoverable	Water	6020A	492252
500-165270-16	G30S	Total Recoverable	Water	6020A	492252
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	6020A	491981
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	6020A	492189
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	6020A	492252
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491981
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492189
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492252
500-165270-9 MS	G31S	Total Recoverable	Water	6020A	491981
500-165270-9 MSD	G31S	Total Recoverable	Water	6020A	491981
500-165270-13 MS	T02S	Total Recoverable	Water	6020A	492189
500-165270-13 MSD	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 MS	G30S	Total Recoverable	Water	6020A	492252
500-165270-16 MSD	G30S	Total Recoverable	Water	6020A	492252
500-165270-9 DU	G31S	Total Recoverable	Water	6020A	491981
500-165270-13 DU	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 DU	G30S	Total Recoverable	Water	6020A	492252

Prep Batch: 492638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	3005A	
500-165270-20	G45S	Total Recoverable	Water	3005A	
MB 500-492638/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492638/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 492795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total Recoverable	Water	6010C	492495
500-165270-18	T04S	Total Recoverable	Water	6010C	492495
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	6010C	492495
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492495

Analysis Batch: 492835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total Recoverable	Water	6020A	492189
500-165270-14	G48S	Total Recoverable	Water	6020A	492189
500-165270-15	T01S	Total Recoverable	Water	6020A	492252
500-165270-16	G30S	Total Recoverable	Water	6020A	492252
500-165270-17	R32S	Total Recoverable	Water	6020A	492495
500-165270-18	T04S	Total Recoverable	Water	6020A	492495
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	6020A	492189
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	6020A	492252
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	6020A	492495
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492189
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492252
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492495
500-165270-13 MS	T02S	Total Recoverable	Water	6020A	492189
500-165270-13 MSD	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 MS	G30S	Total Recoverable	Water	6020A	492252
500-165270-16 MSD	G30S	Total Recoverable	Water	6020A	492252
500-165270-13 DU	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 DU	G30S	Total Recoverable	Water	6020A	492252

Analysis Batch: 492905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	6010C	492638
500-165270-20	G45S	Total Recoverable	Water	6010C	492638
MB 500-492638/1-A	Method Blank	Total Recoverable	Water	6010C	492638
LCS 500-492638/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492638

Analysis Batch: 492965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total Recoverable	Water	6020A	492495
500-165270-18	T04S	Total Recoverable	Water	6020A	492495
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	6020A	492495
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492495

Analysis Batch: 493500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	6020A	492638
500-165270-20	G45S	Total Recoverable	Water	6020A	492638
MB 500-492638/1-A	Method Blank	Total Recoverable	Water	6020A	492638
LCS 500-492638/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492638

Analysis Batch: 494590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	6020A	492638
500-165270-20	G45S	Total Recoverable	Water	6020A	492638

General Chemistry

Analysis Batch: 446113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 4500 SO4 E	
500-165270-2	G44S	Total/NA	Water	SM 4500 SO4 E	
500-165270-3	G46S	Total/NA	Water	SM 4500 SO4 E	
500-165270-4	R08S	Total/NA	Water	SM 4500 SO4 E	
MB 400-446113/18	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-446113/19	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-446113/15	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 446149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total/NA	Water	SM 4500 SO4 E	
500-165270-6	T05S	Total/NA	Water	SM 4500 SO4 E	
500-165270-7	T09S	Total/NA	Water	SM 4500 SO4 E	
500-165270-8	T08S	Total/NA	Water	SM 4500 SO4 E	
500-165270-9	G31S	Total/NA	Water	SM 4500 SO4 E	
500-165270-10	DUP	Total/NA	Water	SM 4500 SO4 E	
500-165270-11	G33S	Total/NA	Water	SM 4500 SO4 E	
500-165270-12	T03S	Total/NA	Water	SM 4500 SO4 E	
500-165270-13	T02S	Total/NA	Water	SM 4500 SO4 E	
500-165270-14	G48S	Total/NA	Water	SM 4500 SO4 E	
500-165270-15	T01S	Total/NA	Water	SM 4500 SO4 E	
500-165270-16	G30S	Total/NA	Water	SM 4500 SO4 E	
500-165270-17	R32S	Total/NA	Water	SM 4500 SO4 E	
500-165270-18	T04S	Total/NA	Water	SM 4500 SO4 E	
MB 400-446149/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-446149/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-446149/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-165270-5 MS	T06S	Total/NA	Water	SM 4500 SO4 E	
500-165270-5 MSD	T06S	Total/NA	Water	SM 4500 SO4 E	
500-165270-15 MS	T01S	Total/NA	Water	SM 4500 SO4 E	
500-165270-15 MSD	T01S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 447593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total/NA	Water	SM 4500 SO4 E	
500-165270-20	G45S	Total/NA	Water	SM 4500 SO4 E	
MB 400-447593/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-447593/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-447593/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 491082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 2540C	
500-165270-2	G44S	Total/NA	Water	SM 2540C	
500-165270-3	G46S	Total/NA	Water	SM 2540C	
500-165270-4	R08S	Total/NA	Water	SM 2540C	
MB 500-491082/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-491082/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 491283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total/NA	Water	SM 2540C	
500-165270-6	T05S	Total/NA	Water	SM 2540C	
MB 500-491283/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-491283/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-165270-5 DU	T06S	Total/NA	Water	SM 2540C	

Analysis Batch: 491581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-7	T09S	Total/NA	Water	SM 2540C	
500-165270-8	T08S	Total/NA	Water	SM 2540C	
MB 500-491581/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-491581/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 491896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 4500 F C	
500-165270-2	G44S	Total/NA	Water	SM 4500 F C	
500-165270-3	G46S	Total/NA	Water	SM 4500 F C	
500-165270-4	R08S	Total/NA	Water	SM 4500 F C	
500-165270-5	T06S	Total/NA	Water	SM 4500 F C	
500-165270-6	T05S	Total/NA	Water	SM 4500 F C	
500-165270-7	T09S	Total/NA	Water	SM 4500 F C	
500-165270-8	T08S	Total/NA	Water	SM 4500 F C	
MB 500-491896/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-491896/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 492003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 4500 Cl- E	
500-165270-2	G44S	Total/NA	Water	SM 4500 Cl- E	
500-165270-3	G46S	Total/NA	Water	SM 4500 Cl- E	
500-165270-5	T06S	Total/NA	Water	SM 4500 Cl- E	
MB 500-492003/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-492003/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-5 MS	T06S	Total/NA	Water	SM 4500 Cl- E	
500-165270-5 MSD	T06S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 492063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total/NA	Water	SM 2540C	
500-165270-10	DUP	Total/NA	Water	SM 2540C	
500-165270-11	G33S	Total/NA	Water	SM 2540C	
500-165270-12	T03S	Total/NA	Water	SM 2540C	
500-165270-13	T02S	Total/NA	Water	SM 2540C	
500-165270-14	G48S	Total/NA	Water	SM 2540C	
MB 500-492063/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492063/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 492303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-4	R08S	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 492303 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-6	T05S	Total/NA	Water	SM 4500 Cl- E	
500-165270-7	T09S	Total/NA	Water	SM 4500 Cl- E	
500-165270-8	T08S	Total/NA	Water	SM 4500 Cl- E	
500-165270-9	G31S	Total/NA	Water	SM 4500 Cl- E	
500-165270-10	DUP	Total/NA	Water	SM 4500 Cl- E	
500-165270-11	G33S	Total/NA	Water	SM 4500 Cl- E	
500-165270-12	T03S	Total/NA	Water	SM 4500 Cl- E	
MB 500-492303/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-492303/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-8 MS	T08S	Total/NA	Water	SM 4500 Cl- E	
500-165270-8 MSD	T08S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 492315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-15	T01S	Total/NA	Water	SM 2540C	
500-165270-16	G30S	Total/NA	Water	SM 2540C	
MB 500-492315/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492315/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 492545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total/NA	Water	SM 2540C	
500-165270-18	T04S	Total/NA	Water	SM 2540C	
MB 500-492545/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492545/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 492785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total/NA	Water	SM 2540C	
500-165270-20	G45S	Total/NA	Water	SM 2540C	
MB 500-492785/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492785/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-165270-19 DU	G47S	Total/NA	Water	SM 2540C	

Analysis Batch: 493145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total/NA	Water	SM 4500 Cl- E	
500-165270-14	G48S	Total/NA	Water	SM 4500 Cl- E	
500-165270-15	T01S	Total/NA	Water	SM 4500 Cl- E	
MB 500-493145/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-493145/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-13 MS	T02S	Total/NA	Water	SM 4500 Cl- E	
500-165270-13 MSD	T02S	Total/NA	Water	SM 4500 Cl- E	
500-165270-14 MS	G48S	Total/NA	Water	SM 4500 Cl- E	
500-165270-14 MSD	G48S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 493622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total/NA	Water	SM 4500 F C	
500-165270-10	DUP	Total/NA	Water	SM 4500 F C	
500-165270-11	G33S	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 493622 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-12	T03S	Total/NA	Water	SM 4500 F C	
500-165270-13	T02S	Total/NA	Water	SM 4500 F C	
500-165270-14	G48S	Total/NA	Water	SM 4500 F C	
500-165270-15	T01S	Total/NA	Water	SM 4500 F C	
500-165270-16	G30S	Total/NA	Water	SM 4500 F C	
500-165270-17	R32S	Total/NA	Water	SM 4500 F C	
500-165270-18	T04S	Total/NA	Water	SM 4500 F C	
500-165270-19	G47S	Total/NA	Water	SM 4500 F C	
500-165270-20	G45S	Total/NA	Water	SM 4500 F C	
MB 500-493622/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-493622/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-165270-10 MS	DUP	Total/NA	Water	SM 4500 F C	
500-165270-10 MSD	DUP	Total/NA	Water	SM 4500 F C	

Analysis Batch: 493994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-16	G30S	Total/NA	Water	SM 4500 Cl- E	
500-165270-17	R32S	Total/NA	Water	SM 4500 Cl- E	
500-165270-18	T04S	Total/NA	Water	SM 4500 Cl- E	
500-165270-19	G47S	Total/NA	Water	SM 4500 Cl- E	
500-165270-20	G45S	Total/NA	Water	SM 4500 Cl- E	
MB 500-493994/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-493994/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-16 MS	G30S	Total/NA	Water	SM 4500 Cl- E	
500-165270-16 MSD	G30S	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 494883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	Field Sampling	
500-165270-2	G44S	Total/NA	Water	Field Sampling	
500-165270-3	G46S	Total/NA	Water	Field Sampling	
500-165270-4	R08S	Total/NA	Water	Field Sampling	
500-165270-5	T06S	Total/NA	Water	Field Sampling	
500-165270-6	T05S	Total/NA	Water	Field Sampling	
500-165270-7	T09S	Total/NA	Water	Field Sampling	
500-165270-8	T08S	Total/NA	Water	Field Sampling	
500-165270-9	G31S	Total/NA	Water	Field Sampling	
500-165270-10	DUP	Total/NA	Water	Field Sampling	
500-165270-11	G33S	Total/NA	Water	Field Sampling	
500-165270-12	T03S	Total/NA	Water	Field Sampling	
500-165270-13	T02S	Total/NA	Water	Field Sampling	
500-165270-14	G48S	Total/NA	Water	Field Sampling	
500-165270-15	T01S	Total/NA	Water	Field Sampling	
500-165270-16	G30S	Total/NA	Water	Field Sampling	
500-165270-17	R32S	Total/NA	Water	Field Sampling	
500-165270-18	T04S	Total/NA	Water	Field Sampling	
500-165270-19	G47S	Total/NA	Water	Field Sampling	
500-165270-20	G45S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-490923/1-A
Matrix: Water
Analysis Batch: 491090

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/19/19 07:40	06/19/19 15:55	1

Lab Sample ID: LCS 500-490923/2-A
Matrix: Water
Analysis Batch: 491090

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.513		mg/L		103	80 - 120

Lab Sample ID: MB 500-491100/1-A
Matrix: Water
Analysis Batch: 491285

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/20/19 07:47	06/20/19 12:56	1

Lab Sample ID: LCS 500-491100/2-A
Matrix: Water
Analysis Batch: 491285

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.564		mg/L		113	80 - 120

Lab Sample ID: MB 500-491302/1-A
Matrix: Water
Analysis Batch: 491598

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/21/19 07:59	06/21/19 18:47	1

Lab Sample ID: LCS 500-491302/2-A
Matrix: Water
Analysis Batch: 491598

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.523		mg/L		105	80 - 120

Lab Sample ID: MB 500-491497/1-A
Matrix: Water
Analysis Batch: 491700

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/22/19 08:08	06/24/19 12:06	1

Lab Sample ID: LCS 500-491497/2-A
Matrix: Water
Analysis Batch: 491700

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.558		mg/L		112	80 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-491981/1-A
Matrix: Water
Analysis Batch: 492159

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/19 15:30	06/26/19 11:00	1

Lab Sample ID: LCS 500-491981/2-A
Matrix: Water
Analysis Batch: 492159

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.549		mg/L		110	80 - 120

Lab Sample ID: 500-165270-9 MS
Matrix: Water
Analysis Batch: 492159

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.12		0.500	0.690		mg/L		113	75 - 125

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492159

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.12		0.500	0.677		mg/L		111	75 - 125	2	20

Lab Sample ID: 500-165270-9 DU
Matrix: Water
Analysis Batch: 492159

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.12		0.124		mg/L		0.9	20

Lab Sample ID: MB 500-492189/1-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/26/19 15:03	06/27/19 16:31	1

Lab Sample ID: LCS 500-492189/2-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.509		mg/L		102	80 - 120

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 492479

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.034		0.500	0.553		mg/L		104	75 - 125

Method: 6010C - Metals (ICP)

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492479

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.034		0.500	0.542		mg/L		102	75 - 125	2	20

Lab Sample ID: 500-165270-13 DU
Matrix: Water
Analysis Batch: 492479

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.034		0.0347		mg/L		2	20

Lab Sample ID: MB 500-492252/1-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/27/19 07:17	06/27/19 17:13	1

Lab Sample ID: LCS 500-492252/2-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.503		mg/L		101	80 - 120

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 492479

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.018		0.500	0.545		mg/L		105	75 - 125

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492479

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.018		0.500	0.557		mg/L		108	75 - 125	2	20

Lab Sample ID: 500-165270-16 DU
Matrix: Water
Analysis Batch: 492479

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.018		0.0190		mg/L		6	20

Lab Sample ID: MB 500-492495/1-A
Matrix: Water
Analysis Batch: 492795

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/28/19 07:48	06/28/19 16:50	1

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 500-492495/2-A
Matrix: Water
Analysis Batch: 492795

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.442		mg/L		88	80 - 120

Lab Sample ID: MB 500-492638/1-A
Matrix: Water
Analysis Batch: 492905

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/28/19 15:43	07/01/19 12:08	1

Lab Sample ID: LCS 500-492638/2-A
Matrix: Water
Analysis Batch: 492905

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.554		mg/L		111	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-490923/1-A
Matrix: Water
Analysis Batch: 491173

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/19/19 07:40	06/19/19 16:41	1
Barium	<0.0025		0.0025		mg/L		06/19/19 07:40	06/19/19 16:41	1
Boron	<0.050		0.050		mg/L		06/19/19 07:40	06/19/19 16:41	1
Calcium	<0.20		0.20		mg/L		06/19/19 07:40	06/19/19 16:41	1
Cobalt	<0.0010		0.0010		mg/L		06/19/19 07:40	06/19/19 16:41	1
Lead	<0.00050		0.00050		mg/L		06/19/19 07:40	06/19/19 16:41	1
Molybdenum	<0.0050		0.0050		mg/L		06/19/19 07:40	06/19/19 16:41	1
Selenium	<0.0025		0.0025		mg/L		06/19/19 07:40	06/19/19 16:41	1

Lab Sample ID: LCS 500-490923/2-A
Matrix: Water
Analysis Batch: 491173

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.105		mg/L		105	80 - 120
Barium	2.00	2.16		mg/L		108	80 - 120
Boron	1.00	1.03		mg/L		103	80 - 120
Calcium	10.0	9.60		mg/L		96	80 - 120
Cobalt	0.500	0.527		mg/L		105	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-491100/1-A
Matrix: Water
Analysis Batch: 491367

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 15:43	1
Barium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 15:43	1
Calcium	<0.20		0.20		mg/L		06/20/19 07:47	06/20/19 15:43	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 15:43	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 15:43	1
Molybdenum	<0.0050		0.0050		mg/L		06/20/19 07:47	06/20/19 15:43	1
Selenium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 15:43	1

Lab Sample ID: MB 500-491100/1-A
Matrix: Water
Analysis Batch: 491449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/20/19 07:47	06/21/19 11:11	1

Lab Sample ID: LCS 500-491100/2-A
Matrix: Water
Analysis Batch: 491367

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.105		mg/L		105	80 - 120
Barium	2.00	2.10		mg/L		105	80 - 120
Calcium	10.0	9.49		mg/L		95	80 - 120
Cobalt	0.500	0.527		mg/L		105	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LCS 500-491100/2-A
Matrix: Water
Analysis Batch: 491449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: MB 500-491302/1-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:50	1
Barium	<0.0025		0.0025		mg/L		06/21/19 07:59	06/24/19 14:50	1
Boron	0.0643		0.050		mg/L		06/21/19 07:59	06/24/19 14:50	1
Calcium	<0.20		0.20		mg/L		06/21/19 07:59	06/24/19 14:50	1
Cobalt	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:50	1
Lead	<0.00050		0.00050		mg/L		06/21/19 07:59	06/24/19 14:50	1
Molybdenum	<0.0050		0.0050		mg/L		06/21/19 07:59	06/24/19 14:50	1
Selenium	<0.0025		0.0025		mg/L		06/21/19 07:59	06/24/19 14:50	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-491302/2-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.106		mg/L		106	80 - 120
Barium	2.00	2.08		mg/L		104	80 - 120
Boron	1.00	1.00		mg/L		100	80 - 120
Calcium	10.0	9.25		mg/L		92	80 - 120
Cobalt	0.500	0.517		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	1.01		mg/L		101	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: MB 500-491497/1-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 12:24	1
Barium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 12:24	1
Boron	<0.050		0.050		mg/L		06/22/19 08:08	06/24/19 12:24	1
Calcium	<0.20		0.20		mg/L		06/22/19 08:08	06/24/19 12:24	1
Cobalt	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 12:24	1
Lead	<0.00050		0.00050		mg/L		06/22/19 08:08	06/24/19 12:24	1
Molybdenum	<0.0050		0.0050		mg/L		06/22/19 08:08	06/24/19 12:24	1
Selenium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 12:24	1

Lab Sample ID: LCS 500-491497/2-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0997		mg/L		100	80 - 120
Barium	2.00	2.00		mg/L		100	80 - 120
Boron	1.00	0.984		mg/L		98	80 - 120
Calcium	10.0	8.91		mg/L		89	80 - 120
Cobalt	0.500	0.515		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.980		mg/L		98	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120

Lab Sample ID: MB 500-491981/1-A
Matrix: Water
Analysis Batch: 492312

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:00	1
Barium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:00	1
Calcium	<0.20		0.20		mg/L		06/25/19 15:30	06/26/19 17:00	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:00	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:00	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/19 15:30	06/26/19 17:00	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:00	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-491981/1-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/25/19 15:30	06/27/19 11:35	1

Lab Sample ID: LCS 500-491981/2-A
Matrix: Water
Analysis Batch: 492312

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.107		mg/L		107	80 - 120
Barium	2.00	2.27		mg/L		114	80 - 120
Calcium	10.0	9.49		mg/L		95	80 - 120
Cobalt	0.500	0.544		mg/L		109	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	1.07		mg/L		107	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LCS 500-491981/2-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: 500-165270-9 MS
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0056		0.100	0.116		mg/L		110	75 - 125
Barium	0.059		2.00	2.31		mg/L		112	75 - 125
Calcium	160		10.0	161	4	mg/L		55	75 - 125
Cobalt	<0.0010		0.500	0.507		mg/L		101	75 - 125
Lead	<0.00050		0.100	0.104		mg/L		104	75 - 125
Molybdenum	0.89		1.00	1.95		mg/L		107	75 - 125
Selenium	<0.0025		0.100	0.113		mg/L		113	75 - 125

Lab Sample ID: 500-165270-9 MS
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.9		1.00	6.89	4	mg/L		101	75 - 125

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0056		0.100	0.113		mg/L		108	75 - 125	2	20
Barium	0.059		2.00	2.25		mg/L		110	75 - 125	2	20
Calcium	160		10.0	159	4	mg/L		33	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	<0.0010		0.500	0.499		mg/L		100	75 - 125	2	20
Lead	<0.00050		0.100	0.101		mg/L		101	75 - 125	3	20
Molybdenum	0.89		1.00	1.91		mg/L		102	75 - 125	2	20
Selenium	<0.0025		0.100	0.111		mg/L		111	75 - 125	2	20

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.9		1.00	7.14	4	mg/L		125	75 - 125	4	20

Lab Sample ID: 500-165270-9 DU
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0056		0.00564		mg/L		0	20
Barium	0.059		0.0589		mg/L		0.9	20
Calcium	160		156		mg/L		0	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.89		0.888		mg/L		0	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-165270-9 DU
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.9		6.22		mg/L		6	20

Lab Sample ID: MB 500-492189/1-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/26/19 15:03	06/27/19 14:33	1
Barium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 14:33	1
Calcium	<0.20		0.20		mg/L		06/26/19 15:03	06/27/19 14:33	1
Cobalt	<0.0010		0.0010		mg/L		06/26/19 15:03	06/27/19 14:33	1
Lead	<0.00050		0.00050		mg/L		06/26/19 15:03	06/27/19 14:33	1
Molybdenum	<0.0050		0.0050		mg/L		06/26/19 15:03	06/27/19 14:33	1
Selenium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 14:33	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-492189/1-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/26/19 15:03	06/28/19 13:41	1

Lab Sample ID: LCS 500-492189/2-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.100		mg/L		100	80 - 120
Barium	2.00	2.06		mg/L		103	80 - 120
Calcium	10.0	9.37		mg/L		94	80 - 120
Cobalt	0.500	0.554		mg/L		111	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LCS 500-492189/2-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0060		0.100	0.111		mg/L		105	75 - 125
Barium	0.091	V	2.00	2.10		mg/L		101	75 - 125
Calcium	57	V	10.0	65.3	4	mg/L		81	75 - 125
Cobalt	0.0021		0.500	0.513		mg/L		102	75 - 125
Lead	0.0024		0.100	0.107		mg/L		105	75 - 125
Molybdenum	0.25	V	1.00	1.33		mg/L		108	75 - 125
Selenium	<0.0025		0.100	0.107		mg/L		107	75 - 125

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 492835

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	3.5		1.00	4.53		mg/L		104	75 - 125

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0060		0.100	0.112		mg/L		106	75 - 125	1	20
Barium	0.091	V	2.00	2.09		mg/L		100	75 - 125	0	20
Calcium	57	V	10.0	66.5	4	mg/L		93	75 - 125	2	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.0021		0.500	0.523		mg/L		104	75 - 125	2	20
Lead	0.0024		0.100	0.107		mg/L		105	75 - 125	0	20
Molybdenum	0.25	V	1.00	1.35		mg/L		109	75 - 125	1	20
Selenium	<0.0025		0.100	0.108		mg/L		108	75 - 125	1	20

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492835

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	3.5		1.00	4.43		mg/L		94	75 - 125	2	20

Lab Sample ID: 500-165270-13 DU
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0060		0.00604		mg/L		1	20
Barium	0.091	V	0.0933		mg/L		3	20
Calcium	57	V	58.3		mg/L		2	20
Cobalt	0.0021		0.00210		mg/L		2	20
Lead	0.0024		0.00240		mg/L		1	20
Molybdenum	0.25	V	0.260		mg/L		2	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-165270-13 DU
Matrix: Water
Analysis Batch: 492835

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	3.5		3.38		mg/L		3	20

Lab Sample ID: MB 500-492252/1-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/27/19 07:17	06/27/19 16:18	1
Barium	<0.0025		0.0025		mg/L		06/27/19 07:17	06/27/19 16:18	1
Calcium	<0.20		0.20		mg/L		06/27/19 07:17	06/27/19 16:18	1
Cobalt	<0.0010		0.0010		mg/L		06/27/19 07:17	06/27/19 16:18	1
Lead	<0.00050		0.00050		mg/L		06/27/19 07:17	06/27/19 16:18	1
Molybdenum	<0.0050		0.0050		mg/L		06/27/19 07:17	06/27/19 16:18	1
Selenium	<0.0025		0.0025		mg/L		06/27/19 07:17	06/27/19 16:18	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-492252/1-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/27/19 07:17	06/28/19 14:26	1

Lab Sample ID: LCS 500-492252/2-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.102		mg/L		102	80 - 120
Barium	2.00	2.12		mg/L		106	80 - 120
Calcium	10.0	9.45		mg/L		94	80 - 120
Cobalt	0.500	0.566		mg/L		113	80 - 120
Lead	0.100	0.113		mg/L		113	80 - 120
Molybdenum	1.00	1.05		mg/L		105	80 - 120
Selenium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: LCS 500-492252/2-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.09		mg/L		109	80 - 120

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0074		0.100	0.115		mg/L		108	75 - 125
Barium	0.041		2.00	2.11		mg/L		104	75 - 125
Calcium	57		10.0	66.4	4	mg/L		96	75 - 125
Cobalt	<0.0010		0.500	0.541		mg/L		108	75 - 125
Lead	<0.00050		0.100	0.106		mg/L		106	75 - 125
Molybdenum	0.065		1.00	1.16		mg/L		110	75 - 125
Selenium	<0.0025	F1	0.100	0.0823		mg/L		82	75 - 125

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 492835

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.4		1.00	6.52	4	mg/L		108	75 - 125

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0074		0.100	0.113		mg/L		106	75 - 125	1	20
Barium	0.041		2.00	2.14		mg/L		105	75 - 125	1	20
Calcium	57		10.0	67.3	4	mg/L		105	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	<0.0010		0.500	0.541		mg/L		108	75 - 125	0	20
Lead	<0.00050		0.100	0.107		mg/L		107	75 - 125	0	20
Molybdenum	0.065		1.00	1.14		mg/L		108	75 - 125	2	20
Selenium	<0.0025	F1	0.100	0.0727	F1	mg/L		73	75 - 125	12	20

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492835

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.4		1.00	6.79	4	mg/L		135	75 - 125	4	20

Lab Sample ID: 500-165270-16 DU
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0074		0.00719		mg/L		2	20
Barium	0.041		0.0405		mg/L		0.6	20
Calcium	57		56.0		mg/L		1	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.065		0.0634		mg/L		2	20
Selenium	<0.0025	F1	<0.0025		mg/L		NC	20

Lab Sample ID: 500-165270-16 DU
Matrix: Water
Analysis Batch: 492835

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.4		5.47		mg/L		0.5	20

Lab Sample ID: MB 500-492495/1-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/28/19 07:48	06/28/19 17:25	1
Barium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 17:25	1
Calcium	<0.20		0.20		mg/L		06/28/19 07:48	06/28/19 17:25	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 07:48	06/28/19 17:25	1
Lead	<0.00050		0.00050		mg/L		06/28/19 07:48	06/28/19 17:25	1
Molybdenum	<0.0050		0.0050		mg/L		06/28/19 07:48	06/28/19 17:25	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 17:25	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-492495/1-A
Matrix: Water
Analysis Batch: 492965

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/28/19 07:48	07/01/19 10:55	1

Lab Sample ID: LCS 500-492495/2-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	2.00	2.10		mg/L		105	80 - 120
Calcium	10.0	9.26		mg/L		93	80 - 120
Cobalt	0.500	0.514		mg/L		103	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	0.984		mg/L		98	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120

Lab Sample ID: LCS 500-492495/2-A
Matrix: Water
Analysis Batch: 492965

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: MB 500-492638/1-A
Matrix: Water
Analysis Batch: 493500

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/28/19 15:43	07/03/19 14:06	1
Barium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 14:06	1
Boron	<0.050		0.050		mg/L		06/28/19 15:43	07/03/19 14:06	1
Calcium	<0.20		0.20		mg/L		06/28/19 15:43	07/03/19 14:06	1
Cobalt	<0.0010	^	0.0010		mg/L		06/28/19 15:43	07/03/19 14:06	1
Lead	<0.00050		0.00050		mg/L		06/28/19 15:43	07/03/19 14:06	1
Molybdenum	<0.0050		0.0050		mg/L		06/28/19 15:43	07/03/19 14:06	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 14:06	1

Lab Sample ID: LCS 500-492638/2-A
Matrix: Water
Analysis Batch: 493500

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0994		mg/L		99	80 - 120
Barium	2.00	2.12		mg/L		106	80 - 120
Boron	1.00	0.973		mg/L		97	80 - 120
Calcium	10.0	9.45		mg/L		94	80 - 120
Cobalt	0.500	0.534	^	mg/L		107	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Molybdenum	1.00	0.989		mg/L		99	80 - 120
Selenium	0.100	0.0981		mg/L		98	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-491082/1
Matrix: Water
Analysis Batch: 491082

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/19/19 22:57	1

Lab Sample ID: LCS 500-491082/2
Matrix: Water
Analysis Batch: 491082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	270		mg/L		108	80 - 120

Lab Sample ID: MB 500-491283/1
Matrix: Water
Analysis Batch: 491283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/21/19 05:47	1

Lab Sample ID: LCS 500-491283/2
Matrix: Water
Analysis Batch: 491283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	264		mg/L		106	80 - 120

Lab Sample ID: 500-165270-5 DU
Matrix: Water
Analysis Batch: 491283

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	460		476		mg/L		3	5

Lab Sample ID: MB 500-491581/1
Matrix: Water
Analysis Batch: 491581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/24/19 01:57	1

Lab Sample ID: LCS 500-491581/2
Matrix: Water
Analysis Batch: 491581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	252		mg/L		101	80 - 120

Lab Sample ID: MB 500-492063/1
Matrix: Water
Analysis Batch: 492063

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/26/19 07:31	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 500-492063/2
Matrix: Water
Analysis Batch: 492063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	286		mg/L		114	80 - 120

Lab Sample ID: MB 500-492315/1
Matrix: Water
Analysis Batch: 492315

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/27/19 09:37	1

Lab Sample ID: LCS 500-492315/2
Matrix: Water
Analysis Batch: 492315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	270		mg/L		108	80 - 120

Lab Sample ID: MB 500-492545/1
Matrix: Water
Analysis Batch: 492545

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/28/19 09:47	1

Lab Sample ID: LCS 500-492545/2
Matrix: Water
Analysis Batch: 492545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	258		mg/L		103	80 - 120

Lab Sample ID: MB 500-492785/1
Matrix: Water
Analysis Batch: 492785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/30/19 23:23	1

Lab Sample ID: LCS 500-492785/2
Matrix: Water
Analysis Batch: 492785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	258		mg/L		103	80 - 120

Lab Sample ID: 500-165270-19 DU
Matrix: Water
Analysis Batch: 492785

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1400		1380		mg/L		0.1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-492003/4
Matrix: Water
Analysis Batch: 492003

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/25/19 15:55	1

Lab Sample ID: LCS 500-492003/5
Matrix: Water
Analysis Batch: 492003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.8		mg/L		104	85 - 115

Lab Sample ID: 500-165270-5 MS
Matrix: Water
Analysis Batch: 492003

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.2		50.0	56.0		mg/L		94	75 - 125

Lab Sample ID: 500-165270-5 MSD
Matrix: Water
Analysis Batch: 492003

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.2		50.0	55.7		mg/L		93	75 - 125	1	20

Lab Sample ID: MB 500-492303/4
Matrix: Water
Analysis Batch: 492303

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/25/19 18:32	1

Lab Sample ID: LCS 500-492303/5
Matrix: Water
Analysis Batch: 492303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.9		mg/L		104	85 - 115

Lab Sample ID: 500-165270-8 MS
Matrix: Water
Analysis Batch: 492303

Client Sample ID: T08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	161		mg/L		95	75 - 125

Lab Sample ID: 500-165270-8 MSD
Matrix: Water
Analysis Batch: 492303

Client Sample ID: T08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	163		mg/L		99	75 - 125	1	20

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-493145/12
Matrix: Water
Analysis Batch: 493145

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/02/19 15:59	1

Lab Sample ID: LCS 500-493145/13
Matrix: Water
Analysis Batch: 493145

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.1		mg/L		102	85 - 115

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 493145

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	151		mg/L		89	75 - 125

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 493145

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	146		mg/L		80	75 - 125	3	20

Lab Sample ID: 500-165270-14 MS
Matrix: Water
Analysis Batch: 493145

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	159		mg/L		102	75 - 125

Lab Sample ID: 500-165270-14 MSD
Matrix: Water
Analysis Batch: 493145

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	156		mg/L		96	75 - 125	2	20

Lab Sample ID: MB 500-493994/12
Matrix: Water
Analysis Batch: 493994

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/09/19 12:05	1

Lab Sample ID: LCS 500-493994/13
Matrix: Water
Analysis Batch: 493994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.8		mg/L		102	85 - 115

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 493994

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	220		50.0	253	4	mg/L		69	75 - 125

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 493994

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	220		50.0	256	4	mg/L		74	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-491896/3
Matrix: Water
Analysis Batch: 491896

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			06/22/19 13:46	1

Lab Sample ID: LCS 500-491896/4
Matrix: Water
Analysis Batch: 491896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.6		mg/L		106	80 - 120

Lab Sample ID: MB 500-493622/3
Matrix: Water
Analysis Batch: 493622

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/05/19 21:46	1

Lab Sample ID: LCS 500-493622/4
Matrix: Water
Analysis Batch: 493622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.0		mg/L		100	80 - 120

Lab Sample ID: 500-165270-10 MS
Matrix: Water
Analysis Batch: 493622

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.24		5.00	5.18		mg/L		99	75 - 125

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 500-165270-10 MSD
Matrix: Water
Analysis Batch: 493622

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.24		5.00	5.20		mg/L		99	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-446113/18
Matrix: Water
Analysis Batch: 446113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/28/19 13:25	1

Lab Sample ID: LCS 400-446113/19
Matrix: Water
Analysis Batch: 446113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		94	90 - 110

Lab Sample ID: MRL 400-446113/15
Matrix: Water
Analysis Batch: 446113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.08		mg/L		102	50 - 150

Lab Sample ID: MB 400-446149/6
Matrix: Water
Analysis Batch: 446149

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/28/19 14:19	1

Lab Sample ID: LCS 400-446149/7
Matrix: Water
Analysis Batch: 446149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		95	90 - 110

Lab Sample ID: MRL 400-446149/3
Matrix: Water
Analysis Batch: 446149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		99	50 - 150

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 500-165270-5 MS
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	89		10.0	95.6	4	mg/L		71	77 - 128

Lab Sample ID: 500-165270-5 MSD
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	89		10.0	95.1	4	mg/L		65	77 - 128	1	5

Lab Sample ID: 500-165270-15 MS
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	450		9.90	350	4	mg/L		-965	77 - 128

Lab Sample ID: 500-165270-15 MSD
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	450		9.90	348	4	mg/L		-980	77 - 128	0	5

Lab Sample ID: MB 400-447593/6
Matrix: Water
Analysis Batch: 447593

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			07/11/19 12:40	1

Lab Sample ID: LCS 400-447593/7
Matrix: Water
Analysis Batch: 447593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.5		mg/L		96	90 - 110

Lab Sample ID: MRL 400-447593/3
Matrix: Water
Analysis Batch: 447593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		89	50 - 150

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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Company:
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Address:
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Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

48 hr.

Temperature °C of Cooler: 3.8

Client	Client Project #	Preservative	3	3	3	3	8				
Midwest Generation EME LLC											
Project Name: Joliet #9 CCR - 2Q19 GW		Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4				
Project Location/State: University Park, IL	Lab Project #										
Sampler: Noe L., Rob P.	Lab PM: Eric Lang										

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix									
1		G205	06/18/19	1045	5	W	1	1	1	1	1				

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/18/19	1455	Paula Dudley	TACH	6/18/19	1455
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

7/15/2019

TestAmerica

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Fax:
PO#/Reference#

500-165270 COC

Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page ____ of ____

48 hr.

Temperature °C of Cooler: 2.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL.
Lab Project #:
Sampler: Noe G, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	A					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
2		G445	06/19/19	1054	5	W		✓	✓	✓	✓	✓					
3		G465	06/19/19	1200	5	W		✓	✓	✓	✓	✓					
4		R085	06/19/19	1305	5	W		✓	✓	✓	✓	✓					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	06/19/19	1448		TA	6-19-19	1448
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

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Fax:
E-Mail:

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Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page _____ of _____

48 gf Temperature °C of Cooler: 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Noe Ly Rob P.
Lab PM: Eric Lang

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
5		T06S	06/20/19	1040	5	GW		✓	✓	✓	✓	✓					
6		T05S	06/20/19	1332	5	GW		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/20/19	1550	Paula Buckley	TACHI	6/20/19	1550
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

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Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page _____ of _____

48 gt

Temperature °C of Cooler: 0.5 - 2.5

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Nick L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8				
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4				
1		T09S	06/21/19	0948	5	W		✓	✓	✓	✓	✓				
8		T08S	06/21/19	1247	5	W		✓	✓	✓	✓	✓				

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TA	06/21/19	1505	Pallen Buckley	TA CAL	6/21/19	1505
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
							6/21/19
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

7/15/2019

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.7-3.7

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Noe L.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
9		G31S	06/24/19	1000	5	G		✓	✓	✓	✓	✓					
10		DUP	06/24/19	1000	5	G		✓	✓	✓	✓	✓					DUP of G31S
11		G33S	06/24/19	1237	5	G		✓	✓	✓	✓	✓					
12		TO3S	06/24/19	1358	5	G		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/24/19	1525	[signature]	TA-CHI	6/25/19	0750
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

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Phone: 708.534.5200 Fax: 708.534

500-165270 COC

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Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

48 hr, Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Ric L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8				
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4				
13		TO2S	06/25/19	0934	5	W		✓	✓	✓	✓	✓				
14		G48S	06/25/19	1336	5	W		✓	✓	✓	✓	✓				

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/25/19	1529	[signature]	TA-CHI	6/25/19	1529
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

48hr Temperature °C of Cooler: 0.1 +2.1

Client	Client Project #
Midwest Generation EME LLC	
Project Name: Joliet #9 CCR-2019 GW	
Project Location/State: University Park, IL	Lab Project #
Sampler: Nac L., Rob P.	Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Fe, Li, Mo, S	TDS, Fl, Cl, SO4					
15		T01S	06/26/19	0927	5	W		1	1	1	1	1					
16		G30S	06/26/19	1318	5	W		1	1	1	1	1					

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/26/19	1528	Dawn Buckley	TACHT	6/26/19	1528
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier X
Shipped
Hand Delivered

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-2019 GW
Project Location/State: University Park IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226	Parameter: Radium 228	Parameter: Radium 226/228	Parameter: Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	Parameter: TDS, Fl, Cl, SO4	Comments
							3					8	
17		R32S	06/27/19	1159	5	W	✓	✓	✓	✓	✓	✓	
18		T04S	06/27/19	1315	5	W	✓	✓	✓	✓	✓	✓	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TA	06/27/19	1533	Ellie Roth	TA-CHI	6/28/19	1533
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

30 gal. Temperature °C of Cooler: 0.3 → 1.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Nose L., Rob
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
19		G47S	06/28/19	0910	5	W		1	1	1	1	1					
20		G45S	06/28/19	1031	5	W		1	1	1	1	1					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/28/19	1207	[signature]	TA-CHI	6/28/19	1207
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122460.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
G20S (500-165270-1)	6/18/19	10:45 Central		Water			X	1	
G44S (500-165270-2)	6/19/19	10:54 Central		Water			X	1	
G46S (500-165270-3)	6/19/19	12:00 Central		Water			X	1	
R08S (500-165270-4)	6/19/19	13:05 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 6/19/19 1600	Company: TA	Received by: Megan Hamilton	Date/Time: 6-20-19 1001	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.0°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122582.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T06S (500-165270-5)	6/20/19	10:40 Central		Water			X	1	
T05S (500-165270-6)	6/20/19	13:32 Central		Water			X	1	
T09S (500-165270-7)	6/21/19	09:48 Central		Water			X	1	
T08S (500-165270-8)	6/21/19	12:47 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	6-24-19 1000	TA	Megan Hardcastle	6-26-19 857	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.0°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122619.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
G31S (500-165270-9)	6/24/19	10:00 Central		Water			X	1	
DUP (500-165270-10)	6/24/19	10:00 Central		Water			X	1	
G33S (500-165270-11)	6/24/19	12:37 Central		Water			X	1	
T03S (500-165270-12)	6/24/19	13:58 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6/25/19 1315	TA-CHI			
2	Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 6/26/19 857	Company TA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122644.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T02S (500-165270-13)	6/25/19	09:34 Central		Water			X	1	
G48S (500-165270-14)	6/25/19	13:36 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6/25/19 1600	TA			
2						
3					6/26/19 857	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122680.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive,	Due Date Requested: 7/5/2019	Analysis Requested		Preservation Codes:
City: Pensacola	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T01S (500-165270-15)	6/26/19	09:27 Central		Water			X	1	
G30S (500-165270-16)	6/26/19	13:18 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6/26/19 1555	TA-CHI			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				6/27/19 9:21	TA

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0°C IR7

Ver: 01/16/2019

7/15/2019

fins TestAmericа, Chicago
Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122723.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - Di Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
R32S (500-165270-17)	6/27/19	11:59 Central		Water			X	1	
T04S (500-165270-18)	6/27/19	13:15 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/27/19 1550	TALCAL			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 8/28/19 8:30	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122746.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive,	Due Date Requested: 7/16/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
G47S (500-165270-19)	6/28/19	09:10 Central		Water			X	1	
G45S (500-165270-20)	6/28/19	10:31 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/28/19 1500	TAL	[signature]	6-29-19 919	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7°C IR8

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8, 2.3, 2.6, 2.5,3.7,3.3, 2.1,3.3,1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 4
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/20/19 02:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	760135
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 7
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/26/19 02:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	760320
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 8
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/26/19 03:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	760270
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 10
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/27/19 04:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	760362
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0°C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 12
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/28/19 02:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	760386
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0°C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 14
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/29/19 12:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	760408
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G20S

Lab Sample ID: 500-165270-1
Matrix: Water
Date Collected: 06/18/19 10:45
Date Received: 06/18/19 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			490923	06/19/19 07:40	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491090	06/19/19 16:03	EEN	TAL CHI
Total Recoverable	Prep	3005A			490923	06/19/19 07:40	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491173	06/19/19 18:03	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:35	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	446113	06/28/19 13:43	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/18/19 10:45	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-165270-2
Matrix: Water
Date Collected: 06/19/19 10:54
Date Received: 06/19/19 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491285	06/20/19 13:37	JEF	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491367	06/20/19 16:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		5	491449	06/21/19 11:18	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:38	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:28	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446113	06/28/19 13:46	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/19/19 10:54	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-165270-3
Matrix: Water
Date Collected: 06/19/19 12:00
Date Received: 06/19/19 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491285	06/20/19 13:41	JEF	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491367	06/20/19 16:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		100	491449	06/21/19 11:22	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:40	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:16	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:31	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446113	06/28/19 13:46	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/19/19 12:00	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: R08S

Lab Sample ID: 500-165270-4

Date Collected: 06/19/19 13:05

Matrix: Water

Date Received: 06/19/19 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491285	06/20/19 13:45	JEF	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491367	06/20/19 16:24	FXG	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	491449	06/21/19 11:26	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 18:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:37	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446113	06/28/19 13:46	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/19/19 13:05	JVB	TAL CHI

Client Sample ID: T06S

Lab Sample ID: 500-165270-5

Date Collected: 06/20/19 10:40

Matrix: Water

Date Received: 06/20/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491598	06/21/19 18:55	EEN	TAL CHI
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 14:58	DAJ	TAL CHI
Total/NA	Analysis	SM 2540C		1	491283	06/21/19 06:12	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	446149	06/28/19 15:03	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/20/19 10:40	JVB	TAL CHI

Client Sample ID: T05S

Lab Sample ID: 500-165270-6

Date Collected: 06/20/19 13:32

Matrix: Water

Date Received: 06/20/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491598	06/21/19 18:59	EEN	TAL CHI
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 15:02	DAJ	TAL CHI
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6020A		100	492086	06/25/19 11:42	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491283	06/21/19 06:18	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:14	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 15:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:03	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/20/19 13:32	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T09S

Lab Sample ID: 500-165270-7

Date Collected: 06/21/19 09:48

Matrix: Water

Date Received: 06/21/19 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	491700	06/24/19 12:14	JEF	TAL CHI
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 14:42	DAJ	TAL CHI
Total/NA	Analysis	SM 2540C		1	491581	06/24/19 02:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 15:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/21/19 09:48	JVB	TAL CHI

Client Sample ID: T08S

Lab Sample ID: 500-165270-8

Date Collected: 06/21/19 12:47

Matrix: Water

Date Received: 06/21/19 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	491700	06/24/19 12:18	JEF	TAL CHI
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 14:46	DAJ	TAL CHI
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492086	06/25/19 11:46	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491581	06/24/19 02:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:19	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 15:09	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/21/19 12:47	JVB	TAL CHI

Client Sample ID: G31S

Lab Sample ID: 500-165270-9

Date Collected: 06/24/19 10:00

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:08	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:15	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492594	06/27/19 11:42	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 07:59	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 21:56	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 10:00	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: DUP

Lab Sample ID: 500-165270-10

Date Collected: 06/24/19 10:00

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:28	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:33	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492594	06/27/19 12:09	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:02	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 21:58	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 10:00	JVB	TAL CHI

Client Sample ID: G33S

Lab Sample ID: 500-165270-11

Date Collected: 06/24/19 12:37

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:32	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:37	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	492594	06/27/19 12:12	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:04	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492303	06/25/19 18:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 12:37	JVB	TAL CHI

Client Sample ID: T03S

Lab Sample ID: 500-165270-12

Date Collected: 06/24/19 13:58

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:44	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:41	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	492594	06/27/19 12:16	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:07	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:22	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:10	EAT	TAL CHI

Client Sample ID: T03S
Lab Sample ID: 500-165270-12

Date Collected: 06/24/19 13:58
Matrix: Water
Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 13:58	JVB	TAL CHI

Client Sample ID: T02S
Lab Sample ID: 500-165270-13

Date Collected: 06/25/19 09:34
Matrix: Water
Date Received: 06/25/19 15:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 16:39	EEN	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 14:40	ASF	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	492835	06/28/19 13:49	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493145	07/02/19 16:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:12	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/25/19 09:34	JVB	TAL CHI

Client Sample ID: G48S
Lab Sample ID: 500-165270-14

Date Collected: 06/25/19 13:36
Matrix: Water
Date Received: 06/25/19 15:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 17:09	EEN	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 15:06	ASF	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492835	06/28/19 14:15	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:12	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493145	07/02/19 16:50	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/25/19 13:36	JVB	TAL CHI

Client Sample ID: T01S
Lab Sample ID: 500-165270-15

Date Collected: 06/26/19 09:27
Matrix: Water
Date Received: 06/26/19 15:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 17:21	EEN	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T01S

Lab Sample ID: 500-165270-15

Date Collected: 06/26/19 09:27

Matrix: Water

Date Received: 06/26/19 15:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 16:29	ASF	TAL CHI
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		10	492835	06/28/19 14:34	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492315	06/27/19 09:55	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493145	07/02/19 16:52	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:27	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:16	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/26/19 09:27	JVB	TAL CHI

Client Sample ID: G30S

Lab Sample ID: 500-165270-16

Date Collected: 06/26/19 13:18

Matrix: Water

Date Received: 06/26/19 15:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 17:25	EEN	TAL CHI
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 16:33	ASF	TAL CHI
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	492835	06/28/19 14:37	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492315	06/27/19 09:57	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493994	07/09/19 13:22	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:16	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/26/19 13:18	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-165270-17

Date Collected: 06/27/19 11:59

Matrix: Water

Date Received: 06/27/19 15:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492795	06/28/19 16:59	JEF	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492835	06/28/19 18:14	FXG	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	492965	07/01/19 11:03	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492545	06/28/19 10:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	493994	07/09/19 12:20	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 16:29	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/27/19 11:59	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T04S

Lab Sample ID: 500-165270-18

Date Collected: 06/27/19 13:15
Date Received: 06/27/19 15:33

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492795	06/28/19 17:11	JEF	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492835	06/28/19 18:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492965	07/01/19 11:09	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492545	06/28/19 10:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	493994	07/09/19 12:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:37	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	446149	06/28/19 15:19	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/27/19 13:15	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-165270-19

Date Collected: 06/28/19 09:10
Date Received: 06/28/19 12:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492905	07/01/19 12:16	JEF	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	493500	07/03/19 15:06	FXG	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	494590	07/11/19 18:47	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492785	06/30/19 23:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493994	07/09/19 13:23	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:40	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	447593	07/11/19 13:30	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/28/19 09:10	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-165270-20

Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492905	07/01/19 12:20	JEF	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	493500	07/03/19 15:10	FXG	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	494590	07/11/19 18:51	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492785	06/30/19 23:33	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493994	07/09/19 13:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:44	EAT	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G45S

Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	447593	07/11/19 13:30	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/28/19 10:31	JVB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/18/19 Start Purge: 1025 (2400 Hr. Clock) End Purge: 1045

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.26

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 39.03 (ft.)
Ground Water Elev. 541.30 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.20	7.18	7.18	(std.)
SC	596	599	599	(umhos/cm)
Temp.	21.45	21.48	21.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 65°F, Cloudy, E winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 39.03 - 2.78 = ~~32.6~~ 36.25 07/15/19 MB
Levels were taken on 06/18/19 @ 1015.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/19/19 Start Purge: 1035 (2400 Hr. Clock) End Purge: 1054

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.05 (ft.)
Ground Water Elev. 506.64 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.01	7.02	7.02	(std.)
SC	968	969	969	(umhos/cm)
Temp.	16.08	15.99	15.99	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 79°F, Sunny, NE winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.05 - 2.18 = 77.87 (ft.)
Levels were taken on 06/19/19 @ 1025.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/19/19 Start Purge: 1140 (2400 Hr. Clock) End Purge: 1200

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.70 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.32 (ft./msl)
Water Level 101.40 (ft.)
Ground Water Elev. 499.92 (ft./msl)
Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.65	7.64	7.64	(std.)
SC	1,205	1,216	1,216	(umhos/cm)
Temp.	14.11	14.14	14.14	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 79 °F, Partly Cloudy, NE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 101.40 - 2.70 = 98.70 (RL)
Levels were taken on 06/19/19 @ 1135.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-4

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/19/19 Start Purge: 1250 (2400 Hr. Clock) End Purge: 1305

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.62 (ft./msl)
Water Level 67.24 (ft.)
Ground Water Elev. 511.38 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.10	8.10	8.10	(std.)
SC	954	958	958	(umhos/cm)
Temp.	14.03	14.08	14.08	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 77°F, Mostly Cloudy, E winds 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 67.24 - 2.55 = 64.69 (ft.)
Levels were taken on 06/19/19 @ 1245.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T06S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y)(N)
Sampling Bladder Pump Dedicated (Y)(N)

PURGING INFORMATION

Purge Date: 06/20/19 Start Purge: 1020 (2400 Hr. Clock) End Purge: 1040

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.30 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 621.02 (ft./msl)
Water Level 112.05 (ft.)
Ground Water Elev. 508.97 (ft./msl)
Well Bottom Elevation * 447.94 (ft./msl)

	1st	2nd	Final	
pH	7.04	7.05	7.05	(std.)
SC	692	695	695	(umhos/cm)
Temp.	19.96	19.98	19.98	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 63°F, Cloudy, N winds e 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 112.05 - 2.30 = 109.75 (ft)
Levels were taken on 06/20/19 @ 1005.
* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T05S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-16

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/20/19 Start Purge: 1310 (2400 Hr. Clock) End Purge: 1332

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.71

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 623.45 (ft./msl)

Water Level 116.82 (ft.)

Ground Water Elev. 506.63 (ft./msl)

Well Bottom Elevation * 448.35 (ft./msl)

	1st	2nd	Final	
pH	10.12	10.13	10.13	(std.)
SC	2,110	2,110	2,110	(umhos/cm)
Temp.	16.37	16.35	16.35	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 63°F, Cloudy, N winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 116.82 - 2.40 = 114.42 (ft.)

Levels were taken on 06/20/19 @ 1255.

* Total Deth = 175.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T09S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/21/19 Start Purge: 0930 (2400 Hr. Clock) End Purge: 0948

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.58

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.40 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 603.74 (ft./msl)
Water Level 102.19 (ft.)
Ground Water Elev. 501.55 (ft./msl)
Well Bottom Elevation * 444.80 (ft./msl)

	1st	2nd	Final	
pH	7.30	7.29	7.29	(std.)
SC	1124	1127	1127	(umhos/cm)
Temp.	20.28	20.30	20.30	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 72°F, Sunny, E winds 5-10 mph

Other: *Reference Measurement (updated 02/19/14)
Depth To Water from L.S. = 102.19 - 2.40 = 99.79 (ft.)
Levels were taken on 06/21/19 @ 0915.
* Total Depth: 158.59

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/21/19 Start Purge: 1225 (2400 Hr. Clock) End Purge: 1247

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.57

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.38 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 627.39 (ft./msl)
Water Level 124.57 (ft.)
Ground Water Elev. 502.82 (ft./msl)
Well Bottom Elevation * 447.38 (ft./msl)

	1st	2nd	Final	
pH	8.12	8.15	8.15	(std.)
SC	1,186	1,180	1,180	(umhos/cm)
Temp.	22.56	22.48	22.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 74°F, Sunny, E winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 124.57 - 2.38 = 122.19 (ft)
Levels were taken on 06/21/19 @ 1210.
* Total Deth = 180.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/19 Start Purge: 0940 (2400 Hr. Clock) End Purge: 1000

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.58 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.78 (ft./msl)

Water Level 25.87 (ft.)

Ground Water Elev. 509.91 (ft./msl)

Well Bottom Elevation *453.36 (ft./msl)

	1st	2nd	Final	
pH	7.15	7.16	7.16	(std.)
SC	1,422	1,424	1,424	(umhos/cm)
Temp.	15.32	15.39	15.39	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 71°F, Cloudy, SW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 25.87 - 2.58 = 23.29 (ft)

Levels were taken on 06/24/19 @ 0930.

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-116270-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 2.58 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *535.78 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *453.36 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. = _____

Levels were taken on @ .

(Updated: 06-24-2019)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-11

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/19 Start Purge: 1215 (2400 Hr. Clock) End Purge: 1237

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.57

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 1.73 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.66 (ft./msl)

Water Level 25.82 (ft.)

Ground Water Elev. 509.84 (ft./msl)

Well Bottom Elevation *452.72 (ft./msl)

	1st	2nd	Final	
pH	7.37	7.37	7.37	(std.)
SC	626	615	615	(umhos/cm)
Temp.	15.81	15.89	15.89	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Gray, Slight Turbidity, No Odor

Weather Conditions: 72°F, Rain, SW wind 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 25.82 - 1.73 = 24.09 (A.)

Levels were taken on 06/24/19 @ 1200.

Updated: (12-11-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-12

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/19 Start Purge: 1340 (2400 Hr. Clock) End Purge: 1358

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.89 (ft./msl)
Water Level 125.79 (ft.)
Ground Water Elev. 504.10 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.16	7.17	7.17	(std.)
SC	1072	1073	1073	(umhos/cm)
Temp.	14.38	14.38	14.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 72°F, Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 125.79 - 3.08 = 122.71 (ft.)
Levels were taken on 06/24/19 @ 1335.
* Total Depth = 172.95

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T02S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-13

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/25/19 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0934

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.33 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 626.16 (ft./msl)

Water Level 128.60 (ft.)

Ground Water Elev. 497.56 (ft./msl)

Well Bottom Elevation * 453.40 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.40	7.40	(std.)
SC	1141	1147	1147	(umhos/cm)
Temp.	24.02	24.04	24.04	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 76°F, Sunny, SW winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 128.60 - 2.33 = 126.27 (A)

Levels were taken on 06/25/19 @ 0855.

* Total Depth = 172.75

(Updated: 12-11-2018))

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-14

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/25/19 Start Purge: 1315 (2400 Hr. Clock) End Purge: 1336

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.81

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.78 (ft./msl)
Water Level 98.18 (ft.)
Ground Water Elev. 522.60 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	8.08	8.07	8.07	(std.)
SC	1396	1391	1391	(umhos/cm)
Temp.	17.29	17.11	17.11	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 84°F, Sunny, SW winds @ 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 98.18 - 2.45 = 95.73 (ft.)
Levels were taken on 06/25/19 @ 1305

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T01S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-15

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y)(N)

Sampling Bladder Pump Dedicated (Y)(N)

PURGING INFORMATION

Purge Date: 06/26/19 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0927

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.28

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.48 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 621.78 (ft./msl)

Water Level 113.68 (ft.)

Ground Water Elev. 508.10 (ft./msl)

Well Bottom Elevation * 451.46 (ft./msl)

	1st	2nd	Final	
pH	7.42	7.43	7.43	(std.)
SC	1227	1722	1,222	(umhos/cm)
Temp.	22.97	22.98	22.98	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, High Turbidity, Slight Odor

Weather Conditions: 78°F, Sunny, SW winds @ 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 113.68 - 2.48 = 111.20 (ft.)

Levels were taken on 06/26/19 @ 0845.

* Total Depth = 170.00

(Updated 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-16

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/26/19 Start Purge: 1300 (2400 Hr. Clock) End Purge: 1318

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.70 (ft./msl)
Water Level 1.57 (ft.)
Ground Water Elev. 523.13 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.99	7.98	7.98	(std.)
SC	1490	1,500	1500	(umhos/cm)
Temp.	15.83	15.82	15.82	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 86°F, Sunny, SW winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.57 - 2.31 = -0.74 (ft.)
Levels were taken on 06/26/19 @ 1255.

(Updated 10-102018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-17

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/27/19 Start Purge: 1140 (2400 Hr. Clock) End Purge: 1159

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.98

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.99 (ft./msl)
Water Level 19.28 (ft.)
Ground Water Elev. 517.71 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.32	7.33	7.33	(std.)
SC	993	991	991	(umhos/cm)
Temp.	12.69	12.72	12.72	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 87°F, Partly Cloudy, SW wind 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 19.28 - 2.03 = 17.25 (ft.)
Levels were taken on 06/27/19 @ 1130

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T04S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-18

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/27/19 Start Purge: 1255 (2400 Hr. Clock) End Purge: 1315

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.42 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 631.35 (ft./msl)
Water Level 153.31 (ft.)
Ground Water Elev. 478.04 (ft./msl)
Well Bottom Elevation * 458.07 (ft./msl)

	1st	2nd	Final	
pH	7.04	7.05	7.05	(std.)
SC	717	721	721	(umhos/cm)
Temp.	24.60	24.64	24.64	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 88°F, Partly Cloudy, S winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 153.31 - 2.42 = 150.89 (ft.)
Levels were taken on 06/27/19 @ 1245.
* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-19

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/28/19 Start Purge: 0855 (2400 Hr. Clock) End Purge: 0910

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.50 (ft)

Ref. Measuring Pt. TIC

Well Elevation *612.10 (ft./msl)

Water Level 91.78 (ft.)

Ground Water Elev. 520.32 (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.95	9.95	9.95	(std.)
SC	1,790	1800	1800	(umhos/cm)
Temp.	15.82	15.74	15.74	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 81°F, Sunny, SW winds @ 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 91.78 - 2.50 = 89.28 (ft.)

Levels were taken on 06/28/19 @ 0850 .

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-20

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/28/19 Start Purge: 1015 (2400 Hr. Clock) End Purge: 1034

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 62.72 (ft.)
Ground Water Elev. 540.59 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.53	7.51	7.51	(std.)
SC	920	914	914	(umhos/cm)
Temp.	15.44	15.46	15.46	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 84°F, Fair, S winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 62.72 - 2.97 = 59.75 (ft.)
Levels were taken on 06/28/19 @ 1010

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-165270-1
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
7/15/2019 1:51:04 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-165270-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-165270-1

Comments
No additional comments.

Receipt
The samples were received on 6/18/2019 2:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 9 coolers at receipt time were 1.8º C, 2.1º C, 2.3º C, 2.5º C, 2.6º C, 3.3º C, 3.3º C, 3.7º C and 3.8º C.

Metals
Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-492594. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth. (LCS 500-492189/2-A) and (LCS 500-492252/2-A)

Method(s) 6020A: The continuing calibration verification (CCV) at line 53, recovered above the upper control limit for Cobalt bracketing the method blank (MB) and laboratory control sample (LCS). The MB and LCS were within the method control limits. The associated samples were bracketed by CCV that were within control limits. Therefore, the data have been reported. (CCV 500-493500/53)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-165270-1	G20S	Water	06/18/19 10:45	06/18/19 14:55	
500-165270-2	G44S	Water	06/19/19 10:54	06/19/19 14:48	
500-165270-3	G46S	Water	06/19/19 12:00	06/19/19 14:48	
500-165270-4	R08S	Water	06/19/19 13:05	06/19/19 14:48	
500-165270-5	T06S	Water	06/20/19 10:40	06/20/19 15:50	
500-165270-6	T05S	Water	06/20/19 13:32	06/20/19 15:50	
500-165270-7	T09S	Water	06/21/19 09:48	06/21/19 15:05	
500-165270-8	T08S	Water	06/21/19 12:47	06/21/19 15:05	
500-165270-9	G31S	Water	06/24/19 10:00	06/24/19 15:25	
500-165270-10	DUP	Water	06/24/19 10:00	06/24/19 15:25	
500-165270-11	G33S	Water	06/24/19 12:37	06/24/19 15:25	
500-165270-12	T03S	Water	06/24/19 13:58	06/24/19 15:25	
500-165270-13	T02S	Water	06/25/19 09:34	06/25/19 15:29	
500-165270-14	G48S	Water	06/25/19 13:36	06/25/19 15:29	
500-165270-15	T01S	Water	06/26/19 09:27	06/26/19 15:28	
500-165270-16	G30S	Water	06/26/19 13:18	06/26/19 15:28	
500-165270-17	R32S	Water	06/27/19 11:59	06/27/19 15:33	
500-165270-18	T04S	Water	06/27/19 13:15	06/27/19 15:33	
500-165270-19	G47S	Water	06/28/19 09:10	06/28/19 12:07	
500-165270-20	G45S	Water	06/28/19 10:31	06/28/19 12:07	

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G20S

Date Collected: 06/18/19 10:45
Date Received: 06/18/19 14:55

Lab Sample ID: 500-165270-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.041**		0.010		mg/L		06/19/19 07:40	06/19/19 16:03	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/19/19 07:40	06/19/19 18:03	1
Barium	**0.051**		0.0025		mg/L		06/19/19 07:40	06/19/19 18:03	1
Boron	**1.3**		0.050		mg/L		06/19/19 07:40	06/19/19 18:03	1
Calcium	**62**		0.20		mg/L		06/19/19 07:40	06/19/19 18:03	1
Cobalt	**0.0018**		0.0010		mg/L		06/19/19 07:40	06/19/19 18:03	1
Lead	<0.00050		0.00050		mg/L		06/19/19 07:40	06/19/19 18:03	1
Molybdenum	**0.017**		0.0050		mg/L		06/19/19 07:40	06/19/19 18:03	1
Selenium	<0.0025		0.0025		mg/L		06/19/19 07:40	06/19/19 18:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**440**		10		mg/L			06/19/19 23:35	1
Chloride	**13**		2.0		mg/L			06/25/19 16:15	1
Fluoride	**0.75**		0.10		mg/L			06/22/19 14:21	1
Sulfate	**65**		25		mg/L			06/28/19 13:43	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**36.25**				ft			06/18/19 10:45	1
Depth to Water (ft from MP)	**39.03**				ft			06/18/19 10:45	1
Elevation of well (ft from MP)	**580.33**				ft			06/18/19 10:45	1
Field pH	**7.18**				SU			06/18/19 10:45	1
Field Temperature	**70.7**				Degrees F			06/18/19 10:45	1
Ground Water Elevation	**541.30**				ft			06/18/19 10:45	1
Specific Conductance	**599**				umhos/cm			06/18/19 10:45	1
Well bottom elevation	**442.28**				ft			06/18/19 10:45	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G44S

Date Collected: 06/19/19 10:54
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.023**		0.010		mg/L		06/20/19 07:47	06/20/19 13:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:17	1
Barium	**0.062**		0.0025		mg/L		06/20/19 07:47	06/20/19 16:17	1
Boron	**1.3**		0.25		mg/L		06/20/19 07:47	06/21/19 11:18	5
Calcium	**130**		0.20		mg/L		06/20/19 07:47	06/20/19 16:17	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:17	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 16:17	1
Molybdenum	**0.13**		0.0050		mg/L		06/20/19 07:47	06/20/19 16:17	1
Selenium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 16:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**720**		10		mg/L			06/19/19 23:38	1
Chloride	**59**		2.0		mg/L			06/25/19 16:15	1
Fluoride	**0.19**		0.10		mg/L			06/22/19 14:28	1
Sulfate	**140**		100		mg/L			06/28/19 13:46	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**77.87**				ft			06/19/19 10:54	1
Depth to Water (ft from MP)	**80.05**				ft			06/19/19 10:54	1
Elevation of well (ft from MP)	**586.69**				ft			06/19/19 10:54	1
Field pH	**7.02**				SU			06/19/19 10:54	1
Field Temperature	**60.8**				Degrees F			06/19/19 10:54	1
Ground Water Elevation	**506.64**				ft			06/19/19 10:54	1
Specific Conductance	**969**				umhos/cm			06/19/19 10:54	1
Well bottom elevation	**455.11**				ft			06/19/19 10:54	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G46S

Date Collected: 06/19/19 12:00
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.22		0.010		mg/L		06/20/19 07:47	06/20/19 13:41	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014		0.0010		mg/L		06/20/19 07:47	06/20/19 16:20	1
Barium	0.040		0.0025		mg/L		06/20/19 07:47	06/20/19 16:20	1
Boron	13		5.0		mg/L		06/20/19 07:47	06/21/19 11:22	100
Calcium	89		0.20		mg/L		06/20/19 07:47	06/20/19 16:20	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:20	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 16:20	1
Molybdenum	1.8		0.0050		mg/L		06/20/19 07:47	06/20/19 16:20	1
Selenium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 16:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			06/19/19 23:40	1
Chloride	69		2.0		mg/L			06/25/19 16:16	1
Fluoride	0.33		0.10		mg/L			06/22/19 14:31	1
Sulfate	440		150		mg/L			06/28/19 13:46	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.70				ft			06/19/19 12:00	1
Depth to Water (ft from MP)	101.40				ft			06/19/19 12:00	1
Elevation of well (ft from MP)	601.32				ft			06/19/19 12:00	1
Field pH	7.64				SU			06/19/19 12:00	1
Field Temperature	57.4				Degrees F			06/19/19 12:00	1
Ground Water Elevation	499.92				ft			06/19/19 12:00	1
Specific Conductance	1216				umhos/cm			06/19/19 12:00	1
Well bottom elevation	453.62				ft			06/19/19 12:00	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: R08S

Date Collected: 06/19/19 13:05
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.16		0.010		mg/L		06/20/19 07:47	06/20/19 13:45	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0010		mg/L		06/20/19 07:47	06/20/19 16:24	1
Barium	0.044		0.0025		mg/L		06/20/19 07:47	06/20/19 16:24	1
Boron	8.5		1.0		mg/L		06/20/19 07:47	06/21/19 11:26	20
Calcium	140		0.20		mg/L		06/20/19 07:47	06/20/19 16:24	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 16:24	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 16:24	1
Molybdenum	0.37		0.0050		mg/L		06/20/19 07:47	06/20/19 16:24	1
Selenium	0.015		0.0025		mg/L		06/20/19 07:47	06/20/19 16:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		10		mg/L			06/19/19 23:43	1
Chloride	83		10		mg/L			06/25/19 18:36	5
Fluoride	0.14		0.10		mg/L			06/22/19 14:37	1
Sulfate	360		150		mg/L			06/28/19 13:46	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	64.69				ft			06/19/19 13:05	1
Depth to Water (ft from MP)	67.24				ft			06/19/19 13:05	1
Elevation of well (ft from MP)	578.62				ft			06/19/19 13:05	1
Field pH	8.10				SU			06/19/19 13:05	1
Field Temperature	57.4				Degrees F			06/19/19 13:05	1
Ground Water Elevation	511.38				ft			06/19/19 13:05	1
Specific Conductance	958				umhos/cm			06/19/19 13:05	1
Well bottom elevation	453.08				ft			06/19/19 13:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T06S

Date Collected: 06/20/19 10:40
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.027**		0.010		mg/L		06/21/19 07:59	06/21/19 18:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:58	1
Barium	**0.036**		0.0025		mg/L		06/21/19 07:59	06/24/19 14:58	1
Boron	**0.77**	**B**	0.050		mg/L		06/21/19 07:59	06/24/19 14:58	1
Calcium	**90**		0.20		mg/L		06/21/19 07:59	06/24/19 14:58	1
Cobalt	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:58	1
Lead	<0.00050		0.00050		mg/L		06/21/19 07:59	06/24/19 14:58	1
Molybdenum	**0.0085**		0.0050		mg/L		06/21/19 07:59	06/24/19 14:58	1
Selenium	<0.0025		0.0025		mg/L		06/21/19 07:59	06/24/19 14:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**460**		10		mg/L			06/21/19 06:12	1
Chloride	**9.2**		2.0		mg/L			06/25/19 16:17	1
Fluoride	**0.42**		0.10		mg/L			06/22/19 14:57	1
Sulfate	**89**		25		mg/L			06/28/19 15:03	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**109.75**				ft			06/20/19 10:40	1
Depth to Water (ft from MP)	**112.05**				ft			06/20/19 10:40	1
Elevation of well (ft from MP)	**621.02**				ft			06/20/19 10:40	1
Field pH	**7.05**				SU			06/20/19 10:40	1
Field Temperature	**68.0**				Degrees F			06/20/19 10:40	1
Ground Water Elevation	**508.97**				ft			06/20/19 10:40	1
Specific Conductance	**695**				umhos/cm			06/20/19 10:40	1
Well bottom elevation	**447.94**				ft			06/20/19 10:40	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T05S

Date Collected: 06/20/19 13:32
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018		0.010		mg/L		06/21/19 07:59	06/21/19 18:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.14		0.0010		mg/L		06/21/19 07:59	06/24/19 15:02	1
Barium	0.0099		0.0025		mg/L		06/21/19 07:59	06/24/19 15:02	1
Boron	13	B	5.0		mg/L		06/21/19 07:59	06/25/19 11:42	100
Calcium	2.2		0.20		mg/L		06/21/19 07:59	06/24/19 15:02	1
Cobalt	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 15:02	1
Lead	<0.00050		0.00050		mg/L		06/21/19 07:59	06/24/19 15:02	1
Molybdenum	1.1		0.0050		mg/L		06/21/19 07:59	06/24/19 15:02	1
Selenium	0.0056		0.0025		mg/L		06/21/19 07:59	06/24/19 15:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		10		mg/L			06/21/19 06:18	1
Chloride	140		10		mg/L			06/25/19 19:14	5
Fluoride	1.8		0.10		mg/L			06/22/19 15:00	1
Sulfate	530		150		mg/L			06/28/19 15:03	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	114.42				ft			06/20/19 13:32	1
Depth to Water (ft from MP)	116.82				ft			06/20/19 13:32	1
Elevation of well (ft from MP)	623.45				ft			06/20/19 13:32	1
Field pH	10.13				SU			06/20/19 13:32	1
Field Temperature	61.5				Degrees F			06/20/19 13:32	1
Ground Water Elevation	506.63				ft			06/20/19 13:32	1
Specific Conductance	2110				umhos/cm			06/20/19 13:32	1
Well bottom elevation	448.35				ft			06/20/19 13:32	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T09S

Date Collected: 06/21/19 09:48
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-7

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.075		0.010		mg/L		06/22/19 08:08	06/24/19 12:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0035		0.0010		mg/L		06/22/19 08:08	06/24/19 14:42	1
Barium	0.093		0.0025		mg/L		06/22/19 08:08	06/24/19 14:42	1
Boron	4.1		0.050		mg/L		06/22/19 08:08	06/24/19 14:42	1
Calcium	110		0.20		mg/L		06/22/19 08:08	06/24/19 14:42	1
Cobalt	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 14:42	1
Lead	0.00080		0.00050		mg/L		06/22/19 08:08	06/24/19 14:42	1
Molybdenum	0.67		0.0050		mg/L		06/22/19 08:08	06/24/19 14:42	1
Selenium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 14:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	870		10		mg/L			06/24/19 02:20	1
Chloride	120		10		mg/L			06/25/19 19:15	5
Fluoride	0.34		0.10		mg/L			06/22/19 15:05	1
Sulfate	280		100		mg/L			06/28/19 15:07	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	99.79				ft			06/21/19 09:48	1
Depth to Water (ft from MP)	102.19				ft			06/21/19 09:48	1
Elevation of well (ft from MP)	603.74				ft			06/21/19 09:48	1
Field pH	7.29				SU			06/21/19 09:48	1
Field Temperature	68.5				Degrees F			06/21/19 09:48	1
Ground Water Elevation	501.55				ft			06/21/19 09:48	1
Specific Conductance	1127				umhos/cm			06/21/19 09:48	1
Well bottom elevation	444.80				ft			06/21/19 09:48	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T08S

Date Collected: 06/21/19 12:47
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-8

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.029		0.010		mg/L		06/22/19 08:08	06/24/19 12:18	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.019		0.0010		mg/L		06/22/19 08:08	06/24/19 14:46	1
Barium	0.042		0.0025		mg/L		06/22/19 08:08	06/24/19 14:46	1
Boron	8.8		1.0		mg/L		06/22/19 08:08	06/25/19 11:46	20
Calcium	34		0.20		mg/L		06/22/19 08:08	06/24/19 14:46	1
Cobalt	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 14:46	1
Lead	<0.00050		0.00050		mg/L		06/22/19 08:08	06/24/19 14:46	1
Molybdenum	0.82		0.0050		mg/L		06/22/19 08:08	06/24/19 14:46	1
Selenium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 14:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		10		mg/L			06/24/19 02:22	1
Chloride	110		10		mg/L			06/25/19 19:19	5
Fluoride	0.77		0.10		mg/L			06/22/19 15:09	1
Sulfate	380		150		mg/L			06/28/19 15:07	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	122.19				ft			06/21/19 12:47	1
Depth to Water (ft from MP)	124.57				ft			06/21/19 12:47	1
Elevation of well (ft from MP)	627.39				ft			06/21/19 12:47	1
Field pH	8.15				SU			06/21/19 12:47	1
Field Temperature	72.5				Degrees F			06/21/19 12:47	1
Ground Water Elevation	502.82				ft			06/21/19 12:47	1
Specific Conductance	1180				umhos/cm			06/21/19 12:47	1
Well bottom elevation	447.38				ft			06/21/19 12:47	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G31S

Date Collected: 06/24/19 10:00
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.12		0.010		mg/L		06/25/19 15:30	06/26/19 11:08	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0056		0.0010		mg/L		06/25/19 15:30	06/26/19 17:15	1
Barium	0.059		0.0025		mg/L		06/25/19 15:30	06/26/19 17:15	1
Boron	5.9		1.0		mg/L		06/25/19 15:30	06/27/19 11:42	20
Calcium	160		0.20		mg/L		06/25/19 15:30	06/26/19 17:15	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:15	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:15	1
Molybdenum	0.89		0.0050		mg/L		06/25/19 15:30	06/26/19 17:15	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			06/26/19 07:59	1
Chloride	190		10		mg/L			06/25/19 19:21	5
Fluoride	0.27		0.10		mg/L			07/05/19 21:56	1
Sulfate	370		150		mg/L			06/28/19 15:07	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	23.29				ft			06/24/19 10:00	1
Depth to Water (ft from MP)	25.87				ft			06/24/19 10:00	1
Elevation of well (ft from MP)	535.78				ft			06/24/19 10:00	1
Field pH	7.16				SU			06/24/19 10:00	1
Field Temperature	59.7				Degrees F			06/24/19 10:00	1
Ground Water Elevation	509.91				ft			06/24/19 10:00	1
Specific Conductance	1424				umhos/cm			06/24/19 10:00	1
Well bottom elevation	453.36				ft			06/24/19 10:00	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: DUP

Date Collected: 06/24/19 10:00
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.12		0.010		mg/L		06/25/19 15:30	06/26/19 11:28	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0057		0.0010		mg/L		06/25/19 15:30	06/26/19 17:33	1
Barium	0.059		0.0025		mg/L		06/25/19 15:30	06/26/19 17:33	1
Boron	5.4		1.0		mg/L		06/25/19 15:30	06/27/19 12:09	20
Calcium	160		0.20		mg/L		06/25/19 15:30	06/26/19 17:33	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:33	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:33	1
Molybdenum	0.89		0.0050		mg/L		06/25/19 15:30	06/26/19 17:33	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			06/26/19 08:02	1
Chloride	180		10		mg/L			06/25/19 19:21	5
Fluoride	0.24		0.10		mg/L			07/05/19 21:58	1
Sulfate	370		150		mg/L			06/28/19 15:07	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	23.29				ft			06/24/19 10:00	1
Depth to Water (ft from MP)	25.87				ft			06/24/19 10:00	1
Elevation of well (ft from MP)	535.78				ft			06/24/19 10:00	1
Field pH	7.16				SU			06/24/19 10:00	1
Field Temperature	59.7				Degrees F			06/24/19 10:00	1
Ground Water Elevation	509.91				ft			06/24/19 10:00	1
Specific Conductance	1424				umhos/cm			06/24/19 10:00	1
Well bottom elevation	453.36				ft			06/24/19 10:00	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G33S

Date Collected: 06/24/19 12:37
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-11

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.043		0.010		mg/L		06/25/19 15:30	06/26/19 11:32	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011		0.0010		mg/L		06/25/19 15:30	06/26/19 17:37	1
Barium	0.070		0.0025		mg/L		06/25/19 15:30	06/26/19 17:37	1
Boron	1.4		0.25		mg/L		06/25/19 15:30	06/27/19 12:12	5
Calcium	45		0.20		mg/L		06/25/19 15:30	06/26/19 17:37	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:37	1
Lead	0.0011		0.00050		mg/L		06/25/19 15:30	06/26/19 17:37	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/19 15:30	06/26/19 17:37	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	420		10		mg/L			06/26/19 08:04	1
Chloride	4.8		2.0		mg/L			06/25/19 18:46	1
Fluoride	1.1		0.10		mg/L			07/05/19 22:07	1
Sulfate	61		25		mg/L			06/28/19 15:12	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	24.09				ft			06/24/19 12:37	1
Depth to Water (ft from MP)	25.82				ft			06/24/19 12:37	1
Elevation of well (ft from MP)	535.66				ft			06/24/19 12:37	1
Field pH	7.37				SU			06/24/19 12:37	1
Field Temperature	60.6				Degrees F			06/24/19 12:37	1
Ground Water Elevation	509.84				ft			06/24/19 12:37	1
Specific Conductance	615				umhos/cm			06/24/19 12:37	1
Well bottom elevation	452.72				ft			06/24/19 12:37	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T03S

Date Collected: 06/24/19 13:58
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-12

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.027		0.010		mg/L		06/25/19 15:30	06/26/19 11:44	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0020		0.0010		mg/L		06/25/19 15:30	06/26/19 17:41	1
Barium	0.090		0.0025		mg/L		06/25/19 15:30	06/26/19 17:41	1
Boron	2.7		0.50		mg/L		06/25/19 15:30	06/27/19 12:16	10
Calcium	100		0.20		mg/L		06/25/19 15:30	06/26/19 17:41	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:41	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:41	1
Molybdenum	0.37		0.0050		mg/L		06/25/19 15:30	06/26/19 17:41	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	830		10		mg/L			06/26/19 08:07	1
Chloride	89		10		mg/L			06/25/19 19:22	5
Fluoride	0.27		0.10		mg/L			07/05/19 22:10	1
Sulfate	260		100		mg/L			06/28/19 15:12	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	122.71				ft			06/24/19 13:58	1
Depth to Water (ft from MP)	125.79				ft			06/24/19 13:58	1
Elevation of well (ft from MP)	629.89				ft			06/24/19 13:58	1
Field pH	7.17				SU			06/24/19 13:58	1
Field Temperature	57.9				Degrees F			06/24/19 13:58	1
Ground Water Elevation	504.10				ft			06/24/19 13:58	1
Specific Conductance	1073				umhos/cm			06/24/19 13:58	1
Well bottom elevation	456.70				ft			06/24/19 13:58	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T02S

Date Collected: 06/25/19 09:34
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-13

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.034		0.010		mg/L		06/26/19 15:03	06/27/19 16:39	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0060		0.0010		mg/L		06/26/19 15:03	06/27/19 14:40	1
Barium	0.091	V	0.0025		mg/L		06/26/19 15:03	06/27/19 14:40	1
Boron	3.5		0.50		mg/L		06/26/19 15:03	06/28/19 13:49	10
Calcium	57	V	0.20		mg/L		06/26/19 15:03	06/27/19 14:40	1
Cobalt	0.0021		0.0010		mg/L		06/26/19 15:03	06/27/19 14:40	1
Lead	0.0024		0.00050		mg/L		06/26/19 15:03	06/27/19 14:40	1
Molybdenum	0.25	V	0.0050		mg/L		06/26/19 15:03	06/27/19 14:40	1
Selenium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	750		10		mg/L			06/26/19 08:09	1
Chloride	110		10		mg/L			07/02/19 16:45	5
Fluoride	0.40		0.10		mg/L			07/05/19 22:12	1
Sulfate	230		100		mg/L			06/28/19 15:12	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	126.27				ft			06/25/19 09:34	1
Depth to Water (ft from MP)	128.60				ft			06/25/19 09:34	1
Elevation of well (ft from MP)	626.16				ft			06/25/19 09:34	1
Field pH	7.40				SU			06/25/19 09:34	1
Field Temperature	75.2				Degrees F			06/25/19 09:34	1
Ground Water Elevation	497.56				ft			06/25/19 09:34	1
Specific Conductance	1147				umhos/cm			06/25/19 09:34	1
Well bottom elevation	453.40				ft			06/25/19 09:34	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G48S

Date Collected: 06/25/19 13:36
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-14

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.022		0.010		mg/L		06/26/19 15:03	06/27/19 17:09	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		06/26/19 15:03	06/27/19 15:06	1
Barium	0.018		0.0025		mg/L		06/26/19 15:03	06/27/19 15:06	1
Boron	7.1		1.0		mg/L		06/26/19 15:03	06/28/19 14:15	20
Calcium	28		0.20		mg/L		06/26/19 15:03	06/27/19 15:06	1
Cobalt	<0.0010		0.0010		mg/L		06/26/19 15:03	06/27/19 15:06	1
Lead	<0.00050		0.00050		mg/L		06/26/19 15:03	06/27/19 15:06	1
Molybdenum	0.73		0.0050		mg/L		06/26/19 15:03	06/27/19 15:06	1
Selenium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			06/26/19 08:12	1
Chloride	110		10		mg/L			07/02/19 16:50	5
Fluoride	0.95		0.10		mg/L			07/05/19 22:25	1
Sulfate	390		150		mg/L			06/28/19 15:12	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	95.73				ft			06/25/19 13:36	1
Depth to Water (ft from MP)	98.18				ft			06/25/19 13:36	1
Elevation of well (ft from MP)	620.78				ft			06/25/19 13:36	1
Field pH	8.07				SU			06/25/19 13:36	1
Field Temperature	62.8				Degrees F			06/25/19 13:36	1
Ground Water Elevation	522.60				ft			06/25/19 13:36	1
Specific Conductance	1391				umhos/cm			06/25/19 13:36	1
Well bottom elevation	468.32				ft			06/25/19 13:36	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T01S

Date Collected: 06/26/19 09:27
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-15

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.011		0.010		mg/L		06/27/19 07:17	06/27/19 17:21	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		06/27/19 07:17	06/27/19 16:29	1
Barium	0.069		0.0025		mg/L		06/27/19 07:17	06/27/19 16:29	1
Boron	4.3		0.50		mg/L		06/27/19 07:17	06/28/19 14:34	10
Calcium	58		0.20		mg/L		06/27/19 07:17	06/27/19 16:29	1
Cobalt	0.0030		0.0010		mg/L		06/27/19 07:17	06/27/19 16:29	1
Lead	0.0037		0.00050		mg/L		06/27/19 07:17	06/27/19 16:29	1
Molybdenum	0.30		0.0050		mg/L		06/27/19 07:17	06/27/19 16:29	1
Selenium	<0.0025		0.0025		mg/L		06/27/19 07:17	06/27/19 16:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	930		10		mg/L			06/27/19 09:55	1
Chloride	110		10		mg/L			07/02/19 16:52	5
Fluoride	1.1		0.10		mg/L			07/05/19 22:27	1
Sulfate	450		150		mg/L			06/28/19 15:16	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	111.20				ft			06/26/19 09:27	1
Depth to Water (ft from MP)	113.68				ft			06/26/19 09:27	1
Elevation of well (ft from MP)	621.78				ft			06/26/19 09:27	1
Field pH	7.43				SU			06/26/19 09:27	1
Field Temperature	73.4				Degrees F			06/26/19 09:27	1
Ground Water Elevation	508.10				ft			06/26/19 09:27	1
Specific Conductance	1222				umhos/cm			06/26/19 09:27	1
Well bottom elevation	451.46				ft			06/26/19 09:27	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G30S

Date Collected: 06/26/19 13:18
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-16

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.018		0.010		mg/L		06/27/19 07:17	06/27/19 17:25	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0074		0.0010		mg/L		06/27/19 07:17	06/27/19 16:33	1
Barium	0.041		0.0025		mg/L		06/27/19 07:17	06/27/19 16:33	1
Boron	5.4		1.0		mg/L		06/27/19 07:17	06/28/19 14:37	20
Calcium	57		0.20		mg/L		06/27/19 07:17	06/27/19 16:33	1
Cobalt	<0.0010		0.0010		mg/L		06/27/19 07:17	06/27/19 16:33	1
Lead	<0.00050		0.00050		mg/L		06/27/19 07:17	06/27/19 16:33	1
Molybdenum	0.065		0.0050		mg/L		06/27/19 07:17	06/27/19 16:33	1
Selenium	<0.0025	F1	0.0025		mg/L		06/27/19 07:17	06/27/19 16:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			06/27/19 09:57	1
Chloride	220		10		mg/L			07/09/19 13:22	5
Fluoride	1.1		0.10		mg/L			07/05/19 22:30	1
Sulfate	350		150		mg/L			06/28/19 15:16	30

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-0.74				ft			06/26/19 13:18	1
Depth to Water (ft from MP)	1.57				ft			06/26/19 13:18	1
Elevation of well (ft from MP)	524.70				ft			06/26/19 13:18	1
Field pH	7.98				SU			06/26/19 13:18	1
Field Temperature	60.4				Degrees F			06/26/19 13:18	1
Ground Water Elevation	523.13				ft			06/26/19 13:18	1
Specific Conductance	1500				umhos/cm			06/26/19 13:18	1
Well bottom elevation	462.58				ft			06/26/19 13:18	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: R32S

Date Collected: 06/27/19 11:59
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-17

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.090**		0.010		mg/L		06/28/19 07:48	06/28/19 16:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0027**		0.0010		mg/L		06/28/19 07:48	06/28/19 18:14	1
Barium	**0.041**		0.0025		mg/L		06/28/19 07:48	06/28/19 18:14	1
Boron	**6.3**		1.0		mg/L		06/28/19 07:48	07/01/19 11:03	20
Calcium	**140**		0.20		mg/L		06/28/19 07:48	06/28/19 18:14	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 07:48	06/28/19 18:14	1
Lead	<0.00050		0.00050		mg/L		06/28/19 07:48	06/28/19 18:14	1
Molybdenum	**0.81**		0.0050		mg/L		06/28/19 07:48	06/28/19 18:14	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 18:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**880**		10		mg/L			06/28/19 10:28	1
Chloride	**74**		2.0		mg/L			07/09/19 12:20	1
Fluoride	**0.27**		0.10		mg/L			07/05/19 22:32	1
Sulfate	**380**		100		mg/L			06/28/19 16:29	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**17.25**				ft			06/27/19 11:59	1
Depth to Water (ft from MP)	**19.28**				ft			06/27/19 11:59	1
Elevation of well (ft from MP)	**536.99**				ft			06/27/19 11:59	1
Field pH	**7.33**				SU			06/27/19 11:59	1
Field Temperature	**54.9**				Degrees F			06/27/19 11:59	1
Ground Water Elevation	**517.71**				ft			06/27/19 11:59	1
Specific Conductance	**991**				umhos/cm			06/27/19 11:59	1
Well bottom elevation	**457.84**				ft			06/27/19 11:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T04S

Date Collected: 06/27/19 13:15
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-18

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.038		0.010		mg/L		06/28/19 07:48	06/28/19 17:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0010		mg/L		06/28/19 07:48	06/28/19 18:17	1
Barium	0.087		0.0025		mg/L		06/28/19 07:48	06/28/19 18:17	1
Boron	0.24		0.050		mg/L		06/28/19 07:48	07/01/19 11:09	1
Calcium	100		0.20		mg/L		06/28/19 07:48	06/28/19 18:17	1
Cobalt	0.0033		0.0010		mg/L		06/28/19 07:48	06/28/19 18:17	1
Lead	0.0038		0.00050		mg/L		06/28/19 07:48	06/28/19 18:17	1
Molybdenum	0.014		0.0050		mg/L		06/28/19 07:48	06/28/19 18:17	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 18:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	590		10		mg/L			06/28/19 10:30	1
Chloride	24		2.0		mg/L			07/09/19 12:21	1
Fluoride	0.27		0.10		mg/L			07/05/19 22:37	1
Sulfate	140		50		mg/L			06/28/19 15:19	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	150.89				ft			06/27/19 13:15	1
Depth to Water (ft from MP)	153.31				ft			06/27/19 13:15	1
Elevation of well (ft from MP)	631.35				ft			06/27/19 13:15	1
Field pH	7.05				SU			06/27/19 13:15	1
Field Temperature	76.3				Degrees F			06/27/19 13:15	1
Ground Water Elevation	478.04				ft			06/27/19 13:15	1
Specific Conductance	721				umhos/cm			06/27/19 13:15	1
Well bottom elevation	458.07				ft			06/27/19 13:15	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G47S

Date Collected: 06/28/19 09:10
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-19

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.028		0.010		mg/L		06/28/19 15:43	07/01/19 12:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.13		0.0010		mg/L		06/28/19 15:43	07/03/19 15:06	1
Barium	0.012		0.0025		mg/L		06/28/19 15:43	07/03/19 15:06	1
Boron	13		5.0		mg/L		06/28/19 15:43	07/11/19 18:47	100
Calcium	2.9		0.20		mg/L		06/28/19 15:43	07/03/19 15:06	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 15:43	07/03/19 15:06	1
Lead	<0.00050		0.00050		mg/L		06/28/19 15:43	07/03/19 15:06	1
Molybdenum	1.0		0.0050		mg/L		06/28/19 15:43	07/03/19 15:06	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 15:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1400		10		mg/L			06/30/19 23:28	1
Chloride	130		10		mg/L			07/09/19 13:23	5
Fluoride	1.3		0.10		mg/L			07/05/19 22:40	1
Sulfate	450		100		mg/L			07/11/19 13:30	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	89.28				ft			06/28/19 09:10	1
Depth to Water (ft from MP)	91.78				ft			06/28/19 09:10	1
Elevation of well (ft from MP)	612.10				ft			06/28/19 09:10	1
Field pH	9.95				SU			06/28/19 09:10	1
Field Temperature	60.3				Degrees F			06/28/19 09:10	1
Ground Water Elevation	520.32				ft			06/28/19 09:10	1
Specific Conductance	1800				umhos/cm			06/28/19 09:10	1
Well bottom elevation	459.84				ft			06/28/19 09:10	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G45S

Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-20

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.032		0.010		mg/L		06/28/19 15:43	07/01/19 12:20	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.010		0.0010		mg/L		06/28/19 15:43	07/03/19 15:10	1
Barium	0.039		0.0025		mg/L		06/28/19 15:43	07/03/19 15:10	1
Boron	0.39		0.050		mg/L		06/28/19 15:43	07/11/19 18:51	1
Calcium	96		0.20		mg/L		06/28/19 15:43	07/03/19 15:10	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 15:43	07/03/19 15:10	1
Lead	<0.00050		0.00050		mg/L		06/28/19 15:43	07/03/19 15:10	1
Molybdenum	0.0087		0.0050		mg/L		06/28/19 15:43	07/03/19 15:10	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 15:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	720		10		mg/L			06/30/19 23:33	1
Chloride	130		10		mg/L			07/09/19 13:25	5
Fluoride	0.33		0.10		mg/L			07/05/19 22:44	1
Sulfate	120		100		mg/L			07/11/19 13:30	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	59.75				ft			06/28/19 10:31	1
Depth to Water (ft from MP)	62.72				ft			06/28/19 10:31	1
Elevation of well (ft from MP)	603.31				ft			06/28/19 10:31	1
Field pH	7.51				SU			06/28/19 10:31	1
Field Temperature	59.9				Degrees F			06/28/19 10:31	1
Ground Water Elevation	540.59				ft			06/28/19 10:31	1
Specific Conductance	914				umhos/cm			06/28/19 10:31	1
Well bottom elevation	471.05				ft			06/28/19 10:31	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
V	Serial Dilution exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 490923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total Recoverable	Water	3005A	
MB 500-490923/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-490923/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total Recoverable	Water	6010C	490923
MB 500-490923/1-A	Method Blank	Total Recoverable	Water	6010C	490923
LCS 500-490923/2-A	Lab Control Sample	Total Recoverable	Water	6010C	490923

Prep Batch: 491100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	3005A	
500-165270-3	G46S	Total Recoverable	Water	3005A	
500-165270-4	R08S	Total Recoverable	Water	3005A	
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total Recoverable	Water	6020A	490923
MB 500-490923/1-A	Method Blank	Total Recoverable	Water	6020A	490923
LCS 500-490923/2-A	Lab Control Sample	Total Recoverable	Water	6020A	490923

Analysis Batch: 491285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	6010C	491100
500-165270-3	G46S	Total Recoverable	Water	6010C	491100
500-165270-4	R08S	Total Recoverable	Water	6010C	491100
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	6010C	491100
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491100

Prep Batch: 491302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total Recoverable	Water	3005A	
500-165270-6	T05S	Total Recoverable	Water	3005A	
MB 500-491302/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491302/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	6020A	491100
500-165270-3	G46S	Total Recoverable	Water	6020A	491100
500-165270-4	R08S	Total Recoverable	Water	6020A	491100
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	6020A	491100
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491100

Analysis Batch: 491449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-2	G44S	Total Recoverable	Water	6020A	491100
500-165270-3	G46S	Total Recoverable	Water	6020A	491100

Metals (Continued)

Analysis Batch: 491449 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-4	R08S	Total Recoverable	Water	6020A	491100
MB 500-491100/1-A	Method Blank	Total Recoverable	Water	6020A	491100
LCS 500-491100/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491100

Prep Batch: 491497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-7	T09S	Total Recoverable	Water	3005A	
500-165270-8	T08S	Total Recoverable	Water	3005A	
MB 500-491497/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491497/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 491598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total Recoverable	Water	6010C	491302
500-165270-6	T05S	Total Recoverable	Water	6010C	491302
MB 500-491302/1-A	Method Blank	Total Recoverable	Water	6010C	491302
LCS 500-491302/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491302

Analysis Batch: 491700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-7	T09S	Total Recoverable	Water	6010C	491497
500-165270-8	T08S	Total Recoverable	Water	6010C	491497
MB 500-491497/1-A	Method Blank	Total Recoverable	Water	6010C	491497
LCS 500-491497/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491497

Analysis Batch: 491886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total Recoverable	Water	6020A	491302
500-165270-6	T05S	Total Recoverable	Water	6020A	491302
500-165270-7	T09S	Total Recoverable	Water	6020A	491497
500-165270-8	T08S	Total Recoverable	Water	6020A	491497
MB 500-491302/1-A	Method Blank	Total Recoverable	Water	6020A	491302
MB 500-491497/1-A	Method Blank	Total Recoverable	Water	6020A	491497
LCS 500-491302/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491302
LCS 500-491497/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491497

Prep Batch: 491981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	3005A	
500-165270-10	DUP	Total Recoverable	Water	3005A	
500-165270-11	G33S	Total Recoverable	Water	3005A	
500-165270-12	T03S	Total Recoverable	Water	3005A	
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-165270-9 MS	G31S	Total Recoverable	Water	3005A	
500-165270-9 MSD	G31S	Total Recoverable	Water	3005A	
500-165270-9 DU	G31S	Total Recoverable	Water	3005A	

Analysis Batch: 492086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-6	T05S	Total Recoverable	Water	6020A	491302

Metals (Continued)

Analysis Batch: 492086 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-8	T08S	Total Recoverable	Water	6020A	491497

Analysis Batch: 492159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	6010C	491981
500-165270-10	DUP	Total Recoverable	Water	6010C	491981
500-165270-11	G33S	Total Recoverable	Water	6010C	491981
500-165270-12	T03S	Total Recoverable	Water	6010C	491981
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	6010C	491981
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	6010C	491981
500-165270-9 MS	G31S	Total Recoverable	Water	6010C	491981
500-165270-9 MSD	G31S	Total Recoverable	Water	6010C	491981
500-165270-9 DU	G31S	Total Recoverable	Water	6010C	491981

Prep Batch: 492189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total Recoverable	Water	3005A	
500-165270-14	G48S	Total Recoverable	Water	3005A	
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-165270-13 MS	T02S	Total Recoverable	Water	3005A	
500-165270-13 MSD	T02S	Total Recoverable	Water	3005A	
500-165270-13 DU	T02S	Total Recoverable	Water	3005A	

Prep Batch: 492252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-15	T01S	Total Recoverable	Water	3005A	
500-165270-16	G30S	Total Recoverable	Water	3005A	
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-165270-16 MS	G30S	Total Recoverable	Water	3005A	
500-165270-16 MSD	G30S	Total Recoverable	Water	3005A	
500-165270-16 DU	G30S	Total Recoverable	Water	3005A	

Analysis Batch: 492312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	6020A	491981
500-165270-10	DUP	Total Recoverable	Water	6020A	491981
500-165270-11	G33S	Total Recoverable	Water	6020A	491981
500-165270-12	T03S	Total Recoverable	Water	6020A	491981
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	6020A	491981
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491981
500-165270-9 MS	G31S	Total Recoverable	Water	6020A	491981
500-165270-9 MSD	G31S	Total Recoverable	Water	6020A	491981
500-165270-9 DU	G31S	Total Recoverable	Water	6020A	491981

Analysis Batch: 492479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total Recoverable	Water	6010C	492189
500-165270-14	G48S	Total Recoverable	Water	6010C	492189
500-165270-15	T01S	Total Recoverable	Water	6010C	492252

Metals (Continued)

Analysis Batch: 492479 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-16	G30S	Total Recoverable	Water	6010C	492252
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	6010C	492189
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	6010C	492252
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492189
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492252
500-165270-13 MS	T02S	Total Recoverable	Water	6010C	492189
500-165270-13 MSD	T02S	Total Recoverable	Water	6010C	492189
500-165270-16 MS	G30S	Total Recoverable	Water	6010C	492252
500-165270-16 MSD	G30S	Total Recoverable	Water	6010C	492252
500-165270-13 DU	T02S	Total Recoverable	Water	6010C	492189
500-165270-16 DU	G30S	Total Recoverable	Water	6010C	492252

Prep Batch: 492495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total Recoverable	Water	3005A	
500-165270-18	T04S	Total Recoverable	Water	3005A	
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 492594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total Recoverable	Water	6020A	491981
500-165270-10	DUP	Total Recoverable	Water	6020A	491981
500-165270-11	G33S	Total Recoverable	Water	6020A	491981
500-165270-12	T03S	Total Recoverable	Water	6020A	491981
500-165270-13	T02S	Total Recoverable	Water	6020A	492189
500-165270-14	G48S	Total Recoverable	Water	6020A	492189
500-165270-15	T01S	Total Recoverable	Water	6020A	492252
500-165270-16	G30S	Total Recoverable	Water	6020A	492252
MB 500-491981/1-A	Method Blank	Total Recoverable	Water	6020A	491981
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	6020A	492189
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	6020A	492252
LCS 500-491981/2-A	Lab Control Sample	Total Recoverable	Water	6020A	491981
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492189
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492252
500-165270-9 MS	G31S	Total Recoverable	Water	6020A	491981
500-165270-9 MSD	G31S	Total Recoverable	Water	6020A	491981
500-165270-13 MS	T02S	Total Recoverable	Water	6020A	492189
500-165270-13 MSD	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 MS	G30S	Total Recoverable	Water	6020A	492252
500-165270-16 MSD	G30S	Total Recoverable	Water	6020A	492252
500-165270-9 DU	G31S	Total Recoverable	Water	6020A	491981
500-165270-13 DU	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 DU	G30S	Total Recoverable	Water	6020A	492252

Prep Batch: 492638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	3005A	
500-165270-20	G45S	Total Recoverable	Water	3005A	
MB 500-492638/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-492638/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 492795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total Recoverable	Water	6010C	492495
500-165270-18	T04S	Total Recoverable	Water	6010C	492495
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	6010C	492495
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492495

Analysis Batch: 492835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total Recoverable	Water	6020A	492189
500-165270-14	G48S	Total Recoverable	Water	6020A	492189
500-165270-15	T01S	Total Recoverable	Water	6020A	492252
500-165270-16	G30S	Total Recoverable	Water	6020A	492252
500-165270-17	R32S	Total Recoverable	Water	6020A	492495
500-165270-18	T04S	Total Recoverable	Water	6020A	492495
MB 500-492189/1-A	Method Blank	Total Recoverable	Water	6020A	492189
MB 500-492252/1-A	Method Blank	Total Recoverable	Water	6020A	492252
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	6020A	492495
LCS 500-492189/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492189
LCS 500-492252/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492252
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492495
500-165270-13 MS	T02S	Total Recoverable	Water	6020A	492189
500-165270-13 MSD	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 MS	G30S	Total Recoverable	Water	6020A	492252
500-165270-16 MSD	G30S	Total Recoverable	Water	6020A	492252
500-165270-13 DU	T02S	Total Recoverable	Water	6020A	492189
500-165270-16 DU	G30S	Total Recoverable	Water	6020A	492252

Analysis Batch: 492905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	6010C	492638
500-165270-20	G45S	Total Recoverable	Water	6010C	492638
MB 500-492638/1-A	Method Blank	Total Recoverable	Water	6010C	492638
LCS 500-492638/2-A	Lab Control Sample	Total Recoverable	Water	6010C	492638

Analysis Batch: 492965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total Recoverable	Water	6020A	492495
500-165270-18	T04S	Total Recoverable	Water	6020A	492495
MB 500-492495/1-A	Method Blank	Total Recoverable	Water	6020A	492495
LCS 500-492495/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492495

Analysis Batch: 493500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	6020A	492638
500-165270-20	G45S	Total Recoverable	Water	6020A	492638
MB 500-492638/1-A	Method Blank	Total Recoverable	Water	6020A	492638
LCS 500-492638/2-A	Lab Control Sample	Total Recoverable	Water	6020A	492638

Analysis Batch: 494590

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total Recoverable	Water	6020A	492638
500-165270-20	G45S	Total Recoverable	Water	6020A	492638

General Chemistry

Analysis Batch: 446113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 4500 SO4 E	
500-165270-2	G44S	Total/NA	Water	SM 4500 SO4 E	
500-165270-3	G46S	Total/NA	Water	SM 4500 SO4 E	
500-165270-4	R08S	Total/NA	Water	SM 4500 SO4 E	
MB 400-446113/18	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-446113/19	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-446113/15	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 446149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total/NA	Water	SM 4500 SO4 E	
500-165270-6	T05S	Total/NA	Water	SM 4500 SO4 E	
500-165270-7	T09S	Total/NA	Water	SM 4500 SO4 E	
500-165270-8	T08S	Total/NA	Water	SM 4500 SO4 E	
500-165270-9	G31S	Total/NA	Water	SM 4500 SO4 E	
500-165270-10	DUP	Total/NA	Water	SM 4500 SO4 E	
500-165270-11	G33S	Total/NA	Water	SM 4500 SO4 E	
500-165270-12	T03S	Total/NA	Water	SM 4500 SO4 E	
500-165270-13	T02S	Total/NA	Water	SM 4500 SO4 E	
500-165270-14	G48S	Total/NA	Water	SM 4500 SO4 E	
500-165270-15	T01S	Total/NA	Water	SM 4500 SO4 E	
500-165270-16	G30S	Total/NA	Water	SM 4500 SO4 E	
500-165270-17	R32S	Total/NA	Water	SM 4500 SO4 E	
500-165270-18	T04S	Total/NA	Water	SM 4500 SO4 E	
MB 400-446149/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-446149/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-446149/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-165270-5 MS	T06S	Total/NA	Water	SM 4500 SO4 E	
500-165270-5 MSD	T06S	Total/NA	Water	SM 4500 SO4 E	
500-165270-15 MS	T01S	Total/NA	Water	SM 4500 SO4 E	
500-165270-15 MSD	T01S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 447593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total/NA	Water	SM 4500 SO4 E	
500-165270-20	G45S	Total/NA	Water	SM 4500 SO4 E	
MB 400-447593/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-447593/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-447593/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 491082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 2540C	
500-165270-2	G44S	Total/NA	Water	SM 2540C	
500-165270-3	G46S	Total/NA	Water	SM 2540C	
500-165270-4	R08S	Total/NA	Water	SM 2540C	
MB 500-491082/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-491082/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 491283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total/NA	Water	SM 2540C	
500-165270-6	T05S	Total/NA	Water	SM 2540C	
MB 500-491283/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-491283/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-165270-5 DU	T06S	Total/NA	Water	SM 2540C	

Analysis Batch: 491581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-7	T09S	Total/NA	Water	SM 2540C	
500-165270-8	T08S	Total/NA	Water	SM 2540C	
MB 500-491581/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-491581/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 491896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 4500 F C	
500-165270-2	G44S	Total/NA	Water	SM 4500 F C	
500-165270-3	G46S	Total/NA	Water	SM 4500 F C	
500-165270-4	R08S	Total/NA	Water	SM 4500 F C	
500-165270-5	T06S	Total/NA	Water	SM 4500 F C	
500-165270-6	T05S	Total/NA	Water	SM 4500 F C	
500-165270-7	T09S	Total/NA	Water	SM 4500 F C	
500-165270-8	T08S	Total/NA	Water	SM 4500 F C	
MB 500-491896/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-491896/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 492003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	SM 4500 Cl- E	
500-165270-2	G44S	Total/NA	Water	SM 4500 Cl- E	
500-165270-3	G46S	Total/NA	Water	SM 4500 Cl- E	
500-165270-5	T06S	Total/NA	Water	SM 4500 Cl- E	
MB 500-492003/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-492003/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-5 MS	T06S	Total/NA	Water	SM 4500 Cl- E	
500-165270-5 MSD	T06S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 492063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total/NA	Water	SM 2540C	
500-165270-10	DUP	Total/NA	Water	SM 2540C	
500-165270-11	G33S	Total/NA	Water	SM 2540C	
500-165270-12	T03S	Total/NA	Water	SM 2540C	
500-165270-13	T02S	Total/NA	Water	SM 2540C	
500-165270-14	G48S	Total/NA	Water	SM 2540C	
MB 500-492063/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492063/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 492303

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-4	R08S	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 492303 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-6	T05S	Total/NA	Water	SM 4500 Cl- E	
500-165270-7	T09S	Total/NA	Water	SM 4500 Cl- E	
500-165270-8	T08S	Total/NA	Water	SM 4500 Cl- E	
500-165270-9	G31S	Total/NA	Water	SM 4500 Cl- E	
500-165270-10	DUP	Total/NA	Water	SM 4500 Cl- E	
500-165270-11	G33S	Total/NA	Water	SM 4500 Cl- E	
500-165270-12	T03S	Total/NA	Water	SM 4500 Cl- E	
MB 500-492303/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-492303/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-8 MS	T08S	Total/NA	Water	SM 4500 Cl- E	
500-165270-8 MSD	T08S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 492315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-15	T01S	Total/NA	Water	SM 2540C	
500-165270-16	G30S	Total/NA	Water	SM 2540C	
MB 500-492315/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492315/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 492545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-17	R32S	Total/NA	Water	SM 2540C	
500-165270-18	T04S	Total/NA	Water	SM 2540C	
MB 500-492545/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492545/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 492785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-19	G47S	Total/NA	Water	SM 2540C	
500-165270-20	G45S	Total/NA	Water	SM 2540C	
MB 500-492785/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-492785/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-165270-19 DU	G47S	Total/NA	Water	SM 2540C	

Analysis Batch: 493145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-13	T02S	Total/NA	Water	SM 4500 Cl- E	
500-165270-14	G48S	Total/NA	Water	SM 4500 Cl- E	
500-165270-15	T01S	Total/NA	Water	SM 4500 Cl- E	
MB 500-493145/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-493145/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-13 MS	T02S	Total/NA	Water	SM 4500 Cl- E	
500-165270-13 MSD	T02S	Total/NA	Water	SM 4500 Cl- E	
500-165270-14 MS	G48S	Total/NA	Water	SM 4500 Cl- E	
500-165270-14 MSD	G48S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 493622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-9	G31S	Total/NA	Water	SM 4500 F C	
500-165270-10	DUP	Total/NA	Water	SM 4500 F C	
500-165270-11	G33S	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 493622 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-12	T03S	Total/NA	Water	SM 4500 F C	
500-165270-13	T02S	Total/NA	Water	SM 4500 F C	
500-165270-14	G48S	Total/NA	Water	SM 4500 F C	
500-165270-15	T01S	Total/NA	Water	SM 4500 F C	
500-165270-16	G30S	Total/NA	Water	SM 4500 F C	
500-165270-17	R32S	Total/NA	Water	SM 4500 F C	
500-165270-18	T04S	Total/NA	Water	SM 4500 F C	
500-165270-19	G47S	Total/NA	Water	SM 4500 F C	
500-165270-20	G45S	Total/NA	Water	SM 4500 F C	
MB 500-493622/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-493622/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-165270-10 MS	DUP	Total/NA	Water	SM 4500 F C	
500-165270-10 MSD	DUP	Total/NA	Water	SM 4500 F C	

Analysis Batch: 493994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-16	G30S	Total/NA	Water	SM 4500 Cl- E	
500-165270-17	R32S	Total/NA	Water	SM 4500 Cl- E	
500-165270-18	T04S	Total/NA	Water	SM 4500 Cl- E	
500-165270-19	G47S	Total/NA	Water	SM 4500 Cl- E	
500-165270-20	G45S	Total/NA	Water	SM 4500 Cl- E	
MB 500-493994/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-493994/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-165270-16 MS	G30S	Total/NA	Water	SM 4500 Cl- E	
500-165270-16 MSD	G30S	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 494883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	Field Sampling	
500-165270-2	G44S	Total/NA	Water	Field Sampling	
500-165270-3	G46S	Total/NA	Water	Field Sampling	
500-165270-4	R08S	Total/NA	Water	Field Sampling	
500-165270-5	T06S	Total/NA	Water	Field Sampling	
500-165270-6	T05S	Total/NA	Water	Field Sampling	
500-165270-7	T09S	Total/NA	Water	Field Sampling	
500-165270-8	T08S	Total/NA	Water	Field Sampling	
500-165270-9	G31S	Total/NA	Water	Field Sampling	
500-165270-10	DUP	Total/NA	Water	Field Sampling	
500-165270-11	G33S	Total/NA	Water	Field Sampling	
500-165270-12	T03S	Total/NA	Water	Field Sampling	
500-165270-13	T02S	Total/NA	Water	Field Sampling	
500-165270-14	G48S	Total/NA	Water	Field Sampling	
500-165270-15	T01S	Total/NA	Water	Field Sampling	
500-165270-16	G30S	Total/NA	Water	Field Sampling	
500-165270-17	R32S	Total/NA	Water	Field Sampling	
500-165270-18	T04S	Total/NA	Water	Field Sampling	
500-165270-19	G47S	Total/NA	Water	Field Sampling	
500-165270-20	G45S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-490923/1-A
Matrix: Water
Analysis Batch: 491090

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/19/19 07:40	06/19/19 15:55	1

Lab Sample ID: LCS 500-490923/2-A
Matrix: Water
Analysis Batch: 491090

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.513		mg/L		103	80 - 120

Lab Sample ID: MB 500-491100/1-A
Matrix: Water
Analysis Batch: 491285

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/20/19 07:47	06/20/19 12:56	1

Lab Sample ID: LCS 500-491100/2-A
Matrix: Water
Analysis Batch: 491285

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.564		mg/L		113	80 - 120

Lab Sample ID: MB 500-491302/1-A
Matrix: Water
Analysis Batch: 491598

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/21/19 07:59	06/21/19 18:47	1

Lab Sample ID: LCS 500-491302/2-A
Matrix: Water
Analysis Batch: 491598

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.523		mg/L		105	80 - 120

Lab Sample ID: MB 500-491497/1-A
Matrix: Water
Analysis Batch: 491700

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/22/19 08:08	06/24/19 12:06	1

Lab Sample ID: LCS 500-491497/2-A
Matrix: Water
Analysis Batch: 491700

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.558		mg/L		112	80 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-491981/1-A
Matrix: Water
Analysis Batch: 492159

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/19 15:30	06/26/19 11:00	1

Lab Sample ID: LCS 500-491981/2-A
Matrix: Water
Analysis Batch: 492159

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.549		mg/L		110	80 - 120

Lab Sample ID: 500-165270-9 MS
Matrix: Water
Analysis Batch: 492159

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.12		0.500	0.690		mg/L		113	75 - 125

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492159

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.12		0.500	0.677		mg/L		111	75 - 125	2	20

Lab Sample ID: 500-165270-9 DU
Matrix: Water
Analysis Batch: 492159

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.12		0.124		mg/L		0.9	20

Lab Sample ID: MB 500-492189/1-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/26/19 15:03	06/27/19 16:31	1

Lab Sample ID: LCS 500-492189/2-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.509		mg/L		102	80 - 120

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 492479

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.034		0.500	0.553		mg/L		104	75 - 125

Method: 6010C - Metals (ICP)

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492479

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.034		0.500	0.542		mg/L		102	75 - 125	2	20

Lab Sample ID: 500-165270-13 DU
Matrix: Water
Analysis Batch: 492479

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.034		0.0347		mg/L		2	20

Lab Sample ID: MB 500-492252/1-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/27/19 07:17	06/27/19 17:13	1

Lab Sample ID: LCS 500-492252/2-A
Matrix: Water
Analysis Batch: 492479

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.503		mg/L		101	80 - 120

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 492479

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.018		0.500	0.545		mg/L		105	75 - 125

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492479

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.018		0.500	0.557		mg/L		108	75 - 125	2	20

Lab Sample ID: 500-165270-16 DU
Matrix: Water
Analysis Batch: 492479

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.018		0.0190		mg/L		6	20

Lab Sample ID: MB 500-492495/1-A
Matrix: Water
Analysis Batch: 492795

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/28/19 07:48	06/28/19 16:50	1

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 500-492495/2-A
Matrix: Water
Analysis Batch: 492795

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.442		mg/L		88	80 - 120

Lab Sample ID: MB 500-492638/1-A
Matrix: Water
Analysis Batch: 492905

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/28/19 15:43	07/01/19 12:08	1

Lab Sample ID: LCS 500-492638/2-A
Matrix: Water
Analysis Batch: 492905

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.554		mg/L		111	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-490923/1-A
Matrix: Water
Analysis Batch: 491173

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/19/19 07:40	06/19/19 16:41	1
Barium	<0.0025		0.0025		mg/L		06/19/19 07:40	06/19/19 16:41	1
Boron	<0.050		0.050		mg/L		06/19/19 07:40	06/19/19 16:41	1
Calcium	<0.20		0.20		mg/L		06/19/19 07:40	06/19/19 16:41	1
Cobalt	<0.0010		0.0010		mg/L		06/19/19 07:40	06/19/19 16:41	1
Lead	<0.00050		0.00050		mg/L		06/19/19 07:40	06/19/19 16:41	1
Molybdenum	<0.0050		0.0050		mg/L		06/19/19 07:40	06/19/19 16:41	1
Selenium	<0.0025		0.0025		mg/L		06/19/19 07:40	06/19/19 16:41	1

Lab Sample ID: LCS 500-490923/2-A
Matrix: Water
Analysis Batch: 491173

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 490923

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.105		mg/L		105	80 - 120
Barium	2.00	2.16		mg/L		108	80 - 120
Boron	1.00	1.03		mg/L		103	80 - 120
Calcium	10.0	9.60		mg/L		96	80 - 120
Cobalt	0.500	0.527		mg/L		105	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-491100/1-A
Matrix: Water
Analysis Batch: 491367

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 15:43	1
Barium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 15:43	1
Calcium	<0.20		0.20		mg/L		06/20/19 07:47	06/20/19 15:43	1
Cobalt	<0.0010		0.0010		mg/L		06/20/19 07:47	06/20/19 15:43	1
Lead	<0.00050		0.00050		mg/L		06/20/19 07:47	06/20/19 15:43	1
Molybdenum	<0.0050		0.0050		mg/L		06/20/19 07:47	06/20/19 15:43	1
Selenium	<0.0025		0.0025		mg/L		06/20/19 07:47	06/20/19 15:43	1

Lab Sample ID: MB 500-491100/1-A
Matrix: Water
Analysis Batch: 491449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/20/19 07:47	06/21/19 11:11	1

Lab Sample ID: LCS 500-491100/2-A
Matrix: Water
Analysis Batch: 491367

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.105		mg/L		105	80 - 120
Barium	2.00	2.10		mg/L		105	80 - 120
Calcium	10.0	9.49		mg/L		95	80 - 120
Cobalt	0.500	0.527		mg/L		105	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Molybdenum	1.00	1.02		mg/L		102	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LCS 500-491100/2-A
Matrix: Water
Analysis Batch: 491449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: MB 500-491302/1-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:50	1
Barium	<0.0025		0.0025		mg/L		06/21/19 07:59	06/24/19 14:50	1
Boron	0.0643		0.050		mg/L		06/21/19 07:59	06/24/19 14:50	1
Calcium	<0.20		0.20		mg/L		06/21/19 07:59	06/24/19 14:50	1
Cobalt	<0.0010		0.0010		mg/L		06/21/19 07:59	06/24/19 14:50	1
Lead	<0.00050		0.00050		mg/L		06/21/19 07:59	06/24/19 14:50	1
Molybdenum	<0.0050		0.0050		mg/L		06/21/19 07:59	06/24/19 14:50	1
Selenium	<0.0025		0.0025		mg/L		06/21/19 07:59	06/24/19 14:50	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-491302/2-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491302

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.106		mg/L		106	80 - 120
Barium	2.00	2.08		mg/L		104	80 - 120
Boron	1.00	1.00		mg/L		100	80 - 120
Calcium	10.0	9.25		mg/L		92	80 - 120
Cobalt	0.500	0.517		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	1.01		mg/L		101	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: MB 500-491497/1-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 12:24	1
Barium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 12:24	1
Boron	<0.050		0.050		mg/L		06/22/19 08:08	06/24/19 12:24	1
Calcium	<0.20		0.20		mg/L		06/22/19 08:08	06/24/19 12:24	1
Cobalt	<0.0010		0.0010		mg/L		06/22/19 08:08	06/24/19 12:24	1
Lead	<0.00050		0.00050		mg/L		06/22/19 08:08	06/24/19 12:24	1
Molybdenum	<0.0050		0.0050		mg/L		06/22/19 08:08	06/24/19 12:24	1
Selenium	<0.0025		0.0025		mg/L		06/22/19 08:08	06/24/19 12:24	1

Lab Sample ID: LCS 500-491497/2-A
Matrix: Water
Analysis Batch: 491886

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0997		mg/L		100	80 - 120
Barium	2.00	2.00		mg/L		100	80 - 120
Boron	1.00	0.984		mg/L		98	80 - 120
Calcium	10.0	8.91		mg/L		89	80 - 120
Cobalt	0.500	0.515		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.980		mg/L		98	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120

Lab Sample ID: MB 500-491981/1-A
Matrix: Water
Analysis Batch: 492312

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:00	1
Barium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:00	1
Calcium	<0.20		0.20		mg/L		06/25/19 15:30	06/26/19 17:00	1
Cobalt	<0.0010		0.0010		mg/L		06/25/19 15:30	06/26/19 17:00	1
Lead	<0.00050		0.00050		mg/L		06/25/19 15:30	06/26/19 17:00	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/19 15:30	06/26/19 17:00	1
Selenium	<0.0025		0.0025		mg/L		06/25/19 15:30	06/26/19 17:00	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-491981/1-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/25/19 15:30	06/27/19 11:35	1

Lab Sample ID: LCS 500-491981/2-A
Matrix: Water
Analysis Batch: 492312

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.107		mg/L		107	80 - 120
Barium	2.00	2.27		mg/L		114	80 - 120
Calcium	10.0	9.49		mg/L		95	80 - 120
Cobalt	0.500	0.544		mg/L		109	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	1.07		mg/L		107	80 - 120
Selenium	0.100	0.108		mg/L		108	80 - 120

Lab Sample ID: LCS 500-491981/2-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: 500-165270-9 MS
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0056		0.100	0.116		mg/L		110	75 - 125
Barium	0.059		2.00	2.31		mg/L		112	75 - 125
Calcium	160		10.0	161	4	mg/L		55	75 - 125
Cobalt	<0.0010		0.500	0.507		mg/L		101	75 - 125
Lead	<0.00050		0.100	0.104		mg/L		104	75 - 125
Molybdenum	0.89		1.00	1.95		mg/L		107	75 - 125
Selenium	<0.0025		0.100	0.113		mg/L		113	75 - 125

Lab Sample ID: 500-165270-9 MS
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.9		1.00	6.89	4	mg/L		101	75 - 125

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0056		0.100	0.113		mg/L		108	75 - 125	2	20
Barium	0.059		2.00	2.25		mg/L		110	75 - 125	2	20
Calcium	160		10.0	159	4	mg/L		33	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	<0.0010		0.500	0.499		mg/L		100	75 - 125	2	20
Lead	<0.00050		0.100	0.101		mg/L		101	75 - 125	3	20
Molybdenum	0.89		1.00	1.91		mg/L		102	75 - 125	2	20
Selenium	<0.0025		0.100	0.111		mg/L		111	75 - 125	2	20

Lab Sample ID: 500-165270-9 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.9		1.00	7.14	4	mg/L		125	75 - 125	4	20

Lab Sample ID: 500-165270-9 DU
Matrix: Water
Analysis Batch: 492312

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0056		0.00564		mg/L		0	20
Barium	0.059		0.0589		mg/L		0.9	20
Calcium	160		156		mg/L		0	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.89		0.888		mg/L		0	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-165270-9 DU
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G31S
Prep Type: Total Recoverable
Prep Batch: 491981

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.9		6.22		mg/L		6	20

Lab Sample ID: MB 500-492189/1-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/26/19 15:03	06/27/19 14:33	1
Barium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 14:33	1
Calcium	<0.20		0.20		mg/L		06/26/19 15:03	06/27/19 14:33	1
Cobalt	<0.0010		0.0010		mg/L		06/26/19 15:03	06/27/19 14:33	1
Lead	<0.00050		0.00050		mg/L		06/26/19 15:03	06/27/19 14:33	1
Molybdenum	<0.0050		0.0050		mg/L		06/26/19 15:03	06/27/19 14:33	1
Selenium	<0.0025		0.0025		mg/L		06/26/19 15:03	06/27/19 14:33	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-492189/1-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/26/19 15:03	06/28/19 13:41	1

Lab Sample ID: LCS 500-492189/2-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.100		mg/L		100	80 - 120
Barium	2.00	2.06		mg/L		103	80 - 120
Calcium	10.0	9.37		mg/L		94	80 - 120
Cobalt	0.500	0.554		mg/L		111	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120
Molybdenum	1.00	1.03		mg/L		103	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LCS 500-492189/2-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0060		0.100	0.111		mg/L		105	75 - 125
Barium	0.091	V	2.00	2.10		mg/L		101	75 - 125
Calcium	57	V	10.0	65.3	4	mg/L		81	75 - 125
Cobalt	0.0021		0.500	0.513		mg/L		102	75 - 125
Lead	0.0024		0.100	0.107		mg/L		105	75 - 125
Molybdenum	0.25	V	1.00	1.33		mg/L		108	75 - 125
Selenium	<0.0025		0.100	0.107		mg/L		107	75 - 125

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 492835

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	3.5		1.00	4.53		mg/L		104	75 - 125

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0060		0.100	0.112		mg/L		106	75 - 125	1	20
Barium	0.091	V	2.00	2.09		mg/L		100	75 - 125	0	20
Calcium	57	V	10.0	66.5	4	mg/L		93	75 - 125	2	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	0.0021		0.500	0.523		mg/L		104	75 - 125	2	20
Lead	0.0024		0.100	0.107		mg/L		105	75 - 125	0	20
Molybdenum	0.25	V	1.00	1.35		mg/L		109	75 - 125	1	20
Selenium	<0.0025		0.100	0.108		mg/L		108	75 - 125	1	20

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 492835

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	3.5		1.00	4.43		mg/L		94	75 - 125	2	20

Lab Sample ID: 500-165270-13 DU
Matrix: Water
Analysis Batch: 492594

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0060		0.00604		mg/L		1	20
Barium	0.091	V	0.0933		mg/L		3	20
Calcium	57	V	58.3		mg/L		2	20
Cobalt	0.0021		0.00210		mg/L		2	20
Lead	0.0024		0.00240		mg/L		1	20
Molybdenum	0.25	V	0.260		mg/L		2	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-165270-13 DU
Matrix: Water
Analysis Batch: 492835

Client Sample ID: T02S
Prep Type: Total Recoverable
Prep Batch: 492189

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	3.5		3.38		mg/L		3	20

Lab Sample ID: MB 500-492252/1-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/27/19 07:17	06/27/19 16:18	1
Barium	<0.0025		0.0025		mg/L		06/27/19 07:17	06/27/19 16:18	1
Calcium	<0.20		0.20		mg/L		06/27/19 07:17	06/27/19 16:18	1
Cobalt	<0.0010		0.0010		mg/L		06/27/19 07:17	06/27/19 16:18	1
Lead	<0.00050		0.00050		mg/L		06/27/19 07:17	06/27/19 16:18	1
Molybdenum	<0.0050		0.0050		mg/L		06/27/19 07:17	06/27/19 16:18	1
Selenium	<0.0025		0.0025		mg/L		06/27/19 07:17	06/27/19 16:18	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-492252/1-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/27/19 07:17	06/28/19 14:26	1

Lab Sample ID: LCS 500-492252/2-A
Matrix: Water
Analysis Batch: 492594

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.102		mg/L		102	80 - 120
Barium	2.00	2.12		mg/L		106	80 - 120
Calcium	10.0	9.45		mg/L		94	80 - 120
Cobalt	0.500	0.566		mg/L		113	80 - 120
Lead	0.100	0.113		mg/L		113	80 - 120
Molybdenum	1.00	1.05		mg/L		105	80 - 120
Selenium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: LCS 500-492252/2-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.09		mg/L		109	80 - 120

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0074		0.100	0.115		mg/L		108	75 - 125
Barium	0.041		2.00	2.11		mg/L		104	75 - 125
Calcium	57		10.0	66.4	4	mg/L		96	75 - 125
Cobalt	<0.0010		0.500	0.541		mg/L		108	75 - 125
Lead	<0.00050		0.100	0.106		mg/L		106	75 - 125
Molybdenum	0.065		1.00	1.16		mg/L		110	75 - 125
Selenium	<0.0025	F1	0.100	0.0823		mg/L		82	75 - 125

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 492835

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.4		1.00	6.52	4	mg/L		108	75 - 125

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0074		0.100	0.113		mg/L		106	75 - 125	1	20
Barium	0.041		2.00	2.14		mg/L		105	75 - 125	1	20
Calcium	57		10.0	67.3	4	mg/L		105	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cobalt	<0.0010		0.500	0.541		mg/L		108	75 - 125	0	20
Lead	<0.00050		0.100	0.107		mg/L		107	75 - 125	0	20
Molybdenum	0.065		1.00	1.14		mg/L		108	75 - 125	2	20
Selenium	<0.0025	F1	0.100	0.0727	F1	mg/L		73	75 - 125	12	20

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 492835

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.4		1.00	6.79	4	mg/L		135	75 - 125	4	20

Lab Sample ID: 500-165270-16 DU
Matrix: Water
Analysis Batch: 492594

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0074		0.00719		mg/L		2	20
Barium	0.041		0.0405		mg/L		0.6	20
Calcium	57		56.0		mg/L		1	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.065		0.0634		mg/L		2	20
Selenium	<0.0025	F1	<0.0025		mg/L		NC	20

Lab Sample ID: 500-165270-16 DU
Matrix: Water
Analysis Batch: 492835

Client Sample ID: G30S
Prep Type: Total Recoverable
Prep Batch: 492252

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.4		5.47		mg/L		0.5	20

Lab Sample ID: MB 500-492495/1-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/28/19 07:48	06/28/19 17:25	1
Barium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 17:25	1
Calcium	<0.20		0.20		mg/L		06/28/19 07:48	06/28/19 17:25	1
Cobalt	<0.0010		0.0010		mg/L		06/28/19 07:48	06/28/19 17:25	1
Lead	<0.00050		0.00050		mg/L		06/28/19 07:48	06/28/19 17:25	1
Molybdenum	<0.0050		0.0050		mg/L		06/28/19 07:48	06/28/19 17:25	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 07:48	06/28/19 17:25	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-492495/1-A
Matrix: Water
Analysis Batch: 492965

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/28/19 07:48	07/01/19 10:55	1

Lab Sample ID: LCS 500-492495/2-A
Matrix: Water
Analysis Batch: 492835

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	2.00	2.10		mg/L		105	80 - 120
Calcium	10.0	9.26		mg/L		93	80 - 120
Cobalt	0.500	0.514		mg/L		103	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	0.984		mg/L		98	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120

Lab Sample ID: LCS 500-492495/2-A
Matrix: Water
Analysis Batch: 492965

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492495

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.03		mg/L		103	80 - 120

Lab Sample ID: MB 500-492638/1-A
Matrix: Water
Analysis Batch: 493500

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/28/19 15:43	07/03/19 14:06	1
Barium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 14:06	1
Boron	<0.050		0.050		mg/L		06/28/19 15:43	07/03/19 14:06	1
Calcium	<0.20		0.20		mg/L		06/28/19 15:43	07/03/19 14:06	1
Cobalt	<0.0010	^	0.0010		mg/L		06/28/19 15:43	07/03/19 14:06	1
Lead	<0.00050		0.00050		mg/L		06/28/19 15:43	07/03/19 14:06	1
Molybdenum	<0.0050		0.0050		mg/L		06/28/19 15:43	07/03/19 14:06	1
Selenium	<0.0025		0.0025		mg/L		06/28/19 15:43	07/03/19 14:06	1

Lab Sample ID: LCS 500-492638/2-A
Matrix: Water
Analysis Batch: 493500

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 492638

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0994		mg/L		99	80 - 120
Barium	2.00	2.12		mg/L		106	80 - 120
Boron	1.00	0.973		mg/L		97	80 - 120
Calcium	10.0	9.45		mg/L		94	80 - 120
Cobalt	0.500	0.534	^	mg/L		107	80 - 120
Lead	0.100	0.108		mg/L		108	80 - 120
Molybdenum	1.00	0.989		mg/L		99	80 - 120
Selenium	0.100	0.0981		mg/L		98	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-491082/1
Matrix: Water
Analysis Batch: 491082

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/19/19 22:57	1

Lab Sample ID: LCS 500-491082/2
Matrix: Water
Analysis Batch: 491082

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	270		mg/L		108	80 - 120

Lab Sample ID: MB 500-491283/1
Matrix: Water
Analysis Batch: 491283

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/21/19 05:47	1

Lab Sample ID: LCS 500-491283/2
Matrix: Water
Analysis Batch: 491283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	264		mg/L		106	80 - 120

Lab Sample ID: 500-165270-5 DU
Matrix: Water
Analysis Batch: 491283

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	460		476		mg/L		3	5

Lab Sample ID: MB 500-491581/1
Matrix: Water
Analysis Batch: 491581

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/24/19 01:57	1

Lab Sample ID: LCS 500-491581/2
Matrix: Water
Analysis Batch: 491581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	252		mg/L		101	80 - 120

Lab Sample ID: MB 500-492063/1
Matrix: Water
Analysis Batch: 492063

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/26/19 07:31	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 500-492063/2
Matrix: Water
Analysis Batch: 492063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	286		mg/L		114	80 - 120

Lab Sample ID: MB 500-492315/1
Matrix: Water
Analysis Batch: 492315

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/27/19 09:37	1

Lab Sample ID: LCS 500-492315/2
Matrix: Water
Analysis Batch: 492315

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	270		mg/L		108	80 - 120

Lab Sample ID: MB 500-492545/1
Matrix: Water
Analysis Batch: 492545

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/28/19 09:47	1

Lab Sample ID: LCS 500-492545/2
Matrix: Water
Analysis Batch: 492545

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	258		mg/L		103	80 - 120

Lab Sample ID: MB 500-492785/1
Matrix: Water
Analysis Batch: 492785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			06/30/19 23:23	1

Lab Sample ID: LCS 500-492785/2
Matrix: Water
Analysis Batch: 492785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	258		mg/L		103	80 - 120

Lab Sample ID: 500-165270-19 DU
Matrix: Water
Analysis Batch: 492785

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1400		1380		mg/L		0.1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-492003/4
Matrix: Water
Analysis Batch: 492003

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/25/19 15:55	1

Lab Sample ID: LCS 500-492003/5
Matrix: Water
Analysis Batch: 492003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.8		mg/L		104	85 - 115

Lab Sample ID: 500-165270-5 MS
Matrix: Water
Analysis Batch: 492003

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	9.2		50.0	56.0		mg/L		94	75 - 125

Lab Sample ID: 500-165270-5 MSD
Matrix: Water
Analysis Batch: 492003

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	9.2		50.0	55.7		mg/L		93	75 - 125	1	20

Lab Sample ID: MB 500-492303/4
Matrix: Water
Analysis Batch: 492303

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/25/19 18:32	1

Lab Sample ID: LCS 500-492303/5
Matrix: Water
Analysis Batch: 492303

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.9		mg/L		104	85 - 115

Lab Sample ID: 500-165270-8 MS
Matrix: Water
Analysis Batch: 492303

Client Sample ID: T08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	161		mg/L		95	75 - 125

Lab Sample ID: 500-165270-8 MSD
Matrix: Water
Analysis Batch: 492303

Client Sample ID: T08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	163		mg/L		99	75 - 125	1	20

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-493145/12
Matrix: Water
Analysis Batch: 493145

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/02/19 15:59	1

Lab Sample ID: LCS 500-493145/13
Matrix: Water
Analysis Batch: 493145

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	51.1		mg/L		102	85 - 115

Lab Sample ID: 500-165270-13 MS
Matrix: Water
Analysis Batch: 493145

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	151		mg/L		89	75 - 125

Lab Sample ID: 500-165270-13 MSD
Matrix: Water
Analysis Batch: 493145

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	146		mg/L		80	75 - 125	3	20

Lab Sample ID: 500-165270-14 MS
Matrix: Water
Analysis Batch: 493145

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	110		50.0	159		mg/L		102	75 - 125

Lab Sample ID: 500-165270-14 MSD
Matrix: Water
Analysis Batch: 493145

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	156		mg/L		96	75 - 125	2	20

Lab Sample ID: MB 500-493994/12
Matrix: Water
Analysis Batch: 493994

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/09/19 12:05	1

Lab Sample ID: LCS 500-493994/13
Matrix: Water
Analysis Batch: 493994

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.8		mg/L		102	85 - 115

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 500-165270-16 MS
Matrix: Water
Analysis Batch: 493994

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	220		50.0	253	4	mg/L		69	75 - 125

Lab Sample ID: 500-165270-16 MSD
Matrix: Water
Analysis Batch: 493994

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	220		50.0	256	4	mg/L		74	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-491896/3
Matrix: Water
Analysis Batch: 491896

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			06/22/19 13:46	1

Lab Sample ID: LCS 500-491896/4
Matrix: Water
Analysis Batch: 491896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.6		mg/L		106	80 - 120

Lab Sample ID: MB 500-493622/3
Matrix: Water
Analysis Batch: 493622

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/05/19 21:46	1

Lab Sample ID: LCS 500-493622/4
Matrix: Water
Analysis Batch: 493622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.0		mg/L		100	80 - 120

Lab Sample ID: 500-165270-10 MS
Matrix: Water
Analysis Batch: 493622

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.24		5.00	5.18		mg/L		99	75 - 125

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: 500-165270-10 MSD
Matrix: Water
Analysis Batch: 493622

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.24		5.00	5.20		mg/L		99	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-446113/18
Matrix: Water
Analysis Batch: 446113

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/28/19 13:25	1

Lab Sample ID: LCS 400-446113/19
Matrix: Water
Analysis Batch: 446113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		94	90 - 110

Lab Sample ID: MRL 400-446113/15
Matrix: Water
Analysis Batch: 446113

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.08		mg/L		102	50 - 150

Lab Sample ID: MB 400-446149/6
Matrix: Water
Analysis Batch: 446149

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/28/19 14:19	1

Lab Sample ID: LCS 400-446149/7
Matrix: Water
Analysis Batch: 446149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		95	90 - 110

Lab Sample ID: MRL 400-446149/3
Matrix: Water
Analysis Batch: 446149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		99	50 - 150

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: 500-165270-5 MS
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	89		10.0	95.6	4	mg/L		71	77 - 128

Lab Sample ID: 500-165270-5 MSD
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	89		10.0	95.1	4	mg/L		65	77 - 128	1	5

Lab Sample ID: 500-165270-15 MS
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	450		9.90	350	4	mg/L		-965	77 - 128

Lab Sample ID: 500-165270-15 MSD
Matrix: Water
Analysis Batch: 446149

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	450		9.90	348	4	mg/L		-980	77 - 128	0	5

Lab Sample ID: MB 400-447593/6
Matrix: Water
Analysis Batch: 447593

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			07/11/19 12:40	1

Lab Sample ID: LCS 400-447593/7
Matrix: Water
Analysis Batch: 447593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.5		mg/L		96	90 - 110

Lab Sample ID: MRL 400-447593/3
Matrix: Water
Analysis Batch: 447593

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		89	50 - 150

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

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Report To
Contact:
Company:
Address:
Address:
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Contact:
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PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

48 hr.

Temperature °C of Cooler: 3.8

Client	Client Project #	Preservative	3	3	3	3	8				
Midwest Generation EME LLC											
Project Name: Joliet #9 CCR - 2Q19 GW		Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4				
Project Location/State: University Park, IL	Lab Project #										
Sampler: Noe L., Rob P.	Lab PM: Eric Lang										

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix									
1		G205	06/18/19	1045	5	W	1	1	1	1	1				

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/18/19	1455	Paula Dudley	TACH	6/18/19	1455
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

7/15/2019

TestAmerica

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Phone:
Fax:
PO#/Reference#

500-165270 COC

Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page ____ of ____

48 hr.

Temperature °C of Cooler: 2.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL.
Lab Project #:
Sampler: Noe G, Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	A					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
2		G445	06/19/19	1054	5	W		✓	✓	✓	✓	✓					
3		G465	06/19/19	1200	5	W		✓	✓	✓	✓	✓					
4		R085	06/19/19	1305	5	W		✓	✓	✓	✓	✓					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	06/19/19	1448		TA	6-19-19	1448
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

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Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page _____ of _____

48 gf Temperature °C of Cooler: 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Noe Ly Rob P.
Lab PM: Eric Lang

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
5		T06S	06/20/19	1040	5	GW		✓	✓	✓	✓	✓					
6		T05S	06/20/19	1332	5	GW		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/20/19	1550	Paula Buckley	TACHI	6/20/19	1550
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

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Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page _____ of _____

48 gt

Temperature °C of Cooler: 0.5 - 2.5

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Nick L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8				
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4				
1		T09S	06/21/19	0948	5	W		✓	✓	✓	✓	✓				
8		T08S	06/21/19	1247	5	W		✓	✓	✓	✓	✓				

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TA	06/21/19	1505	Pallen Buckley	TA CAL	6/21/19	1505
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
							6/21/19
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

7/15/2019

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 1.7-3.7

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Noe L.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
9		G31S	06/24/19	1000	5	G		✓	✓	✓	✓	✓					
10		DUP	06/24/19	1000	5	G		✓	✓	✓	✓	✓					DUP of G31S
11		G33S	06/24/19	1237	5	G		✓	✓	✓	✓	✓					
12		TO3S	06/24/19	1358	5	G		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/24/19	1525	[signature]	TA-CHI	6/25/19	0750
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-165270 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

48 hr, Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Ric L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8				
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4				
13		TO2S	06/25/19	0934	5	W		✓	✓	✓	✓	✓				
14		G48S	06/25/19	1336	5	W		✓	✓	✓	✓	✓				

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/25/19	1529	[signature]	TA-CHI	6/25/19	1529
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

48hr Temperature °C of Cooler: 0.1 +2.1

Client	Client Project #
Midwest Generation EME LLC	
Project Name: Joliet #9 CCR-2019 GW	
Project Location/State: University Park, IL	Lab Project #
Sampler: Nac L., Rob P.	Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Fe, Li, Mo, S	TDS, Fl, Cl, SO4					
15		T01S	06/26/19	0927	5	W		1	1	1	1	1					
16		G30S	06/26/19	1318	5	W		1	1	1	1	1					

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/26/19	1528	Dawn Buckley	TACHT	6/26/19	1528
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier X
Shipped
Hand Delivered

Matrix Key

WW – Wastewater	SE – Sediment
W – Water	SO – Soil
S – Soil	L – Leachate
SL – Sludge	WI – Wipe
MS – Miscellaneous	DW – Drinking Water
OL – Oil	O – Other
A – Air	

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-2019 GW
Project Location/State: University Park IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Parameter: Radium 226	Parameter: Radium 228	Parameter: Radium 226/228	Parameter: Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	Parameter: TDS, Fl, Cl, SO4	Comments
							3					8	
17		R32S	06/27/19	1159	5	W	✓	✓	✓	✓	✓	✓	
18		T04S	06/27/19	1315	5	W	✓	✓	✓	✓	✓	✓	

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[illegible]	TA	06/27/19	1533	Ellie Roth	TA-CHI	6/28/19	1533
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-500 (1209)

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

30 gal. Temperature °C of Cooler: 0.3 → 1.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Nose L., Rob
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
19		G47S	06/28/19	0910	5	W		1	1	1	1	1					
20		G45S	06/28/19	1031	5	W		1	1	1	1	1					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/28/19	1207	[signature]	TA-CHI	6/28/19	1207
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122460.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
G20S (500-165270-1)	6/18/19	10:45 Central		Water			X	1	
G44S (500-165270-2)	6/19/19	10:54 Central		Water			X	1	
G46S (500-165270-3)	6/19/19	12:00 Central		Water			X	1	
R08S (500-165270-4)	6/19/19	13:05 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 6/19/19 1600	Company: TA	Received by: Megan Hamilton	Date/Time: 6-20-19 1001	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.0°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122582.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T06S (500-165270-5)	6/20/19	10:40 Central		Water			X	1	
T05S (500-165270-6)	6/20/19	13:32 Central		Water			X	1	
T09S (500-165270-7)	6/21/19	09:48 Central		Water			X	1	
T08S (500-165270-8)	6/21/19	12:47 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	6-24-19 1000	TA	Megan Hardcastle	6-26-19 857	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.0°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122619.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
G31S (500-165270-9)	6/24/19	10:00 Central		Water			X	1	
DUP (500-165270-10)	6/24/19	10:00 Central		Water			X	1	
G33S (500-165270-11)	6/24/19	12:37 Central		Water			X	1	
T03S (500-165270-12)	6/24/19	13:58 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	6/25/19 1315	TA-CHI			
2	Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 6/26/19 857	Company TA
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122644.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T02S (500-165270-13)	6/25/19	09:34 Central		Water			X	1	
G48S (500-165270-14)	6/25/19	13:36 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* ____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6/25/19 1600	TA			
2						
3					6/26/19 857	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.4°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122680.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive,	Due Date Requested: 7/5/2019	Analysis Requested		Preservation Codes:
City: Pensacola	TAT Requested (days):			A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other:
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T01S (500-165270-15)	6/26/19	09:27 Central		Water			X	1	
G30S (500-165270-16)	6/26/19	13:18 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	6/26/19 1555	TA-CHI			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				6/27/19 9:21	TA

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0°C IR7

Ver: 01/16/2019

7/15/2019

fins TestAmericа, Chicago
Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122723.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 7/5/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - Di Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
R32S (500-165270-17)	6/27/19	11:59 Central		Water			X	1	
T04S (500-165270-18)	6/27/19	13:15 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/27/19 1550	TALCAL			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [signature]	Date/Time: 8/28/19 8:30	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.0°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122746.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 3355 McLemore Drive,	Due Date Requested: 7/16/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X		X	
G47S (500-165270-19)	6/28/19	09:10 Central		Water			X	1	
G45S (500-165270-20)	6/28/19	10:31 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/28/19 1500	TAL	[signature]	6-29-19 919	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.7°C IR8

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8, 2.3, 2.6, 2.5,3.7,3.3, 2.1,3.3,1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 4
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/20/19 02:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	760135
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 7
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/26/19 02:06 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	760320
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.4°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 8
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/26/19 03:31 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	760270
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 10
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/27/19 04:12 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	760362
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0°C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 12
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/28/19 02:05 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	760386
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.0°C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-1

Login Number: 165270
List Number: 14
Creator: Hinrichsen, Megan E

List Source: Eurofins TestAmerica, Pensacola
List Creation: 06/29/19 12:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	760408
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G20S

Lab Sample ID: 500-165270-1
Matrix: Water
Date Collected: 06/18/19 10:45
Date Received: 06/18/19 14:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			490923	06/19/19 07:40	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491090	06/19/19 16:03	EEN	TAL CHI
Total Recoverable	Prep	3005A			490923	06/19/19 07:40	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491173	06/19/19 18:03	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:35	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	446113	06/28/19 13:43	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/18/19 10:45	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-165270-2
Matrix: Water
Date Collected: 06/19/19 10:54
Date Received: 06/19/19 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491285	06/20/19 13:37	JEF	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491367	06/20/19 16:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		5	491449	06/21/19 11:18	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:38	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:28	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446113	06/28/19 13:46	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/19/19 10:54	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-165270-3
Matrix: Water
Date Collected: 06/19/19 12:00
Date Received: 06/19/19 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491285	06/20/19 13:41	JEF	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491367	06/20/19 16:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		100	491449	06/21/19 11:22	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:40	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:16	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:31	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446113	06/28/19 13:46	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/19/19 12:00	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: R08S

Lab Sample ID: 500-165270-4

Date Collected: 06/19/19 13:05

Matrix: Water

Date Received: 06/19/19 14:48

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491285	06/20/19 13:45	JEF	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491367	06/20/19 16:24	FXG	TAL CHI
Total Recoverable	Prep	3005A			491100	06/20/19 07:47	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	491449	06/21/19 11:26	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491082	06/19/19 23:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 18:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:37	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446113	06/28/19 13:46	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/19/19 13:05	JVB	TAL CHI

Client Sample ID: T06S

Lab Sample ID: 500-165270-5

Date Collected: 06/20/19 10:40

Matrix: Water

Date Received: 06/20/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491598	06/21/19 18:55	EEN	TAL CHI
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 14:58	DAJ	TAL CHI
Total/NA	Analysis	SM 2540C		1	491283	06/21/19 06:12	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492003	06/25/19 16:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 14:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	446149	06/28/19 15:03	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/20/19 10:40	JVB	TAL CHI

Client Sample ID: T05S

Lab Sample ID: 500-165270-6

Date Collected: 06/20/19 13:32

Matrix: Water

Date Received: 06/20/19 15:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	491598	06/21/19 18:59	EEN	TAL CHI
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 15:02	DAJ	TAL CHI
Total Recoverable	Prep	3005A			491302	06/21/19 07:59	SAH	TAL CHI
Total Recoverable	Analysis	6020A		100	492086	06/25/19 11:42	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491283	06/21/19 06:18	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:14	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 15:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:03	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/20/19 13:32	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T09S

Lab Sample ID: 500-165270-7

Date Collected: 06/21/19 09:48

Matrix: Water

Date Received: 06/21/19 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	491700	06/24/19 12:14	JEF	TAL CHI
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 14:42	DAJ	TAL CHI
Total/NA	Analysis	SM 2540C		1	491581	06/24/19 02:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 15:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/21/19 09:48	JVB	TAL CHI

Client Sample ID: T08S

Lab Sample ID: 500-165270-8

Date Collected: 06/21/19 12:47

Matrix: Water

Date Received: 06/21/19 15:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	491700	06/24/19 12:18	JEF	TAL CHI
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	491886	06/24/19 14:46	DAJ	TAL CHI
Total Recoverable	Prep	3005A			491497	06/22/19 08:08	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492086	06/25/19 11:46	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	491581	06/24/19 02:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:19	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	491896	06/22/19 15:09	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/21/19 12:47	JVB	TAL CHI

Client Sample ID: G31S

Lab Sample ID: 500-165270-9

Date Collected: 06/24/19 10:00

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:08	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:15	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492594	06/27/19 11:42	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 07:59	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 21:56	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 10:00	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: DUP

Lab Sample ID: 500-165270-10

Date Collected: 06/24/19 10:00

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:28	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:33	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492594	06/27/19 12:09	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:02	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 21:58	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 10:00	JVB	TAL CHI

Client Sample ID: G33S

Lab Sample ID: 500-165270-11

Date Collected: 06/24/19 12:37

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:32	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:37	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	492594	06/27/19 12:12	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:04	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	492303	06/25/19 18:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 12:37	JVB	TAL CHI

Client Sample ID: T03S

Lab Sample ID: 500-165270-12

Date Collected: 06/24/19 13:58

Matrix: Water

Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492159	06/26/19 11:44	JEF	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492312	06/26/19 17:41	FXG	TAL CHI
Total Recoverable	Prep	3005A			491981	06/25/19 15:30	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	492594	06/27/19 12:16	ASF	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:07	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	492303	06/25/19 19:22	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:10	EAT	TAL CHI

Client Sample ID: T03S
Lab Sample ID: 500-165270-12

Date Collected: 06/24/19 13:58
Matrix: Water
Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/24/19 13:58	JVB	TAL CHI

Client Sample ID: T02S
Lab Sample ID: 500-165270-13

Date Collected: 06/25/19 09:34
Matrix: Water
Date Received: 06/25/19 15:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 16:39	EEN	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 14:40	ASF	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	492835	06/28/19 13:49	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493145	07/02/19 16:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:12	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/25/19 09:34	JVB	TAL CHI

Client Sample ID: G48S
Lab Sample ID: 500-165270-14

Date Collected: 06/25/19 13:36
Matrix: Water
Date Received: 06/25/19 15:29

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 17:09	EEN	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 15:06	ASF	TAL CHI
Total Recoverable	Prep	3005A			492189	06/26/19 15:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	492835	06/28/19 14:15	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492063	06/26/19 08:12	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493145	07/02/19 16:50	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/25/19 13:36	JVB	TAL CHI

Client Sample ID: T01S
Lab Sample ID: 500-165270-15

Date Collected: 06/26/19 09:27
Matrix: Water
Date Received: 06/26/19 15:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 17:21	EEN	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T01S

Lab Sample ID: 500-165270-15

Date Collected: 06/26/19 09:27

Matrix: Water

Date Received: 06/26/19 15:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 16:29	ASF	TAL CHI
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		10	492835	06/28/19 14:34	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492315	06/27/19 09:55	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493145	07/02/19 16:52	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:27	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:16	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/26/19 09:27	JVB	TAL CHI

Client Sample ID: G30S

Lab Sample ID: 500-165270-16

Date Collected: 06/26/19 13:18

Matrix: Water

Date Received: 06/26/19 15:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492479	06/27/19 17:25	EEN	TAL CHI
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492594	06/27/19 16:33	ASF	TAL CHI
Total Recoverable	Prep	3005A			492252	06/27/19 07:17	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	492835	06/28/19 14:37	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492315	06/27/19 09:57	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493994	07/09/19 13:22	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		30	446149	06/28/19 15:16	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/26/19 13:18	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-165270-17

Date Collected: 06/27/19 11:59

Matrix: Water

Date Received: 06/27/19 15:33

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492795	06/28/19 16:59	JEF	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492835	06/28/19 18:14	FXG	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		20	492965	07/01/19 11:03	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492545	06/28/19 10:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	493994	07/09/19 12:20	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	446149	06/28/19 16:29	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/27/19 11:59	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: T04S

Lab Sample ID: 500-165270-18

Date Collected: 06/27/19 13:15
Date Received: 06/27/19 15:33

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	492795	06/28/19 17:11	JEF	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492835	06/28/19 18:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			492495	06/28/19 07:48	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	492965	07/01/19 11:09	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492545	06/28/19 10:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	493994	07/09/19 12:21	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:37	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	446149	06/28/19 15:19	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/27/19 13:15	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-165270-19

Date Collected: 06/28/19 09:10
Date Received: 06/28/19 12:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492905	07/01/19 12:16	JEF	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	493500	07/03/19 15:06	FXG	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	494590	07/11/19 18:47	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492785	06/30/19 23:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493994	07/09/19 13:23	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:40	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	447593	07/11/19 13:30	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/28/19 09:10	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-165270-20

Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	492905	07/01/19 12:20	JEF	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	493500	07/03/19 15:10	FXG	TAL CHI
Total Recoverable	Prep	3005A			492638	06/28/19 15:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	494590	07/11/19 18:51	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	492785	06/30/19 23:33	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	493994	07/09/19 13:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	493622	07/05/19 22:44	EAT	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-1

Client Sample ID: G45S

Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	447593	07/11/19 13:30	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	494883	06/28/19 10:31	JVB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/18/19 Start Purge: 1025 (2400 Hr. Clock) End Purge: 1045

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.26

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 39.03 (ft.)
Ground Water Elev. 541.30 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.20	7.18	7.18	(std.)
SC	596	599	599	(umhos/cm)
Temp.	21.45	21.48	21.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 65°F, Cloudy, E winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 39.03 - 2.78 = ~~32.6~~ 36.25 07/15/19 MB
Levels were taken on 06/18/19 @ 1015.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/19/19 Start Purge: 1035 (2400 Hr. Clock) End Purge: 1054

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 80.05 (ft.)
Ground Water Elev. 506.64 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.01	7.02	7.02	(std.)
SC	968	969	969	(umhos/cm)
Temp.	16.08	15.99	15.99	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 79°F, Sunny, NE winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 80.05 - 2.18 = 77.87 (ft.)
Levels were taken on 06/19/19 @ 1025.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/19/19 Start Purge: 1140 (2400 Hr. Clock) End Purge: 1200

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.70 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.32 (ft./msl)
Water Level 101.40 (ft.)
Ground Water Elev. 499.92 (ft./msl)
Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.65	7.64	7.64	(std.)
SC	1,205	1,216	1,216	(umhos/cm)
Temp.	14.11	14.14	14.14	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 79 °F, Partly Cloudy, NE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 101.40 - 2.70 = 98.70 (RL)
Levels were taken on 06/19/19 @ 1135.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-4

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/19/19 Start Purge: 1250 (2400 Hr. Clock) End Purge: 1305

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.62 (ft./msl)
Water Level 67.24 (ft.)
Ground Water Elev. 511.38 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.10	8.10	8.10	(std.)
SC	954	958	958	(umhos/cm)
Temp.	14.03	14.08	14.08	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 77°F, Mostly Cloudy, E winds 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 67.24 - 2.55 = 64.69 (ft.)
Levels were taken on 06/19/19 @ 1245.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T06S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y)(N)
Sampling Bladder Pump Dedicated (Y)(N)

PURGING INFORMATION

Purge Date: 06/20/19 Start Purge: 1020 (2400 Hr. Clock) End Purge: 1040

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.30 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 621.02 (ft./msl)
Water Level 112.05 (ft.)
Ground Water Elev. 508.97 (ft./msl)
Well Bottom Elevation * 447.94 (ft./msl)

	1st	2nd	Final	
pH	7.04	7.05	7.05	(std.)
SC	692	695	695	(umhos/cm)
Temp.	19.96	19.98	19.98	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 63°F, Cloudy, N winds e 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 112.05 - 2.30 = 109.75 (ft)
Levels were taken on 06/20/19 @ 1005.
* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T05S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-16

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/20/19 Start Purge: 1310 (2400 Hr. Clock) End Purge: 1332

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.71

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 623.45 (ft./msl)

Water Level 116.82 (ft.)

Ground Water Elev. 506.63 (ft./msl)

Well Bottom Elevation * 448.35 (ft./msl)

	1st	2nd	Final	
pH	10.12	10.13	10.13	(std.)
SC	2,110	2,110	2,110	(umhos/cm)
Temp.	16.37	16.35	16.35	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 63°F, Cloudy, N winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 116.82 - 2.40 = 114.42 (ft.)

Levels were taken on 06/20/19 @ 1255.

* Total Deth = 175.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T09S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/21/19 Start Purge: 0930 (2400 Hr. Clock) End Purge: 0948

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.58

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.40 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 603.74 (ft./msl)
Water Level 102.19 (ft.)
Ground Water Elev. 501.55 (ft./msl)
Well Bottom Elevation * 444.80 (ft./msl)

	1st	2nd	Final	
pH	7.30	7.29	7.29	(std.)
SC	1124	1127	1127	(umhos/cm)
Temp.	20.28	20.30	20.30	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 72°F, Sunny, E winds 5-10 mph

Other: *Reference Measurement (updated 02/19/14)
Depth To Water from L.S. = 102.19 - 2.40 = 99.79 (ft.)
Levels were taken on 06/21/19 @ 0915.
* Total Depth: 158.59

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/21/19 Start Purge: 1225 (2400 Hr. Clock) End Purge: 1247

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.57

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.38 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 627.39 (ft./msl)
Water Level 124.57 (ft.)
Ground Water Elev. 502.82 (ft./msl)
Well Bottom Elevation * 447.38 (ft./msl)

	1st	2nd	Final	
pH	8.12	8.15	8.15	(std.)
SC	1,186	1,180	1,180	(umhos/cm)
Temp.	22.56	22.48	22.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 74°F, Sunny, E winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 124.57 - 2.38 = 122.19 (ft)
Levels were taken on 06/21/19 @ 1210.
* Total Deth = 180.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-9

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/19 Start Purge: 0940 (2400 Hr. Clock) End Purge: 1000

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.58 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.78 (ft./msl)

Water Level 25.87 (ft.)

Ground Water Elev. 509.91 (ft./msl)

Well Bottom Elevation *453.36 (ft./msl)

	1st	2nd	Final	
pH	7.15	7.16	7.16	(std.)
SC	1,422	1,424	1,424	(umhos/cm)
Temp.	15.32	15.39	15.39	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 71°F, Cloudy, SW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 25.87 - 2.58 = 23.29 (ft)

Levels were taken on 06/24/19 @ 0930.

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-116270-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 2.58 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *535.78 (ft./msl) Temp._____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *453.36 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. = _____

Levels were taken on @ .

(Updated: 06-24-2019)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-11

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/19 Start Purge: 1215 (2400 Hr. Clock) End Purge: 1237

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.57

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 1.73 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.66 (ft./msl)

Water Level 25.82 (ft.)

Ground Water Elev. 509.84 (ft./msl)

Well Bottom Elevation *452.72 (ft./msl)

	1st	2nd	Final	
pH	7.37	7.37	7.37	(std.)
SC	626	615	615	(umhos/cm)
Temp.	15.81	15.89	15.89	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Gray, Slight Turbidity, No Odor

Weather Conditions: 72°F, Rain, SW wind 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 25.82 - 1.73 = 24.09 (A.)

Levels were taken on 06/24/19 @ 1200.

Updated: (12-11-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-12

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/19 Start Purge: 1340 (2400 Hr. Clock) End Purge: 1358

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.89 (ft./msl)
Water Level 125.79 (ft.)
Ground Water Elev. 504.10 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.16	7.17	7.17	(std.)
SC	1072	1073	1073	(umhos/cm)
Temp.	14.38	14.38	14.38	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 72°F, Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 125.79 - 3.08 = 122.71 (ft.)
Levels were taken on 06/24/19 @ 1335.
* Total Depth = 172.95

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T02S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-13

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/25/19 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0934

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.33 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 626.16 (ft./msl)

Water Level 128.60 (ft.)

Ground Water Elev. 497.56 (ft./msl)

Well Bottom Elevation * 453.40 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.40	7.40	(std.)
SC	1141	1147	1147	(umhos/cm)
Temp.	24.02	24.04	24.04	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 76°F, Sunny, SW winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 128.60 - 2.33 = 126.27 (A)

Levels were taken on 06/25/19 @ 0855.

* Total Depth = 172.75

(Updated: 12-11-2018))

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-14

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/25/19 Start Purge: 1315 (2400 Hr. Clock) End Purge: 1336

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.81

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.78 (ft./msl)
Water Level 98.18 (ft.)
Ground Water Elev. 522.60 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	8.08	8.07	8.07	(std.)
SC	1396	1391	1391	(umhos/cm)
Temp.	17.29	17.11	17.11	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 84°F, Sunny, SW winds @ 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 98.18 - 2.45 = 95.73 (ft.)
Levels were taken on 06/25/19 @ 1305

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T01S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-15

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y)(N)

Sampling Bladder Pump Dedicated (Y)(N)

PURGING INFORMATION

Purge Date: 06/26/19 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0927

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.28

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.48 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 621.78 (ft./msl)

Water Level 113.68 (ft.)

Ground Water Elev. 508.10 (ft./msl)

Well Bottom Elevation * 451.46 (ft./msl)

	1st	2nd	Final	
pH	7.42	7.43	7.43	(std.)
SC	1227	1722	1,222	(umhos/cm)
Temp.	22.97	22.98	22.98	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, High Turbidity, Slight Odor

Weather Conditions: 78°F, Sunny, SW winds @ 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 113.68 - 2.48 = 111.20 (ft.)

Levels were taken on 06/26/19 @ 0845.

* Total Depth = 170.00

(Updated 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-16

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/26/19 Start Purge: 1300 (2400 Hr. Clock) End Purge: 1318

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.70 (ft./msl)
Water Level 1.57 (ft.)
Ground Water Elev. 523.13 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.99	7.98	7.98	(std.)
SC	1490	1,500	1500	(umhos/cm)
Temp.	15.83	15.82	15.82	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 86°F, Sunny, SW winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.57 - 2.31 = -0.74 (ft.)
Levels were taken on 06/26/19 @ 1255.

(Updated 10-102018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-17

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/27/19 Start Purge: 1140 (2400 Hr. Clock) End Purge: 1159

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.98

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.99 (ft./msl)
Water Level 19.28 (ft.)
Ground Water Elev. 517.71 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.32	7.33	7.33	(std.)
SC	993	991	991	(umhos/cm)
Temp.	12.69	12.72	12.72	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 87°F, Partly Cloudy, SW wind 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 19.28 - 2.03 = 17.25 (ft.)
Levels were taken on 06/27/19 @ 1130

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T04S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-18

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/27/19 Start Purge: 1255 (2400 Hr. Clock) End Purge: 1315

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.42 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 631.35 (ft./msl)
Water Level 153.31 (ft.)
Ground Water Elev. 478.04 (ft./msl)
Well Bottom Elevation * 458.07 (ft./msl)

	1st	2nd	Final	
pH	7.04	7.05	7.05	(std.)
SC	717	721	721	(umhos/cm)
Temp.	24.60	24.64	24.64	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 88°F, Partly Cloudy, S winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 153.31 - 2.42 = 150.89 (ft.)
Levels were taken on 06/27/19 @ 1245.
* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-165270-19

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/28/19 Start Purge: 0855 (2400 Hr. Clock) End Purge: 0910

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.50 (ft)

Ref. Measuring Pt. TIC

Well Elevation *612.10 (ft./msl)

Water Level 91.78 (ft.)

Ground Water Elev. 520.32 (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.95	9.95	9.95	(std.)
SC	1,790	1800	1800	(umhos/cm)
Temp.	15.82	15.74	15.74	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 81°F, Sunny, SW winds @ 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 91.78 - 2.50 = 89.28 (ft.)

Levels were taken on 06/28/19 @ 0850 .

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-105270-20

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/28/19 Start Purge: 1015 (2400 Hr. Clock) End Purge: 1034

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.31 (ft./msl)
Water Level 62.72 (ft.)
Ground Water Elev. 540.59 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.53	7.51	7.51	(std.)
SC	920	914	914	(umhos/cm)
Temp.	15.44	15.46	15.46	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 84°F, Fair, S winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 62.72 - 2.97 = 59.75 (ft.)
Levels were taken on 06/28/19 @ 1010

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-165270-2
Client Project/Site: Joliet #9 CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 2B
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
8/30/2019 12:42:28 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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Have a Question? Ask The Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-165270-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-165270-2

Comments
No additional comments.

Receipt
The samples were received on 6/18/2019 2:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 9 coolers at receipt time were 1.8º C, 2.1º C, 2.3º C, 2.5º C, 2.6º C, 3.3º C, 3.3º C, 3.7º C and 3.8º C.

RAD
Method(s) PrecSep_0: Radium 228 Prep Batch 160- 433143:
The following samples were prepared at a reduced aliquot due to yellow discoloration and heavy sediment levels: T02S (500-165270-13).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-433597:
The following samples were prepared at a reduced aliquot due to yellow discoloration: T04S (500-165270-18).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-440295:
Due to re- analysis, insufficient sample volume was available to perform a sample duplicate for the following sample: T09S (500-165270-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160- 433127:
The following samples were prepared at a reduced aliquot due to yellow discoloration and heavy sediment levels: T02S (500-165270-13).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-433589:
The following samples were prepared at a reduced aliquot due to yellow discoloration: T04S (500-165270-18).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-440293:
Due to re- analysis, insufficient sample volume was available to perform a sample duplicate for the following sample: T09S (500-165270-7). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-165270-1	G20S	Water	06/18/19 10:45	06/18/19 14:55	
500-165270-2	G44S	Water	06/19/19 10:54	06/19/19 14:48	
500-165270-3	G46S	Water	06/19/19 12:00	06/19/19 14:48	
500-165270-4	R08S	Water	06/19/19 13:05	06/19/19 14:48	
500-165270-5	T06S	Water	06/20/19 10:40	06/20/19 15:50	
500-165270-6	T05S	Water	06/20/19 13:32	06/20/19 15:50	
500-165270-7	T09S	Water	06/21/19 09:48	06/21/19 15:05	
500-165270-8	T08S	Water	06/21/19 12:47	06/21/19 15:05	
500-165270-9	G31S	Water	06/24/19 10:00	06/24/19 15:25	
500-165270-10	DUP	Water	06/24/19 10:00	06/24/19 15:25	
500-165270-11	G33S	Water	06/24/19 12:37	06/24/19 15:25	
500-165270-12	T03S	Water	06/24/19 13:58	06/24/19 15:25	
500-165270-13	T02S	Water	06/25/19 09:34	06/25/19 15:29	
500-165270-14	G48S	Water	06/25/19 13:36	06/25/19 15:29	
500-165270-15	T01S	Water	06/26/19 09:27	06/26/19 15:28	
500-165270-16	G30S	Water	06/26/19 13:18	06/26/19 15:28	
500-165270-17	R32S	Water	06/27/19 11:59	06/27/19 15:33	
500-165270-18	T04S	Water	06/27/19 13:15	06/27/19 15:33	
500-165270-19	G47S	Water	06/28/19 09:10	06/28/19 12:07	
500-165270-20	G45S	Water	06/28/19 10:31	06/28/19 12:07	

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G20S
Date Collected: 06/18/19 10:45
Date Received: 06/18/19 14:55

Lab Sample ID: 500-165270-1
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.933		0.262	0.275	1.00	0.222	pCi/L	06/24/19 12:50	08/24/19 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*40 - 110*	*06/24/19 12:50*	*08/24/19 11:51*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.18		0.291	0.310	1.00	0.351	pCi/L	06/24/19 14:17	08/23/19 09:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.8*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:18*	*1*
Y Carrier	*95.3*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:18*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.11		0.392	0.414	5.00	0.351	pCi/L		08/28/19 07:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G44S
Date Collected: 06/19/19 10:54
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-2
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.246	U	0.192	0.194	1.00	0.290	pCi/L	06/24/19 12:50	08/24/19 13:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*06/24/19 12:50*	*08/24/19 13:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.595**		0.287	0.292	1.00	0.422	pCi/L	06/24/19 14:17	08/23/19 09:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:18*	*1*
Y Carrier	*88.2*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:18*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.841**		0.345	0.351	5.00	0.422	pCi/L		08/28/19 07:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G46S
Date Collected: 06/19/19 12:00
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-3
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.582		0.219	0.225	1.00	0.223	pCi/L	06/24/19 12:50	08/24/19 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*06/24/19 12:50*	*08/24/19 11:53*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.784		0.352	0.360	1.00	0.520	pCi/L	06/24/19 14:17	08/23/19 09:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:21*	*1*
Y Carrier	*81.5*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.37		0.415	0.425	5.00	0.520	pCi/L		08/28/19 07:50	1

Client Sample ID: R08S

Date Collected: 06/19/19 13:05
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.544		0.230	0.235	1.00	0.273	pCi/L	06/24/19 12:50	08/24/19 11:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*06/24/19 12:50*	*08/24/19 11:53*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.958		0.332	0.344	1.00	0.458	pCi/L	06/24/19 14:17	08/23/19 09:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.5*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:21*	*1*
Y Carrier	*83.4*		*40 - 110*	*06/24/19 14:17*	*08/23/19 09:21*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.50		0.404	0.417	5.00	0.458	pCi/L		08/28/19 07:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T06S

Date Collected: 06/20/19 10:40
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.21		0.340	0.357	1.00	0.286	pCi/L	06/28/19 09:25	08/22/19 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:29*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.545		0.316	0.320	1.00	0.482	pCi/L	06/28/19 10:38	08/21/19 14:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.3*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:01*	*1*
Y Carrier	*86.7*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.75		0.464	0.479	5.00	0.482	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T05S

Date Collected: 06/20/19 13:32
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-6

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.284		0.204	0.206	1.00	0.283	pCi/L	06/28/19 09:25	08/22/19 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.7*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:29*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.248	U	0.363	0.364	1.00	0.606	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.7*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*84.1*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.532	U	0.416	0.418	5.00	0.606	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T09S
Date Collected: 06/21/19 09:48
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-7
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.02		0.436	0.472	1.00	0.285	pCi/L	06/28/19 09:25	08/22/19 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:29*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.06		0.310	0.325	1.00	0.408	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*102*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.08		0.535	0.573	5.00	0.408	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T08S
Date Collected: 06/21/19 12:47
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-8
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.315**		0.223	0.225	1.00	0.314	pCi/L	06/28/19 09:25	08/22/19 07:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.6*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:29*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.229	U	0.278	0.279	1.00	0.460	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.6*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*89.3*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.544**		0.356	0.358	5.00	0.460	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G31S
Date Collected: 06/24/19 10:00
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-9
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.28		0.427	0.474	1.00	0.193	pCi/L	06/28/19 09:25	08/22/19 07:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.44		0.363	0.386	1.00	0.444	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*85.6*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.71		0.560	0.611	5.00	0.444	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: DUP

Date Collected: 06/24/19 10:00
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-10

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.01		0.406	0.445	1.00	0.215	pCi/L	06/28/19 09:25	08/22/19 07:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.2*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:40*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.50		0.342	0.369	1.00	0.389	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.2*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*89.3*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.51		0.531	0.578	5.00	0.389	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G33S
Date Collected: 06/24/19 12:37
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-11
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.05**		0.310	0.324	1.00	0.219	pCi/L	06/28/19 09:25	08/22/19 07:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.1*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:40*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.340	U	0.290	0.292	1.00	0.464	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.1*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*87.1*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.39**		0.424	0.436	5.00	0.464	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T03S

Date Collected: 06/24/19 13:58
Date Received: 06/24/19 15:25

Lab Sample ID: 500-165270-12

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.916**		0.285	0.297	1.00	0.217	pCi/L	06/28/19 09:25	08/22/19 07:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.2*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:40*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.411	U	0.277	0.280	1.00	0.429	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.2*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*88.6*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.33**		0.397	0.408	5.00	0.429	pCi/L		08/27/19 10:59	1

Client Sample ID: T02S

Date Collected: 06/25/19 09:34
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-13

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.933**		0.448	0.455	1.00	0.480	pCi/L	06/28/19 09:25	08/22/19 07:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.1*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:40*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.515	U	0.549	0.551	1.00	0.897	pCi/L	06/28/19 10:38	08/21/19 14:02	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.1*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*
Y Carrier	*90.1*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:02*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.45**		0.709	0.715	5.00	0.897	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G48S

Date Collected: 06/25/19 13:36
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-14

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.615		0.267	0.272	1.00	0.303	pCi/L	06/28/19 09:25	08/22/19 07:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:40*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.714		0.352	0.359	1.00	0.521	pCi/L	06/28/19 10:38	08/21/19 14:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:07*	*1*
Y Carrier	*81.5*		*40 - 110*	*06/28/19 10:38*	*08/21/19 14:07*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.33		0.442	0.450	5.00	0.521	pCi/L		08/27/19 10:59	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T01S

Date Collected: 06/26/19 09:27
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-15

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.532		0.284	0.288	1.00	0.352	pCi/L	07/02/19 16:38	08/22/19 16:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*07/02/19 16:38*	*08/22/19 16:29*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.493		0.314	0.317	1.00	0.483	pCi/L	07/02/19 17:39	08/22/19 09:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:18*	*1*
Y Carrier	*90.1*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:18*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.02		0.423	0.428	5.00	0.483	pCi/L		08/27/19 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G30S

Date Collected: 06/26/19 13:18
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-16

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.538		0.340	0.344	1.00	0.489	pCi/L	07/02/19 16:38	08/22/19 16:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.5*		*40 - 110*	*07/02/19 16:38*	*08/22/19 16:29*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.638		0.303	0.309	1.00	0.439	pCi/L	07/02/19 17:39	08/22/19 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.5*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:19*	*1*
Y Carrier	*89.0*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:19*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.18		0.455	0.462	5.00	0.489	pCi/L		08/27/19 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: R32S
Date Collected: 06/27/19 11:59
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-17
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.74		0.434	0.462	1.00	0.334	pCi/L	07/02/19 16:38	08/22/19 16:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*40 - 110*	*07/02/19 16:38*	*08/22/19 16:30*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.931		0.320	0.331	1.00	0.423	pCi/L	07/02/19 17:39	08/22/19 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.9*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:19*	*1*
Y Carrier	*92.0*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:19*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.67		0.539	0.568	5.00	0.423	pCi/L		08/27/19 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T04S
Date Collected: 06/27/19 13:15
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-18
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.567	U	0.567	0.569	1.00	0.899	pCi/L	07/02/19 16:38	08/22/19 16:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.9*		*40 - 110*	*07/02/19 16:38*	*08/22/19 16:30*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.574	U	0.609	0.611	1.00	0.994	pCi/L	07/02/19 17:39	08/22/19 09:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*72.9*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:19*	*1*
Y Carrier	*85.2*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:19*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.14**		0.832	0.835	5.00	0.994	pCi/L		08/27/19 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G47S
Date Collected: 06/28/19 09:10
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-19
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.452**		0.262	0.265	1.00	0.330	pCi/L	07/02/19 16:38	08/22/19 16:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*07/02/19 16:38*	*08/22/19 16:30*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.114	U	0.328	0.328	1.00	0.564	pCi/L	07/02/19 17:39	08/22/19 09:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:22*	*1*
Y Carrier	*89.0*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.566**		0.420	0.422	5.00	0.564	pCi/L		08/27/19 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G45S
Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-20
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.41		0.405	0.424	1.00	0.332	pCi/L	07/02/19 16:38	08/22/19 16:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.6*		*40 - 110*	*07/02/19 16:38*	*08/22/19 16:30*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.584		0.313	0.318	1.00	0.469	pCi/L	07/02/19 17:39	08/22/19 09:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.6*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:22*	*1*
Y Carrier	*89.3*		*40 - 110*	*07/02/19 17:39*	*08/22/19 09:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.99		0.512	0.530	5.00	0.469	pCi/L		08/27/19 10:08	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Rad

Prep Batch: 432651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	PrecSep-21	
500-165270-2	G44S	Total/NA	Water	PrecSep-21	
500-165270-3	G46S	Total/NA	Water	PrecSep-21	
500-165270-4	R08S	Total/NA	Water	PrecSep-21	
MB 160-432651/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-432651/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 432660

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-1	G20S	Total/NA	Water	PrecSep_0	
500-165270-2	G44S	Total/NA	Water	PrecSep_0	
500-165270-3	G46S	Total/NA	Water	PrecSep_0	
500-165270-4	R08S	Total/NA	Water	PrecSep_0	
MB 160-432660/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-432660/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 433127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total/NA	Water	PrecSep-21	
500-165270-6	T05S	Total/NA	Water	PrecSep-21	
500-165270-7	T09S	Total/NA	Water	PrecSep-21	
500-165270-8	T08S	Total/NA	Water	PrecSep-21	
500-165270-9	G31S	Total/NA	Water	PrecSep-21	
500-165270-10	DUP	Total/NA	Water	PrecSep-21	
500-165270-11	G33S	Total/NA	Water	PrecSep-21	
500-165270-12	T03S	Total/NA	Water	PrecSep-21	
500-165270-13	T02S	Total/NA	Water	PrecSep-21	
500-165270-14	G48S	Total/NA	Water	PrecSep-21	
MB 160-433127/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-433127/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-165270-5 DU	T06S	Total/NA	Water	PrecSep-21	

Prep Batch: 433143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-5	T06S	Total/NA	Water	PrecSep_0	
500-165270-6	T05S	Total/NA	Water	PrecSep_0	
500-165270-7	T09S	Total/NA	Water	PrecSep_0	
500-165270-8	T08S	Total/NA	Water	PrecSep_0	
500-165270-9	G31S	Total/NA	Water	PrecSep_0	
500-165270-10	DUP	Total/NA	Water	PrecSep_0	
500-165270-11	G33S	Total/NA	Water	PrecSep_0	
500-165270-12	T03S	Total/NA	Water	PrecSep_0	
500-165270-13	T02S	Total/NA	Water	PrecSep_0	
500-165270-14	G48S	Total/NA	Water	PrecSep_0	
MB 160-433143/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-433143/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-165270-5 DU	T06S	Total/NA	Water	PrecSep_0	

Prep Batch: 433589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-15	T01S	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 433589 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-16	G30S	Total/NA	Water	PrecSep-21	
500-165270-17	R32S	Total/NA	Water	PrecSep-21	
500-165270-18	T04S	Total/NA	Water	PrecSep-21	
500-165270-19	G47S	Total/NA	Water	PrecSep-21	
500-165270-20	G45S	Total/NA	Water	PrecSep-21	
MB 160-433589/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-433589/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 433597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-165270-15	T01S	Total/NA	Water	PrecSep_0	
500-165270-16	G30S	Total/NA	Water	PrecSep_0	
500-165270-17	R32S	Total/NA	Water	PrecSep_0	
500-165270-18	T04S	Total/NA	Water	PrecSep_0	
500-165270-19	G47S	Total/NA	Water	PrecSep_0	
500-165270-20	G45S	Total/NA	Water	PrecSep_0	
MB 160-433597/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-433597/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-432651/24-A
Matrix: Water
Analysis Batch: 440859

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432651

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01232	U	0.0803	0.0803	1.00	0.158	pCi/L	06/24/19 12:50	08/27/19 05:58	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*06/24/19 12:50*	*08/27/19 05:58*	*1*

Lab Sample ID: LCS 160-432651/1-A
Matrix: Water
Analysis Batch: 440426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432651

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	11.18		1.41	1.00	0.315	pCi/L	98	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.1*		*40 - 110*

Lab Sample ID: MB 160-433127/23-A
Matrix: Water
Analysis Batch: 440199

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433127

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.07978	U	0.136	0.137	1.00	0.242	pCi/L	06/28/19 09:25	08/22/19 07:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.8*		*40 - 110*	*06/28/19 09:25*	*08/22/19 07:44*	*1*

Lab Sample ID: LCS 160-433127/1-A
Matrix: Water
Analysis Batch: 440198

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433127

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	12.06		1.47	1.00	0.290	pCi/L	106	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*83.6*		*40 - 110*

Lab Sample ID: 500-165270-5 DU
Matrix: Water
Analysis Batch: 440198

Client Sample ID: T06S
Prep Type: Total/NA
Prep Batch: 433127

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.21			0.9748		0.354	1.00	0.372	pCi/L			0.33	1

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 500-165270-5 DU
Matrix: Water
Analysis Batch: 440198

Client Sample ID: T06S
Prep Type: Total/NA
Prep Batch: 433127

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	79.1		40 - 110

Lab Sample ID: MB 160-433589/24-A
Matrix: Water
Analysis Batch: 440198

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433589

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1061	U	0.179	0.179	1.00	0.314	pCi/L	07/02/19 16:38	08/22/19 18:43	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	83.9		40 - 110	07/02/19 16:38	08/22/19 18:43	1

Lab Sample ID: LCS 160-433589/1-A
Matrix: Water
Analysis Batch: 440196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433589

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.4	11.57		1.49	1.00	0.342	pCi/L	102	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.0		40 - 110

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-432660/24-A
Matrix: Water
Analysis Batch: 440423

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 432660

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.07308	U	0.276	0.276	1.00	0.507	pCi/L	06/24/19 14:17	08/23/19 09:22	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110	06/24/19 14:17	08/23/19 09:22	1
Y Carrier	78.9		40 - 110	06/24/19 14:17	08/23/19 09:22	1

Lab Sample ID: LCS 160-432660/1-A
Matrix: Water
Analysis Batch: 440367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432660

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.91	9.432		1.10	1.00	0.409	pCi/L	106	75 - 125		

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-432660/1-A
Matrix: Water
Analysis Batch: 440367

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 432660

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.1		40 - 110
Y Carrier	87.1		40 - 110

Lab Sample ID: MB 160-433143/23-A
Matrix: Water
Analysis Batch: 440186

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433143

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5594		0.324	0.328	1.00	0.490	pCi/L	06/28/19 10:38	08/21/19 14:11	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		40 - 110	06/28/19 10:38	08/21/19 14:11	1
Y Carrier	82.2		40 - 110	06/28/19 10:38	08/21/19 14:11	1

Lab Sample ID: LCS 160-433143/1-A
Matrix: Water
Analysis Batch: 440167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433143

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.91	9.731		1.17	1.00	0.532	pCi/L	109	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.6		40 - 110
Y Carrier	84.5		40 - 110

Lab Sample ID: 500-165270-5 DU
Matrix: Water
Analysis Batch: 440167

Client Sample ID: T06S
Prep Type: Total/NA
Prep Batch: 433143

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.545			0.2690	U	0.310	1.00	0.508	pCi/L			0.44	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	79.1		40 - 110
Y Carrier	83.0		40 - 110

Lab Sample ID: MB 160-433597/24-A
Matrix: Water
Analysis Batch: 440195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433597

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2883	U	0.259	0.260	1.00	0.415	pCi/L	07/02/19 17:39	08/22/19 09:28	1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-433597/24-A
Matrix: Water
Analysis Batch: 440195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 433597

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	83.9		40 - 110	07/02/19 17:39	08/22/19 09:28	1
Y Carrier	91.2		40 - 110	07/02/19 17:39	08/22/19 09:28	1

Lab Sample ID: LCS 160-433597/1-A
Matrix: Water
Analysis Batch: 440197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 433597

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			8.91	9.839		1.16	1.00	0.434	pCi/L	110	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.0		40 - 110
Y Carrier	90.1		40 - 110

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Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

48hr. Temperature °C of Cooler: 3.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2Q19 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					Comments
1		G205	06/18/19	1045	5	W		1	1	1	1	1					

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/18/19	1455	Paula Dudley	TACH	6/18/19	1455
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

8/30/2019

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Fax:
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Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page ____ of ____

48 hr.

Temperature °C of Cooler: 2.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL.
Lab Project #:
Sampler: Noe G, Rob P.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
2		G445	06/19/19	1054	5	W		✓	✓	✓	✓	✓					
3		G465	06/19/19	1200	5	W		✓	✓	✓	✓	✓					
4		R085	06/19/19	1305	5	W		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TAL	06/19/19	1448		TA	6-19-19	1448
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

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Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page _____ of _____

48 gf Temperature °C of Cooler: 2.6

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Noe Ly Rob P.
Lab PM: Eric Lang

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
5		T06S	06/20/19	1040	5	GW		✓	✓	✓	✓	✓					
6		T05S	06/20/19	1332	5	GW		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TMI	06/20/19	1550	Paula Buckley	TACH	6/20/19	1550
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

8/30/2019

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Chain of Custody Record

Lab Job #: 500 - 165270

Chain of Custody Number:

Page ____ of ____

48 gt

Temperature °C of Cooler: 0.5 - 2.5

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Nick L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8				
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4				
1		T09S	06/21/19	0948	5	W		✓	✓	✓	✓	✓				
8		T08S	06/21/19	1247	5	W		✓	✓	✓	✓	✓				

500-165270 COC

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Comments

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TA	06/21/19	1505	Pallen Buckley	TA CAL	6/21/19	1505
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
							6/21/19
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

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Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 17-737

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2Q19 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Noe L.
Lab PM: Eric Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
9		G31S	06/24/19	1000	5	G		✓	✓	✓	✓	✓					
10		DUP	06/24/19	1000	5	G		✓	✓	✓	✓	✓					DUP of G31S
11		G33S	06/24/19	1237	5	G		✓	✓	✓	✓	✓					
12		T03S	06/24/19	1358	5	G		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/24/19	1525	[signature]	TA Const	6/25/19	0750
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-165270 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

48 hr, Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Ric L., Rob P.
Lab PM: Eric Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
13		TO2S	06/25/19	0934	5	W		✓	✓	✓	✓	✓					
14		G48S	06/25/19	1336	5	W		✓	✓	✓	✓	✓					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
	TA2	06/25/19	1529	Chris Scott	TA-CHI	6/25/19	1529
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

8/30/2019

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

48hr Temperature °C of Cooler: 0.1 +2.1

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Nic L., Rob P.
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Fe, Li, Mo, S	TDS, Fl, Cl, SO4					
15		TOIS	06/26/19	0927	5	W		✓	✓	✓	✓	✓					
16		G30S	06/26/19	1318	5	W		✓	✓	✓	✓	✓					

500-165270 COC

Comments

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TBL	06/26/19	1528	Dawn Buckley	TACHT	6/26/19	1528
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: X
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page _____ of _____

Temperature °C of Cooler: 3.3

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR-2019 GW
Project Location/State: University Park IL
Lab Project #:
Sampler: Noe L., Rob P.
Lab PM: Erik Lang

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
17		R32S	06/27/19	1159	5	W		✓	✓	✓	✓	✓					
18		T04S	06/27/19	1315	5	W		✓	✓	✓	✓	✓					

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TA	06/27/19	1533	[signature]	TA-CHI	6/28/19	1533
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments:

Lab Comments:

TAL-4124-509 (1209)

8/30/2019

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 604
Phone: 708.534.5200 Fax: 708.534.

500-165270 COC

(optional)

Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-165270

Chain of Custody Number:

Page ____ of ____

30 gal. Temperature °C of Cooler: 0.3 → 1.8

Client: Midwest Generation EME LLC
Client Project #:
Project Name: Joliet #9 CCR - 2019 GW
Project Location/State: University Park, IL
Lab Project #:
Sampler: Nose L., Rob
Lab PM: Erik Lang

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	3	3	3	3	8					Comments
							Parameter	Radium 226	Radium 228	Radium 226/228	Total metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4					
19		G475	06/28/19	0910	5	W		1	1	1	1	1					
20		G455	06/28/19	1031	5	W		1	1	1	1	1					

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	TAL	06/28/19	1207	[signature]	TA-CHI	6/28/19	1207
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: TA
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

8/30/2019

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122416.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-165270-1)	6/18/19	10:45 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:
Relinquished by: [signature] Date/Time: 6/18/19 1600 Company TA-CHI	Received by: [signature] Date/Time: 6/19/19 09:30 Company TA STL
Relinquished by: Date/Time: Company	Received by: Date/Time: Company
Relinquished by: Date/Time: Company	Received by: Date/Time: Company
Custody Seals Intact: Δ Yes Δ No Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122461.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/28/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G44S (500-165270-2)	6/19/19	10:54 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G46S (500-165270-3)	6/19/19	12:00 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-165270-4)	6/19/19	13:05 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	6/19/19 1600	TA	[signature]	6/20/19 11:15	TA STL
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122580.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045	PO #:			
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	WO #:			
Email:	Project #: 50011504			
Project Name: Joliet #9 CCR	SSOW#:			
Site: NRG Midwest Generation LSQ Joliet #9 CCR				

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T06S (500-165270-5)	6/20/19	10:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T05S (500-165270-6)	6/20/19	13:32 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T09S (500-165270-7)	6/21/19	09:48 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T08S (500-165270-8)	6/21/19	12:47 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	6-24-19 1600	TA	Received by:	6/26/19 08:35	TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122580.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-2
Address: 13715 Rider Trail North,	Due Date Requested: 7/16/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T06S (500-165270-5)	6/20/19	10:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T05S (500-165270-6)	6/20/19	13:32 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T09S (500-165270-7)	6/21/19	09:48 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T08S (500-165270-8)	6/21/19	12:47 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		6-24-19 1600	TA		6/26/19 08:35	TA STL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

8/30/2019

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122645.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/28/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T02S (500-165270-13)	6/25/19	09:34 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G48S (500-165270-14)	6/25/19	13:36 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by: Date:	Time: Method of Shipment:

Relinquished by:	Date/Time: 6/25/19 1600	Company TA	Received by: Michael Hum	Date/Time: 6-26-19 09:45	Company TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122622.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/28/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G31S (500-165270-9)	6/24/19	10:00 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-165270-10)	6/24/19	10:00 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G33S (500-165270-11)	6/24/19	12:37 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-165270-12)	6/24/19	13:58 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: [signature]	Date/Time: 6/25/19 1315	Company TA-CHI	Received by: [signature]		Date/Time: 6-26-19 0945	Company TASL	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:				

Ver: 01/16/2019

8/30/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

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8/30/2019

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122681.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/28/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T01S (500-165270-15)	6/26/19	09:27 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G30S (500-165270-16)	6/26/19	13:18 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by:	Date/Time: 6/26/19 1555	Company TA-CHI	Received by:		Date/Time: 6/27/19 09:20	Company TASTL	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122724.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 6/28/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
R32S (500-165270-17)	6/27/19	11:59 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T04S (500-165270-18)	6/27/19	13:15 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Allen Leavell	Date/Time: 6/27/19 1550	Company TA CHI	Received by:	Date/Time: 6/28/19 09:00	Company EASTL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-122751.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-165270-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/10/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G47S (500-165270-19)	6/28/19	09:10 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-165270-20)	6/28/19	10:31 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:				
Relinquished by:	Date/Time: 6/28/19 1500	Company TA	Received by:	Date/Time: 6/29/19 08:00	Company TA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 1
Creator: Buckley, Paula M

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8, 2.3, 2.6, 2.5,3.7,3.3, 2.1,3.3,1.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 2
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/19/19 11:13 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 3
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/20/19 12:00 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 5
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/25/19 01:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 6
Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/26/19 12:33 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	17.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 9
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/27/19 02:28 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 11
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/28/19 12:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-165270-2

Login Number: 165270
List Number: 13
Creator: Harris, Lorin C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/29/19 10:51 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G20S
Date Collected: 06/18/19 10:45
Date Received: 06/18/19 14:55

Lab Sample ID: 500-165270-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			432651	06/24/19 12:50	KAW	TAL SL
Total/NA	Analysis	903.0		1	440777	08/24/19 11:51	CDR	TAL SL
Total/NA	Prep	PrecSep_0			432660	06/24/19 14:17	KAW	TAL SL
Total/NA	Analysis	904.0		1	440426	08/23/19 09:18	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	441027	08/28/19 07:50	SMP	TAL SL

Client Sample ID: G44S
Date Collected: 06/19/19 10:54
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			432651	06/24/19 12:50	KAW	TAL SL
Total/NA	Analysis	903.0		1	440777	08/24/19 13:39	CDR	TAL SL
Total/NA	Prep	PrecSep_0			432660	06/24/19 14:17	KAW	TAL SL
Total/NA	Analysis	904.0		1	440426	08/23/19 09:18	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	441027	08/28/19 07:50	SMP	TAL SL

Client Sample ID: G46S
Date Collected: 06/19/19 12:00
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			432651	06/24/19 12:50	KAW	TAL SL
Total/NA	Analysis	903.0		1	440777	08/24/19 11:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			432660	06/24/19 14:17	KAW	TAL SL
Total/NA	Analysis	904.0		1	440423	08/23/19 09:21	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	441027	08/28/19 07:50	SMP	TAL SL

Client Sample ID: R08S
Date Collected: 06/19/19 13:05
Date Received: 06/19/19 14:48

Lab Sample ID: 500-165270-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			432651	06/24/19 12:50	KAW	TAL SL
Total/NA	Analysis	903.0		1	440777	08/24/19 11:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			432660	06/24/19 14:17	KAW	TAL SL
Total/NA	Analysis	904.0		1	440423	08/23/19 09:21	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	441027	08/28/19 07:50	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T06S
Date Collected: 06/20/19 10:40
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 07:29	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:01	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: T05S
Date Collected: 06/20/19 13:32
Date Received: 06/20/19 15:50

Lab Sample ID: 500-165270-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 07:29	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: T09S
Date Collected: 06/21/19 09:48
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 07:29	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: T08S
Date Collected: 06/21/19 12:47
Date Received: 06/21/19 15:05

Lab Sample ID: 500-165270-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 07:29	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: G31S

Lab Sample ID: 500-165270-9
Date Collected: 06/24/19 10:00
Matrix: Water
Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440199	08/22/19 07:39	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: DUP

Lab Sample ID: 500-165270-10
Date Collected: 06/24/19 10:00
Matrix: Water
Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440199	08/22/19 07:40	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: G33S

Lab Sample ID: 500-165270-11
Date Collected: 06/24/19 12:37
Matrix: Water
Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440199	08/22/19 07:40	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: T03S

Lab Sample ID: 500-165270-12
Date Collected: 06/24/19 13:58
Matrix: Water
Date Received: 06/24/19 15:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440199	08/22/19 07:40	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: T02S
Date Collected: 06/25/19 09:34
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440199	08/22/19 07:40	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440167	08/21/19 14:02	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: G48S
Date Collected: 06/25/19 13:36
Date Received: 06/25/19 15:29

Lab Sample ID: 500-165270-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433127	06/28/19 09:25	KAW	TAL SL
Total/NA	Analysis	903.0		1	440199	08/22/19 07:40	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433143	06/28/19 10:38	KAW	TAL SL
Total/NA	Analysis	904.0		1	440166	08/21/19 14:07	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440892	08/27/19 10:59	SMP	TAL SL

Client Sample ID: T01S
Date Collected: 06/26/19 09:27
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433589	07/02/19 16:38	ORM	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 16:29	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433597	07/02/19 17:39	ORM	TAL SL
Total/NA	Analysis	904.0		1	440197	08/22/19 09:18	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440879	08/27/19 10:08	SMP	TAL SL

Client Sample ID: G30S
Date Collected: 06/26/19 13:18
Date Received: 06/26/19 15:28

Lab Sample ID: 500-165270-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433589	07/02/19 16:38	ORM	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 16:29	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433597	07/02/19 17:39	ORM	TAL SL
Total/NA	Analysis	904.0		1	440197	08/22/19 09:19	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440879	08/27/19 10:08	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Client Sample ID: R32S
Date Collected: 06/27/19 11:59
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433589	07/02/19 16:38	ORM	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 16:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433597	07/02/19 17:39	ORM	TAL SL
Total/NA	Analysis	904.0		1	440197	08/22/19 09:19	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440879	08/27/19 10:08	SMP	TAL SL

Client Sample ID: T04S
Date Collected: 06/27/19 13:15
Date Received: 06/27/19 15:33

Lab Sample ID: 500-165270-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433589	07/02/19 16:38	ORM	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 16:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433597	07/02/19 17:39	ORM	TAL SL
Total/NA	Analysis	904.0		1	440197	08/22/19 09:19	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440879	08/27/19 10:08	SMP	TAL SL

Client Sample ID: G47S
Date Collected: 06/28/19 09:10
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433589	07/02/19 16:38	ORM	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 16:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433597	07/02/19 17:39	ORM	TAL SL
Total/NA	Analysis	904.0		1	440198	08/22/19 09:22	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440879	08/27/19 10:08	SMP	TAL SL

Client Sample ID: G45S
Date Collected: 06/28/19 10:31
Date Received: 06/28/19 12:07

Lab Sample ID: 500-165270-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			433589	07/02/19 16:38	ORM	TAL SL
Total/NA	Analysis	903.0		1	440198	08/22/19 16:30	KLS	TAL SL
Total/NA	Prep	PrecSep_0			433597	07/02/19 17:39	ORM	TAL SL
Total/NA	Analysis	904.0		1	440198	08/22/19 09:22	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	440879	08/27/19 10:08	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 CCR

Job ID: 500-165270-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits) Ba Carrier (40-110)
500-165270-1	G20S	95.8
500-165270-2	G44S	93.5
500-165270-3	G46S	93.5
500-165270-4	R08S	95.5
500-165270-5	T06S	83.3
500-165270-5 DU	T06S	79.1
500-165270-6	T05S	79.7
500-165270-7	T09S	84.7
500-165270-8	T08S	83.6
500-165270-9	G31S	84.7
500-165270-10	DUP	84.2
500-165270-11	G33S	79.1
500-165270-12	T03S	82.2
500-165270-13	T02S	79.1
500-165270-14	G48S	79.9
500-165270-15	T01S	76.6
500-165270-16	G30S	78.5
500-165270-17	R32S	79.9
500-165270-18	T04S	72.9
500-165270-19	G47S	76.6
500-165270-20	G45S	81.6
LCS 160-432651/1-A	Lab Control Sample	94.1
LCS 160-433127/1-A	Lab Control Sample	83.6
LCS 160-433589/1-A	Lab Control Sample	85.0
MB 160-432651/24-A	Method Blank	87.6
MB 160-433127/23-A	Method Blank	82.8
MB 160-433589/24-A	Method Blank	83.9

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits) Ba Carrier (40-110)	Y Carrier (40-110)
500-165270-1	G20S	95.8	95.3
500-165270-2	G44S	93.5	88.2
500-165270-3	G46S	93.5	81.5
500-165270-4	R08S	95.5	83.4
500-165270-5	T06S	83.3	86.7
500-165270-5 DU	T06S	79.1	83.0
500-165270-6	T05S	79.7	84.1
500-165270-7	T09S	84.7	102
500-165270-8	T08S	83.6	89.3
500-165270-9	G31S	84.7	85.6
500-165270-10	DUP	84.2	89.3
500-165270-11	G33S	79.1	87.1
500-165270-12	T03S	82.2	88.6

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Job ID: 500-165270-2
Project/Site: Joliet #9 CCR

Method: 904.0 - Radium-228 (GFPC) (Continued)

Matrix: Water
Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Yield (Acceptance Limits) Ba Carrier (40-110)	Y Carrier (40-110)
500-165270-13	T02S	79.1	90.1
500-165270-14	G48S	79.9	81.5
500-165270-15	T01S	76.6	90.1
500-165270-16	G30S	78.5	89.0
500-165270-17	R32S	79.9	92.0
500-165270-18	T04S	72.9	85.2
500-165270-19	G47S	76.6	89.0
500-165270-20	G45S	81.6	89.3
LCS 160-432660/1-A	Lab Control Sample	94.1	87.1
LCS 160-433143/1-A	Lab Control Sample	83.6	84.5
LCS 160-433597/1-A	Lab Control Sample	85.0	90.1
MB 160-432660/24-A	Method Blank	87.6	78.9
MB 160-433143/23-A	Method Blank	82.8	82.2
MB 160-433597/24-A	Method Blank	83.9	91.2

Tracer/Carrier Legend

Ba Carrier = Ba Carrier
Y Carrier = Y Carrier

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-172766-1
Client Project/Site: Lincoln Stone Quarry - 4Q19 Routine

For:
Midwest Generation EME LLC
1800 Channahon Road
Joliet, Illinois 60436

Attn: Peter O'Day

Authorized for release by:
12/2/2019 5:14:29 PM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Job ID: 500-172766-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-172766-1

Comments
No additional comments.

Receipt
The samples were received on 11/1/2019 3:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 11 coolers at receipt time were 2.9º C, 3.4º C, 3.6º C, 3.7º C, 4.2º C, 4.6º C, 4.7º C, 5.1º C, 5.3º C, 5.4º C and 5.9º C.

GC/MS Semi VOA
Method 8270D: Surrogate recovery for the following samples were outside the upper control limit: G42S (500-172766-4) and G42D (500-172766-5). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The following samples contained one base surrogate outside acceptance limits: The laboratory's SOP allows one base surrogate to be outside acceptance limits; therefore, re-extraction was not performed. These results have been reported and qualified. G41S (500-172766-2) and G33D (500-172766-3)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
Method 6010B: The continuing calibration blanks (CCB) contained Zinc above the reporting limit (RL). The sample G41S (500-172766-2) associated with this CCB did not contain the target compound; therefore, re-analysis of samples was not performed.

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-517287 recovered above the upper control limit for iron. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 6010B: The continuing calibration verification (CCV) associated with batch 500-517287 recovered above the upper control limit for zinc. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Field Service / Mobile Lab
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method 9056A: The matrix spike and duplicate (MS/MSD) for Sulfate is routinely spiked at a level below the client's requested reporting limit (RL). The MS/MSD are reported as ND, but met recovery criteria.

(500-172766-J-4 MS) and (500-172766-J-4 MSD)

Method SM 4500 NO3 F: The CCV bracketing the following samples was slightly outside acceptance limits for Nitrogen, Nitrate Nitrite. The samples had been run multiple times with similar results. The samples have been reported. G47D (500-172766-15), R08D (500-172766-16), R08S (500-172766-17), G39S (500-172766-18), G44S (500-172766-19), G44D (500-172766-20), G46D (500-172766-21), G46S (500-172766-22) and G31D (500-172766-23)

Method SM 4500 NO3 F: The following sample was analyzed multiple times with a similar result. The bracketing CCV recovered outside acceptance limits for Nitrogen, Nitrate Nitrite at 89% Rec. The Samples were qualified and reported.
G45S (500-172766-27), G38D (500-172766-28) and G38S (500-172766-29)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Method	Method Description	Protocol	Laboratory
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010B	Dissolved Metals	SW846	TAL CHI
6010B	Metals (ICP)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
2540 C	Total Dissolved Solids - SM 20th Ed.	SM20	TAL CHI
9056A	Anions, Ion Chromatography	SW846	TAL CHI
Nitrate by calc	Nitrogen, Nitrate-Nitrite	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 NH3 G	Ammonia	SM	TAL CHI
SM 5310C	Organic Carbon, Dissolved (DOC)	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI
3010A	Preparation, Total Metals	SW846	TAL CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL CHI
7470A	Preparation, Mercury	SW846	TAL CHI
SM 4500 NH3 B	Distillation, Ammonia	SM	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"
SM20 = "Standard Methods For The Examination Of Water And Wastewater", 20th Edition."
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-172766-1	G41D	Water	11/01/19 10:26	11/01/19 15:20	
500-172766-2	G41S	Water	11/01/19 11:20	11/01/19 15:20	
500-172766-3	G33D	Water	11/01/19 14:10	11/01/19 15:20	
500-172766-4	G42S	Water	11/04/19 09:30	11/04/19 16:13	
500-172766-5	G42D	Water	11/04/19 11:29	11/04/19 16:13	
500-172766-6	G33S	Water	11/04/19 14:27	11/04/19 16:13	
500-172766-7	G20S	Water	11/05/19 09:34	11/05/19 15:20	
500-172766-8	R16D	Water	11/05/19 13:37	11/05/19 15:20	
500-172766-9	G30S	Water	11/06/19 10:18	11/06/19 15:27	
500-172766-10	G30D	Water	11/06/19 12:54	11/06/19 15:27	
500-172766-11	R32S	Water	11/06/19 14:19	11/06/19 15:27	
500-172766-12	G48D	Water	11/07/19 09:23	11/07/19 15:27	
500-172766-13	G48S	Water	11/07/19 10:41	11/07/19 15:27	
500-172766-14	G47S	Water	11/07/19 13:00	11/07/19 15:27	
500-172766-15	G47D	Water	11/07/19 14:00	11/07/19 15:27	
500-172766-16	R08D	Water	11/11/19 10:56	11/11/19 15:44	
500-172766-17	R08S	Water	11/11/19 12:30	11/11/19 15:44	
500-172766-18	G39S	Water	11/11/19 14:13	11/11/19 15:44	
500-172766-19	G44S	Water	11/12/19 13:30	11/12/19 15:25	
500-172766-20	G44D	Water	11/12/19 14:19	11/12/19 15:25	
500-172766-21	G46D	Water	11/13/19 10:20	11/13/19 15:22	
500-172766-22	G46S	Water	11/13/19 11:42	11/13/19 15:22	
500-172766-23	G31D	Water	11/13/19 13:11	11/13/19 15:22	
500-172766-24	G31S	Water	11/13/19 14:14	11/13/19 15:22	
500-172766-25	S501	Water	11/14/19 08:55	11/14/19 13:40	
500-172766-26	P40S	Water	11/14/19 09:10	11/14/19 13:40	
500-172766-27	G45S	Water	11/14/19 09:51	11/14/19 13:40	
500-172766-28	G38D	Water	11/14/19 11:26	11/14/19 13:40	
500-172766-29	G38S	Water	11/14/19 12:17	11/14/19 13:40	

Client Sample ID: G41D
Date Collected: 11/01/19 10:26
Date Received: 11/01/19 15:20

Lab Sample ID: 500-172766-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.19		ug/L		11/05/19 07:46	11/06/19 10:08	1
Fluoranthene	ND		0.94		ug/L		11/05/19 07:46	11/06/19 10:08	1
Pyrene	ND		0.94		ug/L		11/05/19 07:46	11/06/19 10:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*36*		*36 - 120*	*11/05/19 07:46*	*11/06/19 10:08*	*1*
2-Fluorobiphenyl (Surr)	*69*		*34 - 110*	*11/05/19 07:46*	*11/06/19 10:08*	*1*
Terphenyl-d14 (Surr)	*106*		*40 - 145*	*11/05/19 07:46*	*11/06/19 10:08*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:25	1
Barium	**31**		10		ug/L		11/13/19 16:55	11/15/19 04:25	1
Boron	**1800**		50		ug/L		11/13/19 16:55	11/15/19 04:25	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:25	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 04:25	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 04:25	1
Potassium	**10**		0.50		mg/L		11/13/19 16:55	11/15/19 04:25	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:25	1
Sodium	**190**		1.0		mg/L		11/13/19 16:55	11/15/19 04:25	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 04:25	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**31**		10		ug/L		11/13/19 16:53	11/15/19 03:00	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**540**		10		mg/L			11/06/19 05:59	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**33**		5.0		mg/L			11/14/19 19:55	10
Nitrogen, Nitrate	ND		0.10		mg/L			11/27/19 18:29	1
Chloride	**15**		2.0		mg/L			11/14/19 14:50	1
Fluoride	**3.1**		0.10		mg/L			11/05/19 12:09	1
Ammonia	**0.74**		0.20		mg/L		11/21/19 09:45	11/21/19 12:21	1
DOC Dup	ND		1.0		mg/L			11/12/19 17:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**23.38**				ft			11/01/19 10:26	1
Depth to Water (ft from MP)	**25.51**				ft			11/01/19 10:26	1
Elevation of well (ft from MP)	**535.76**				ft			11/01/19 10:26	1
Field pH	**7.86**				SU			11/01/19 10:26	1
Field Temperature	**55.9**				Degrees F			11/01/19 10:26	1
Ground Water Elevation	**510.25**				ft			11/01/19 10:26	1
Specific Conductance	**720**				umhos/cm			11/01/19 10:26	1
Well bottom elevation	**378.43**				ft			11/01/19 10:26	1

Client Sample ID: G41S
Date Collected: 11/01/19 11:20
Date Received: 11/01/19 15:20

Lab Sample ID: 500-172766-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 07:46	11/06/19 10:35	1
Fluoranthene	ND		0.82		ug/L		11/05/19 07:46	11/06/19 10:35	1
Pyrene	ND		0.82		ug/L		11/05/19 07:46	11/06/19 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*27*	*X*	*36 - 120*	*11/05/19 07:46*	*11/06/19 10:35*	*1*
2-Fluorobiphenyl (Surr)	*64*		*34 - 110*	*11/05/19 07:46*	*11/06/19 10:35*	*1*
Terphenyl-d14 (Surr)	*91*		*40 - 145*	*11/05/19 07:46*	*11/06/19 10:35*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:29	1
Barium	**40**		10		ug/L		11/13/19 16:55	11/15/19 04:29	1
Boron	**2200**		50		ug/L		11/13/19 16:55	11/15/19 04:29	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:29	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 04:29	1
Molybdenum	**48**		10		ug/L		11/13/19 16:55	11/15/19 04:29	1
Potassium	**13**		0.50		mg/L		11/13/19 16:55	11/15/19 04:29	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:29	1
Sodium	**53**		1.0		mg/L		11/13/19 16:55	11/15/19 04:29	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 04:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**40**		10		ug/L		11/13/19 16:53	11/15/19 03:21	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**740**		10		mg/L			11/06/19 06:06	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**200**		10		mg/L			11/14/19 20:07	50
Nitrogen, Nitrate	ND		0.10		mg/L			11/27/19 18:29	1
Chloride	**87**		10		mg/L			11/14/19 15:27	5
Fluoride	**0.46**		0.10		mg/L			11/05/19 12:18	1
Ammonia	**0.70**		0.20		mg/L		11/21/19 09:45	11/21/19 12:29	1
DOC Dup	**1.9**		1.0		mg/L			11/12/19 18:10	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**21.71**				ft			11/01/19 11:20	1
Depth to Water (ft from MP)	**24.00**				ft			11/01/19 11:20	1
Elevation of well (ft from MP)	**535.86**				ft			11/01/19 11:20	1
Field pH	**7.71**				SU			11/01/19 11:20	1
Field Temperature	**53.1**				Degrees F			11/01/19 11:20	1
Ground Water Elevation	**511.86**				ft			11/01/19 11:20	1
Specific Conductance	**884**				umhos/cm			11/01/19 11:20	1
Well bottom elevation	**453.96**				ft			11/01/19 11:20	1

Client Sample ID: G33D
Date Collected: 11/01/19 14:10
Date Received: 11/01/19 15:20

Lab Sample ID: 500-172766-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 07:46	11/06/19 11:02	1
Fluoranthene	ND		0.80		ug/L		11/05/19 07:46	11/06/19 11:02	1
Pyrene	ND		0.80		ug/L		11/05/19 07:46	11/06/19 11:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*19*	*X*	*36 - 120*	*11/05/19 07:46*	*11/06/19 11:02*	*1*
2-Fluorobiphenyl (Surr)	*55*		*34 - 110*	*11/05/19 07:46*	*11/06/19 11:02*	*1*
Terphenyl-d14 (Surr)	*86*		*40 - 145*	*11/05/19 07:46*	*11/06/19 11:02*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:33	1
Barium	**61**		10		ug/L		11/13/19 16:55	11/15/19 04:33	1
Boron	**1600**		50		ug/L		11/13/19 16:55	11/15/19 04:33	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:33	1
Manganese	**13**		10		ug/L		11/13/19 16:55	11/15/19 04:33	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 04:33	1
Potassium	**14**		0.50		mg/L		11/13/19 16:55	11/15/19 04:33	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:33	1
Sodium	**120**		1.0		mg/L		11/13/19 16:55	11/15/19 04:33	1
Zinc	**21**		20		ug/L		11/13/19 16:55	11/15/19 13:21	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**59**		10		ug/L		11/13/19 16:53	11/15/19 03:25	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**490**		10		mg/L			11/06/19 06:12	1
Nitrogen, Nitrate	**0.62**		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**62**		5.0		mg/L			11/14/19 20:20	20
Nitrogen, Nitrate	ND		0.10		mg/L			11/27/19 18:29	1
Chloride	**5.9**		2.0		mg/L			11/14/19 14:52	1
Fluoride	**1.6**		0.10		mg/L			11/05/19 12:21	1
Ammonia	**0.85**		0.20		mg/L		11/21/19 09:45	11/21/19 12:32	1
DOC Dup	ND		1.0		mg/L			11/12/19 18:26	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**22.00**				ft			11/01/19 14:10	1
Depth to Water (ft from MP)	**24.35**				ft			11/01/19 14:10	1
Elevation of well (ft from MP)	**536.20**				ft			11/01/19 14:10	1
Field pH	**7.65**				SU			11/01/19 14:10	1
Field Temperature	**55.4**				Degrees F			11/01/19 14:10	1
Ground Water Elevation	**511.85**				ft			11/01/19 14:10	1
Specific Conductance	**661**				umhos/cm			11/01/19 14:10	1
Well bottom elevation	**369.10**				ft			11/01/19 14:10	1

Client Sample ID: G42S
Date Collected: 11/04/19 09:30
Date Received: 11/04/19 16:13

Lab Sample ID: 500-172766-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 16:53	11/20/19 17:15	1
Fluoranthene	ND		0.79		ug/L		11/05/19 16:53	11/20/19 17:15	1
Pyrene	ND		0.79		ug/L		11/05/19 16:53	11/20/19 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*105*		*36 - 120*	*11/05/19 16:53*	*11/20/19 17:15*	*1*
2-Fluorobiphenyl (Surr)	*112*	*X*	*34 - 110*	*11/05/19 16:53*	*11/20/19 17:15*	*1*
Terphenyl-d14 (Surr)	*171*	*X*	*40 - 145*	*11/05/19 16:53*	*11/20/19 17:15*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:46	1
Barium	**16**		10		ug/L		11/13/19 16:55	11/15/19 04:46	1
Boron	**1900**		50		ug/L		11/13/19 16:55	11/15/19 04:46	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:46	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 04:46	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 04:46	1
Potassium	**9.9**		0.50		mg/L		11/13/19 16:55	11/15/19 04:46	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:46	1
Sodium	**240**		1.0		mg/L		11/13/19 16:55	11/15/19 04:46	1
Zinc	**45**		20		ug/L		11/13/19 16:55	11/15/19 04:46	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**17**		10		ug/L		11/13/19 16:53	11/15/19 03:29	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**630**		10		mg/L			11/06/19 06:14	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			11/14/19 20:32	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/27/19 18:29	1
Chloride	**17**		2.0		mg/L			11/14/19 14:53	1
Fluoride	**3.7**		0.10		mg/L			11/05/19 12:24	1
Ammonia	**0.68**		0.20		mg/L		11/21/19 09:45	11/21/19 12:35	1
DOC Dup	**1.1**		1.0		mg/L			11/12/19 18:43	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**8.12**				ft			11/04/19 09:30	1
Depth to Water (ft from MP)	**10.11**				ft			11/04/19 09:30	1
Elevation of well (ft from MP)	**528.56**				ft			11/04/19 09:30	1
Field pH	**7.66**				SU			11/04/19 09:30	1
Field Temperature	**55.8**				Degrees F			11/04/19 09:30	1
Ground Water Elevation	**518.45**				ft			11/04/19 09:30	1
Specific Conductance	**657**				umhos/cm			11/04/19 09:30	1
Well bottom elevation	**451.26**				ft			11/04/19 09:30	1

Client Sample ID: G42D
Date Collected: 11/04/19 11:29
Date Received: 11/04/19 16:13

Lab Sample ID: 500-172766-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 16:53	11/20/19 17:44	1
Fluoranthene	ND		0.78		ug/L		11/05/19 16:53	11/20/19 17:44	1
Pyrene	ND		0.78		ug/L		11/05/19 16:53	11/20/19 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*108*		*36 - 120*	*11/05/19 16:53*	*11/20/19 17:44*	*1*
2-Fluorobiphenyl (Surr)	*107*		*34 - 110*	*11/05/19 16:53*	*11/20/19 17:44*	*1*
Terphenyl-d14 (Surr)	*173*	*X*	*40 - 145*	*11/05/19 16:53*	*11/20/19 17:44*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:51	1
Barium	**23**		10		ug/L		11/13/19 16:55	11/15/19 04:51	1
Boron	**530**		50		ug/L		11/13/19 16:55	11/15/19 04:51	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:51	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 04:51	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 04:51	1
Potassium	**12**		0.50		mg/L		11/13/19 16:55	11/15/19 04:51	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:51	1
Sodium	**14**		1.0		mg/L		11/13/19 16:55	11/15/19 04:51	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 04:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**23**		10		ug/L		11/13/19 16:53	11/15/19 03:33	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**460**		10		mg/L			11/06/19 06:17	1
Nitrogen, Nitrate	**0.21**		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**76**		5.0		mg/L			11/14/19 21:09	20
Nitrogen, Nitrate	**0.31**		0.10		mg/L			11/29/19 19:27	1
Chloride	**31**		2.0		mg/L			11/14/19 14:54	1
Fluoride	**0.43**		0.10		mg/L			11/05/19 12:27	1
Ammonia	**0.23**		0.20		mg/L		11/21/19 09:45	11/21/19 12:37	1
DOC Dup	**1.4**		1.0		mg/L			11/12/19 18:59	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**11.90**				ft			11/04/19 11:29	1
Depth to Water (ft from MP)	**14.13**				ft			11/04/19 11:29	1
Elevation of well (ft from MP)	**528.83**				ft			11/04/19 11:29	1
Field pH	**7.91**				SU			11/04/19 11:29	1
Field Temperature	**57.0**				Degrees F			11/04/19 11:29	1
Ground Water Elevation	**514.70**				ft			11/04/19 11:29	1
Specific Conductance	**859**				umhos/cm			11/04/19 11:29	1
Well bottom elevation	**376.55**				ft			11/04/19 11:29	1

Client Sample ID: G33S
Date Collected: 11/04/19 14:27
Date Received: 11/04/19 16:13

Lab Sample ID: 500-172766-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 16:53	11/20/19 18:14	1
Fluoranthene	ND		0.78		ug/L		11/05/19 16:53	11/20/19 18:14	1
Pyrene	ND		0.78		ug/L		11/05/19 16:53	11/20/19 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*36 - 120*	*11/05/19 16:53*	*11/20/19 18:14*	*1*
2-Fluorobiphenyl (Surr)	*69*		*34 - 110*	*11/05/19 16:53*	*11/20/19 18:14*	*1*
Terphenyl-d14 (Surr)	*105*		*40 - 145*	*11/05/19 16:53*	*11/20/19 18:14*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:55	1
Barium	**48**		10		ug/L		11/13/19 16:55	11/15/19 04:55	1
Boron	**1400**		50		ug/L		11/13/19 16:55	11/15/19 04:55	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:55	1
Manganese	**22**		10		ug/L		11/13/19 16:55	11/15/19 04:55	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 04:55	1
Potassium	**15**		0.50		mg/L		11/13/19 16:55	11/15/19 04:55	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:55	1
Sodium	**84**		1.0		mg/L		11/13/19 16:55	11/15/19 04:55	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 04:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**79**		10		ug/L		11/13/19 16:53	11/15/19 03:50	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**470**		10		mg/L			11/06/19 06:19	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**60**		5.0		mg/L			11/14/19 21:21	10
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**4.8**		2.0		mg/L			11/14/19 14:55	1
Fluoride	**1.1**		0.10		mg/L			11/05/19 12:31	1
Ammonia	**0.61**		0.20		mg/L		11/21/19 09:45	11/21/19 12:40	1
DOC Dup	**1.8**		1.0		mg/L			11/12/19 19:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**22.36**				ft			11/04/19 14:27	1
Depth to Water (ft from MP)	**24.09**				ft			11/04/19 14:27	1
Elevation of well (ft from MP)	**535.66**				ft			11/04/19 14:27	1
Field pH	**7.59**				SU			11/04/19 14:27	1
Field Temperature	**55.6**				Degrees F			11/04/19 14:27	1
Ground Water Elevation	**511.57**				ft			11/04/19 14:27	1
Specific Conductance	**627**				umhos/cm			11/04/19 14:27	1
Well bottom elevation	**452.72**				ft			11/04/19 14:27	1

Client Sample ID: G20S
Lab Sample ID: 500-172766-7

Date Collected: 11/05/19 09:34
Matrix: Water
Date Received: 11/05/19 15:20

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 16:53	11/20/19 18:43	1
Fluoranthene	ND		0.81		ug/L		11/05/19 16:53	11/20/19 18:43	1
Pyrene	ND		0.81		ug/L		11/05/19 16:53	11/20/19 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*68*		*36 - 120*	*11/05/19 16:53*	*11/20/19 18:43*	*1*
2-Fluorobiphenyl (Surr)	*68*		*34 - 110*	*11/05/19 16:53*	*11/20/19 18:43*	*1*
Terphenyl-d14 (Surr)	*115*		*40 - 145*	*11/05/19 16:53*	*11/20/19 18:43*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:59	1
Barium	**50**		10		ug/L		11/13/19 16:55	11/15/19 04:59	1
Boron	**1200**		50		ug/L		11/13/19 16:55	11/15/19 04:59	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:59	1
Manganese	**140**		10		ug/L		11/13/19 16:55	11/15/19 04:59	1
Molybdenum	**21**		10		ug/L		11/13/19 16:55	11/15/19 04:59	1
Potassium	**13**		0.50		mg/L		11/13/19 16:55	11/15/19 04:59	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:59	1
Sodium	**42**		1.0		mg/L		11/13/19 16:55	11/15/19 04:59	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 04:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**48**		10		ug/L		11/13/19 16:53	11/15/19 03:54	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**410**		10		mg/L			11/06/19 06:22	1
Nitrogen, Nitrate	**0.29**		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**71**		5.0		mg/L			11/29/19 15:39	10
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**13**		2.0		mg/L			11/27/19 12:36	1
Fluoride	**0.74**		0.10		mg/L			11/22/19 21:57	1
Ammonia	**0.29**		0.20		mg/L		11/24/19 15:00	11/25/19 08:39	1
DOC Dup	**1.2**		1.0		mg/L			11/12/19 19:32	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**36.74**				ft			11/05/19 09:34	1
Depth to Water (ft from MP)	**39.52**				ft			11/05/19 09:34	1
Elevation of well (ft from MP)	**580.91**				ft			11/05/19 09:34	1
Field pH	**7.88**				SU			11/05/19 09:34	1
Field Temperature	**54.0**				Degrees F			11/05/19 09:34	1
Ground Water Elevation	**541.39**				ft			11/05/19 09:34	1
Specific Conductance	**568**				umhos/cm			11/05/19 09:34	1
Well bottom elevation	**442.28**				ft			11/05/19 09:34	1

Client Sample ID: R16D
Date Collected: 11/05/19 13:37
Date Received: 11/05/19 15:20

Lab Sample ID: 500-172766-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 16:53	11/20/19 19:13	1
Fluoranthene	ND		0.82		ug/L		11/05/19 16:53	11/20/19 19:13	1
Pyrene	ND		0.82		ug/L		11/05/19 16:53	11/20/19 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*36 - 120*	*11/05/19 16:53*	*11/20/19 19:13*	*1*
2-Fluorobiphenyl (Surr)	*77*		*34 - 110*	*11/05/19 16:53*	*11/20/19 19:13*	*1*
Terphenyl-d14 (Surr)	*121*		*40 - 145*	*11/05/19 16:53*	*11/20/19 19:13*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:04	1
Barium	**65**		10		ug/L		11/13/19 16:55	11/15/19 05:04	1
Boron	**910**		50		ug/L		11/13/19 16:55	11/15/19 05:04	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:04	1
Manganese	**12**		10		ug/L		11/13/19 16:55	11/15/19 05:04	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 05:04	1
Potassium	**17**		0.50		mg/L		11/13/19 16:55	11/15/19 05:04	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:04	1
Sodium	**200**		1.0		mg/L		11/13/19 16:55	11/15/19 05:04	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**65**		10		ug/L		11/13/19 16:53	11/15/19 03:58	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 03:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**820**		10		mg/L			11/06/19 06:25	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**130**		5.0		mg/L			11/14/19 22:22	25
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**110**		10		mg/L			11/14/19 15:27	5
Fluoride	**0.25**		0.10		mg/L			11/22/19 21:40	1
Ammonia	**0.96**		0.20		mg/L		11/24/19 15:00	11/25/19 08:47	1
DOC Dup	**1.5**		1.0		mg/L			11/12/19 19:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**51.98**				ft			11/05/19 13:37	1
Depth to Water (ft from MP)	**54.71**				ft			11/05/19 13:37	1
Elevation of well (ft from MP)	**581.09**				ft			11/05/19 13:37	1
Field pH	**7.49**				SU			11/05/19 13:37	1
Field Temperature	**55.4**				Degrees F			11/05/19 13:37	1
Ground Water Elevation	**526.38**				ft			11/05/19 13:37	1
Specific Conductance	**1106**				umhos/cm			11/05/19 13:37	1
Well bottom elevation	**385.45**				ft			11/05/19 13:37	1

Client Sample ID: G30S
Date Collected: 11/06/19 10:18
Date Received: 11/06/19 15:27

Lab Sample ID: 500-172766-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/07/19 15:45	11/23/19 13:29	1
Fluoranthene	ND		0.75		ug/L		11/07/19 15:45	11/23/19 13:29	1
Pyrene	ND		0.75		ug/L		11/07/19 15:45	11/23/19 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*36 - 120*	*11/07/19 15:45*	*11/23/19 13:29*	*1*
2-Fluorobiphenyl (Surr)	*64*		*34 - 110*	*11/07/19 15:45*	*11/23/19 13:29*	*1*
Terphenyl-d14 (Surr)	*101*		*40 - 145*	*11/07/19 15:45*	*11/23/19 13:29*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:08	1
Barium	**41**		10		ug/L		11/13/19 16:55	11/15/19 05:08	1
Boron	**4500**		50		ug/L		11/13/19 16:55	11/15/19 05:08	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:08	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 05:08	1
Molybdenum	**13**		10		ug/L		11/13/19 16:55	11/15/19 05:08	1
Potassium	**15**		0.50		mg/L		11/13/19 16:55	11/15/19 05:08	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:08	1
Sodium	**270**		1.0		mg/L		11/13/19 16:55	11/15/19 05:08	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:08	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**42**		10		ug/L		11/13/19 16:53	11/15/19 04:02	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			11/07/19 07:58	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**350**		20		mg/L			11/14/19 22:35	100
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**210**		10		mg/L			11/14/19 15:29	5
Fluoride	**1.1**		0.10		mg/L			11/22/19 22:14	1
Ammonia	**2.4**		0.20		mg/L		11/24/19 15:00	11/25/19 08:49	1
DOC Dup	**4.4**		1.0		mg/L			11/12/19 20:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**-0.97**				ft			11/06/19 10:18	1
Depth to Water (ft from MP)	**1.34**				ft			11/06/19 10:18	1
Elevation of well (ft from MP)	**524.70**				ft			11/06/19 10:18	1
Field pH	**7.99**				SU			11/06/19 10:18	1
Field Temperature	**49.1**				Degrees F			11/06/19 10:18	1
Ground Water Elevation	**523.36**				ft			11/06/19 10:18	1
Specific Conductance	**1476**				umhos/cm			11/06/19 10:18	1
Well bottom elevation	**462.58**				ft			11/06/19 10:18	1

Client Sample ID: G30D
Date Collected: 11/06/19 12:54
Date Received: 11/06/19 15:27

Lab Sample ID: 500-172766-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/07/19 15:45	11/23/19 13:53	1
Fluoranthene	ND		0.77		ug/L		11/07/19 15:45	11/23/19 13:53	1
Pyrene	ND		0.77		ug/L		11/07/19 15:45	11/23/19 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*53*		*36 - 120*	*11/07/19 15:45*	*11/23/19 13:53*	*1*
2-Fluorobiphenyl (Surr)	*58*		*34 - 110*	*11/07/19 15:45*	*11/23/19 13:53*	*1*
Terphenyl-d14 (Surr)	*96*		*40 - 145*	*11/07/19 15:45*	*11/23/19 13:53*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:13	1
Barium	**56**		10		ug/L		11/13/19 16:55	11/15/19 05:13	1
Boron	**1000**		50		ug/L		11/13/19 16:55	11/15/19 05:13	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:13	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 05:13	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 05:13	1
Potassium	**14**		0.50		mg/L		11/13/19 16:55	11/15/19 05:13	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:13	1
Sodium	**110**		1.0		mg/L		11/13/19 16:55	11/15/19 05:13	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:13	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**55**		10		ug/L		11/13/19 16:53	11/15/19 04:06	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**510**		10		mg/L			11/07/19 08:06	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**75**		5.0		mg/L			11/14/19 22:47	20
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**3.5**		2.0		mg/L			11/14/19 15:02	1
Fluoride	**0.75**		0.10		mg/L			11/22/19 22:17	1
Ammonia	**0.76**		0.20		mg/L		11/24/19 15:00	11/25/19 08:52	1
DOC Dup	**1.3**		1.0		mg/L			11/12/19 20:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**10.62**				ft			11/06/19 12:54	1
Depth to Water (ft from MP)	**13.04**				ft			11/06/19 12:54	1
Elevation of well (ft from MP)	**524.81**				ft			11/06/19 12:54	1
Field pH	**7.71**				SU			11/06/19 12:54	1
Field Temperature	**52.5**				Degrees F			11/06/19 12:54	1
Ground Water Elevation	**511.77**				ft			11/06/19 12:54	1
Specific Conductance	**691**				umhos/cm			11/06/19 12:54	1
Well bottom elevation	**389.30**				ft			11/06/19 12:54	1

Client Sample ID: R32S

Date Collected: 11/06/19 14:19
Date Received: 11/06/19 15:27

Lab Sample ID: 500-172766-11

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/07/19 15:45	11/23/19 15:11	1
Fluoranthene	ND		0.80		ug/L		11/07/19 15:45	11/23/19 15:11	1
Pyrene	ND		0.80		ug/L		11/07/19 15:45	11/23/19 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*60*		*36 - 120*	*11/07/19 15:45*	*11/23/19 15:11*	*1*
2-Fluorobiphenyl (Surr)	*68*		*34 - 110*	*11/07/19 15:45*	*11/23/19 15:11*	*1*
Terphenyl-d14 (Surr)	*91*		*40 - 145*	*11/07/19 15:45*	*11/23/19 15:11*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:17	1
Barium	**45**		10		ug/L		11/13/19 16:55	11/15/19 05:17	1
Boron	**4800**		50		ug/L		11/13/19 16:55	11/15/19 05:17	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:17	1
Manganese	**14**		10		ug/L		11/13/19 16:55	11/15/19 05:17	1
Molybdenum	**580**		10		ug/L		11/13/19 16:55	11/15/19 05:17	1
Potassium	**19**		0.50		mg/L		11/13/19 16:55	11/15/19 05:17	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:17	1
Sodium	**74**		1.0		mg/L		11/13/19 16:55	11/15/19 05:17	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**39**		10		ug/L		11/13/19 16:53	11/15/19 04:11	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**820**		10		mg/L			11/13/19 01:33	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**360**		20		mg/L			11/14/19 22:59	100
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**69**		2.0		mg/L			11/14/19 15:02	1
Fluoride	**0.27**		0.10		mg/L			11/22/19 22:22	1
Ammonia	**2.2**		0.20		mg/L		11/24/19 15:00	11/25/19 08:55	1
DOC Dup	**2.6**		1.0		mg/L			11/12/19 20:38	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**14.51**				ft			11/06/19 14:19	1
Depth to Water (ft from MP)	**16.54**				ft			11/06/19 14:19	1
Elevation of well (ft from MP)	**536.99**				ft			11/06/19 14:19	1
Field pH	**7.45**				SU			11/06/19 14:19	1
Field Temperature	**53.6**				Degrees F			11/06/19 14:19	1
Ground Water Elevation	**520.45**				ft			11/06/19 14:19	1
Specific Conductance	**785**				umhos/cm			11/06/19 14:19	1
Well bottom elevation	**457.84**				ft			11/06/19 14:19	1

Client Sample ID: G48D
Date Collected: 11/07/19 09:23
Date Received: 11/07/19 15:27

Lab Sample ID: 500-172766-12
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/08/19 08:19	11/20/19 19:42	1
Fluoranthene	ND		0.79		ug/L		11/08/19 08:19	11/20/19 19:42	1
Pyrene	ND		0.79		ug/L		11/08/19 08:19	11/20/19 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*11/08/19 08:19*	*11/20/19 19:42*	*1*
2-Fluorobiphenyl (Surr)	*87*		*34 - 110*	*11/08/19 08:19*	*11/20/19 19:42*	*1*
Terphenyl-d14 (Surr)	*115*		*40 - 145*	*11/08/19 08:19*	*11/20/19 19:42*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**25**		10		ug/L		11/13/19 16:53	11/15/19 04:15	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:15	1
Iron	**540**		200		ug/L		11/13/19 16:53	11/15/19 04:15	1
Lead	ND		5.0		ug/L		11/13/19 16:53	11/15/19 04:15	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:22	1
Barium	**25**		10		ug/L		11/13/19 16:55	11/15/19 05:22	1
Boron	**680**		50		ug/L		11/13/19 16:55	11/15/19 05:22	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:22	1
Manganese	**18**		10		ug/L		11/13/19 16:55	11/15/19 05:22	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 05:22	1
Potassium	**14**		0.50		mg/L		11/13/19 16:55	11/15/19 05:22	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:22	1
Sodium	**42**		1.0		mg/L		11/13/19 16:55	11/15/19 05:22	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/13/19 11:15	11/14/19 09:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**700**		10		mg/L			11/13/19 01:41	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:03	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**200**		20		mg/L			11/14/19 23:12	100
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**4.8**		2.0		mg/L			11/14/19 15:03	1
Fluoride	**0.30**		0.10		mg/L			11/22/19 22:26	1
Ammonia	**0.87**		0.20		mg/L		11/24/19 15:00	11/25/19 08:57	1
DOC Dup	**1.5**		1.0		mg/L			11/12/19 21:14	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**106.85**				ft			11/07/19 09:23	1
Depth to Water (ft from MP)	**109.60**				ft			11/07/19 09:23	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G48D
Date Collected: 11/07/19 09:23
Date Received: 11/07/19 15:27

Lab Sample ID: 500-172766-12
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	620.98				ft			11/07/19 09:23	1
Field pH	7.22				SU			11/07/19 09:23	1
Field Temperature	50.0				Degrees F			11/07/19 09:23	1
Ground Water Elevation	511.38				ft			11/07/19 09:23	1
Specific Conductance	903				umhos/cm			11/07/19 09:23	1
Well bottom elevation	393.11				ft			11/07/19 09:23	1

Client Sample ID: G48S

Date Collected: 11/07/19 10:41
Date Received: 11/07/19 15:27

Lab Sample ID: 500-172766-13

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/08/19 08:19	11/20/19 20:12	1
Fluoranthene	ND		0.78		ug/L		11/08/19 08:19	11/20/19 20:12	1
Pyrene	ND		0.78		ug/L		11/08/19 08:19	11/20/19 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*87*		*36 - 120*	*11/08/19 08:19*	*11/20/19 20:12*	*1*
2-Fluorobiphenyl (Surr)	*91*		*34 - 110*	*11/08/19 08:19*	*11/20/19 20:12*	*1*
Terphenyl-d14 (Surr)	*124*		*40 - 145*	*11/08/19 08:19*	*11/20/19 20:12*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**27**		10		ug/L		11/13/19 16:53	11/15/19 04:19	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:19	1
Iron	ND		200		ug/L		11/13/19 16:53	11/15/19 04:19	1
Lead	ND		5.0		ug/L		11/13/19 16:53	11/15/19 04:19	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**12**		10		ug/L		11/13/19 16:55	11/15/19 05:26	1
Barium	**22**		10		ug/L		11/13/19 16:55	11/15/19 05:26	1
Boron	**5800**		50		ug/L		11/13/19 16:55	11/15/19 05:26	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:26	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 05:26	1
Molybdenum	**590**		10		ug/L		11/13/19 16:55	11/15/19 05:26	1
Potassium	**13**		0.50		mg/L		11/13/19 16:55	11/15/19 05:26	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:26	1
Sodium	**280**		1.0		mg/L		11/13/19 16:55	11/15/19 05:26	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/13/19 11:15	11/14/19 09:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			11/13/19 01:46	1
Nitrogen, Nitrate	**0.33**		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**380**		20		mg/L			11/14/19 23:24	100
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**100**		10		mg/L			11/14/19 15:32	5
Fluoride	**0.89**		0.10		mg/L			11/22/19 22:31	1
Ammonia	**2.6**		0.20		mg/L		11/24/19 15:00	11/25/19 09:05	1
DOC Dup	**2.6**		1.0		mg/L			11/12/19 21:31	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**94.78**				ft			11/07/19 10:41	1
Depth to Water (ft from MP)	**97.23**				ft			11/07/19 10:41	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G48S
Date Collected: 11/07/19 10:41
Date Received: 11/07/19 15:27

Lab Sample ID: 500-172766-13
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	620.78				ft			11/07/19 10:41	1
Field pH	7.83				SU			11/07/19 10:41	1
Field Temperature	51.4				Degrees F			11/07/19 10:41	1
Ground Water Elevation	523.55				ft			11/07/19 10:41	1
Specific Conductance	1340				umhos/cm			11/07/19 10:41	1
Well bottom elevation	468.32				ft			11/07/19 10:41	1

Client Sample ID: G47S
Lab Sample ID: 500-172766-14

Date Collected: 11/07/19 13:00
Matrix: Water
Date Received: 11/07/19 15:27

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/08/19 08:19	11/20/19 20:42	1
Fluoranthene	ND		0.80		ug/L		11/08/19 08:19	11/20/19 20:42	1
Pyrene	ND		0.80		ug/L		11/08/19 08:19	11/20/19 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*79*		*36 - 120*	*11/08/19 08:19*	*11/20/19 20:42*	*1*
2-Fluorobiphenyl (Surr)	*84*		*34 - 110*	*11/08/19 08:19*	*11/20/19 20:42*	*1*
Terphenyl-d14 (Surr)	*116*		*40 - 145*	*11/08/19 08:19*	*11/20/19 20:42*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**17**		10		ug/L		11/13/19 16:53	11/15/19 04:23	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:23	1
Iron	ND		200		ug/L		11/13/19 16:53	11/15/19 04:23	1
Lead	ND		5.0		ug/L		11/13/19 16:53	11/15/19 04:23	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**29**		10		ug/L		11/13/19 16:55	11/15/19 05:39	1
Barium	**16**		10		ug/L		11/13/19 16:55	11/15/19 05:39	1
Boron	**4300**		50		ug/L		11/13/19 16:55	11/15/19 05:39	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:39	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 05:39	1
Molybdenum	**380**		10		ug/L		11/13/19 16:55	11/15/19 05:39	1
Potassium	**14**		0.50		mg/L		11/13/19 16:55	11/15/19 05:39	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:39	1
Sodium	**330**		1.0		mg/L		11/13/19 16:55	11/15/19 05:39	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/13/19 11:15	11/14/19 09:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			11/13/19 01:49	1
Nitrogen, Nitrate	**2.1**		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**410**		20		mg/L			11/14/19 23:36	100
Nitrogen, Nitrate	**2.0**		0.10		mg/L			11/29/19 19:27	1
Chloride	**140**		10		mg/L			11/16/19 15:05	5
Fluoride	**0.55**		0.10		mg/L			11/22/19 22:35	1
Ammonia	ND		0.20		mg/L		11/24/19 15:00	11/25/19 09:08	1
DOC Dup	**2.1**		1.0		mg/L			11/12/19 21:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**87.05**				ft			11/07/19 13:00	1
Depth to Water (ft from MP)	**89.55**				ft			11/07/19 13:00	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G47S
Date Collected: 11/07/19 13:00
Date Received: 11/07/19 15:27

Lab Sample ID: 500-172766-14
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	612.10				ft			11/07/19 13:00	1
Field pH	8.39				SU			11/07/19 13:00	1
Field Temperature	50.9				Degrees F			11/07/19 13:00	1
Ground Water Elevation	522.55				ft			11/07/19 13:00	1
Specific Conductance	1481				umhos/cm			11/07/19 13:00	1
Well bottom elevation	459.84				ft			11/07/19 13:00	1

Client Sample ID: G47D
Date Collected: 11/07/19 14:00
Date Received: 11/07/19 15:27

Lab Sample ID: 500-172766-15
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.17		ug/L		11/08/19 08:19	11/20/19 21:11	1
Fluoranthene	ND		0.84		ug/L		11/08/19 08:19	11/20/19 21:11	1
Pyrene	ND		0.84		ug/L		11/08/19 08:19	11/20/19 21:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*36 - 120*	*11/08/19 08:19*	*11/20/19 21:11*	*1*
2-Fluorobiphenyl (Surr)	*84*		*34 - 110*	*11/08/19 08:19*	*11/20/19 21:11*	*1*
Terphenyl-d14 (Surr)	*118*		*40 - 145*	*11/08/19 08:19*	*11/20/19 21:11*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**35**		10		ug/L		11/13/19 16:53	11/15/19 04:27	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:27	1
Iron	**260**		200		ug/L		11/13/19 16:53	11/15/19 04:27	1
Lead	ND		5.0		ug/L		11/13/19 16:53	11/15/19 04:27	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:43	1
Barium	**34**		10		ug/L		11/13/19 16:55	11/15/19 05:43	1
Boron	**660**		50		ug/L		11/13/19 16:55	11/15/19 05:43	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:43	1
Manganese	**24**		10		ug/L		11/13/19 16:55	11/15/19 05:43	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 05:43	1
Potassium	**13**		0.50		mg/L		11/13/19 16:55	11/15/19 05:43	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:43	1
Sodium	**58**		1.0		mg/L		11/13/19 16:55	11/15/19 05:43	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/13/19 11:15	11/14/19 09:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**480**		10		mg/L			11/13/19 01:52	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**110**		5.0		mg/L			11/14/19 23:48	25
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**7.3**		2.0		mg/L			11/16/19 14:40	1
Fluoride	**0.36**		0.10		mg/L			11/22/19 22:38	1
Ammonia	**1.1**		0.20		mg/L		11/24/19 15:00	11/25/19 09:11	1
DOC Dup	**1.5**		1.0		mg/L			11/12/19 22:04	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**104.95**				ft			11/07/19 14:00	1
Depth to Water (ft from MP)	**107.40**				ft			11/07/19 14:00	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G47D
Date Collected: 11/07/19 14:00
Date Received: 11/07/19 15:27

Lab Sample ID: 500-172766-15
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	612.29				ft			11/07/19 14:00	1
Field pH	7.50				SU			11/07/19 14:00	1
Field Temperature	50.9				Degrees F			11/07/19 14:00	1
Ground Water Elevation	504.89				ft			11/07/19 14:00	1
Specific Conductance	732				umhos/cm			11/07/19 14:00	1
Well bottom elevation	384.69				ft			11/07/19 14:00	1

Client Sample ID: R08D
Date Collected: 11/11/19 10:56
Date Received: 11/11/19 15:44

Lab Sample ID: 500-172766-16
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/13/19 07:35	11/23/19 15:34	1
Fluoranthene	ND		0.76		ug/L		11/13/19 07:35	11/23/19 15:34	1
Pyrene	ND		0.76		ug/L		11/13/19 07:35	11/23/19 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*69*		*36 - 120*	*11/13/19 07:35*	*11/23/19 15:34*	*1*
2-Fluorobiphenyl (Surr)	*74*		*34 - 110*	*11/13/19 07:35*	*11/23/19 15:34*	*1*
Terphenyl-d14 (Surr)	*97*		*40 - 145*	*11/13/19 07:35*	*11/23/19 15:34*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**45**		10		ug/L		11/13/19 16:53	11/15/19 04:39	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:39	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:48	1
Barium	**45**		10		ug/L		11/13/19 16:55	11/15/19 05:48	1
Boron	**2800**		50		ug/L		11/13/19 16:55	11/15/19 05:48	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:48	1
Manganese	**11**		10		ug/L		11/13/19 16:55	11/15/19 05:48	1
Molybdenum	**330**		10		ug/L		11/13/19 16:55	11/15/19 05:48	1
Potassium	**17**		0.50		mg/L		11/13/19 16:55	11/15/19 05:48	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:48	1
Sodium	**150**		1.0		mg/L		11/13/19 16:55	11/15/19 05:48	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**780**		10		mg/L			11/13/19 01:54	1
Nitrogen, Nitrate	**0.66**		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**210**		20		mg/L			11/15/19 00:25	100
Nitrogen, Nitrate	**0.57**		0.10		mg/L			11/29/19 19:27	1
Chloride	**110**		10		mg/L			11/16/19 15:06	5
Fluoride	**0.65**		0.10		mg/L			11/22/19 22:43	1
Ammonia	**0.28**		0.20		mg/L		11/24/19 15:00	11/25/19 09:13	1
DOC Dup	**2.4**		1.0		mg/L			11/21/19 16:47	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**74.10**				ft			11/11/19 10:56	1
Depth to Water (ft from MP)	**76.76**				ft			11/11/19 10:56	1
Elevation of well (ft from MP)	**578.01**				ft			11/11/19 10:56	1
Field pH	**6.99**				SU			11/11/19 10:56	1
Field Temperature	**47.5**				Degrees F			11/11/19 10:56	1
Ground Water Elevation	**501.25**				ft			11/11/19 10:56	1
Specific Conductance	**1033**				umhos/cm			11/11/19 10:56	1
Well bottom elevation	**371.07**				ft			11/11/19 10:56	1

Client Sample ID: R08S
Lab Sample ID: 500-172766-17

Date Collected: 11/11/19 12:30
Matrix: Water
Date Received: 11/11/19 15:44

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/13/19 07:35	11/23/19 15:56	1
Fluoranthene	ND		0.76		ug/L		11/13/19 07:35	11/23/19 15:56	1
Pyrene	ND		0.76		ug/L		11/13/19 07:35	11/23/19 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*36 - 120*	*11/13/19 07:35*	*11/23/19 15:56*	*1*
2-Fluorobiphenyl (Surr)	*77*		*34 - 110*	*11/13/19 07:35*	*11/23/19 15:56*	*1*
Terphenyl-d14 (Surr)	*102*		*40 - 145*	*11/13/19 07:35*	*11/23/19 15:56*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**45**		10		ug/L		11/13/19 16:53	11/15/19 04:44	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:44	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:52	1
Barium	**44**		10		ug/L		11/13/19 16:55	11/15/19 05:52	1
Boron	**6400**		50		ug/L		11/13/19 16:55	11/15/19 05:52	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:52	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 05:52	1
Molybdenum	**340**		10		ug/L		11/13/19 16:55	11/15/19 05:52	1
Potassium	**24**		0.50		mg/L		11/13/19 16:55	11/15/19 05:52	1
Selenium	**13**		10		ug/L		11/13/19 16:55	11/15/19 05:52	1
Sodium	**51**		1.0		mg/L		11/13/19 16:55	11/15/19 05:52	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**730**		10		mg/L			11/13/19 01:57	1
Nitrogen, Nitrate	**0.19**		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**360**		20		mg/L			11/15/19 00:38	100
Nitrogen, Nitrate	**0.20**		0.10		mg/L			11/29/19 19:27	1
Chloride	**84**		10		mg/L			11/14/19 15:32	5
Fluoride	**0.15**		0.10		mg/L			11/22/19 22:47	1
Ammonia	ND		0.20		mg/L		11/24/19 15:00	11/25/19 09:16	1
DOC Dup	**1.6**		1.0		mg/L			11/21/19 17:23	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**62.06**				ft			11/11/19 12:30	1
Depth to Water (ft from MP)	**64.61**				ft			11/11/19 12:30	1
Elevation of well (ft from MP)	**578.62**				ft			11/11/19 12:30	1
Field pH	**7.91**				SU			11/11/19 12:30	1
Field Temperature	**50.0**				Degrees F			11/11/19 12:30	1
Ground Water Elevation	**514.01**				ft			11/11/19 12:30	1
Specific Conductance	**939**				umhos/cm			11/11/19 12:30	1
Well bottom elevation	**453.08**				ft			11/11/19 12:30	1

Client Sample ID: G39S
Lab Sample ID: 500-172766-18

Date Collected: 11/11/19 14:13
Matrix: Water
Date Received: 11/11/19 15:44

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/13/19 07:35	11/23/19 16:19	1
Fluoranthene	ND		0.81		ug/L		11/13/19 07:35	11/23/19 16:19	1
Pyrene	ND		0.81		ug/L		11/13/19 07:35	11/23/19 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*72*		*36 - 120*	*11/13/19 07:35*	*11/23/19 16:19*	*1*
2-Fluorobiphenyl (Surr)	*79*		*34 - 110*	*11/13/19 07:35*	*11/23/19 16:19*	*1*
Terphenyl-d14 (Surr)	*88*		*40 - 145*	*11/13/19 07:35*	*11/23/19 16:19*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**43**		10		ug/L		11/13/19 16:53	11/15/19 04:48	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:48	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 05:57	1
Barium	**32**		10		ug/L		11/13/19 16:55	11/15/19 05:57	1
Boron	**250**		50		ug/L		11/13/19 16:55	11/15/19 05:57	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 05:57	1
Manganese	**11**		10		ug/L		11/13/19 16:55	11/15/19 05:57	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 05:57	1
Potassium	**3.6**		0.50		mg/L		11/13/19 16:55	11/15/19 05:57	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 05:57	1
Sodium	**8.1**		1.0		mg/L		11/13/19 16:55	11/15/19 05:57	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 05:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**450**		10		mg/L			11/13/19 01:59	1
Nitrogen, Nitrate	**0.10**		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**73**		5.0		mg/L			11/15/19 00:50	25
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**11**		2.0		mg/L			11/14/19 15:06	1
Fluoride	**0.23**		0.10		mg/L			11/22/19 22:52	1
Ammonia	**0.30**		0.20		mg/L		11/20/19 12:40	11/20/19 16:41	1
DOC Dup	**1.5**		1.0		mg/L			11/21/19 17:40	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**89.44**				ft			11/11/19 14:13	1
Depth to Water (ft from MP)	**91.52**				ft			11/11/19 14:13	1
Elevation of well (ft from MP)	**598.85**				ft			11/11/19 14:13	1
Field pH	**7.78**				SU			11/11/19 14:13	1
Field Temperature	**37.0**				Degrees F			11/11/19 14:13	1
Ground Water Elevation	**507.33**				ft			11/11/19 14:13	1
Specific Conductance	**765**				umhos/cm			11/11/19 14:13	1
Well bottom elevation	**454.15**				ft			11/11/19 14:13	1

Client Sample ID: G44S
Lab Sample ID: 500-172766-19

Date Collected: 11/12/19 13:30
Matrix: Water
Date Received: 11/12/19 15:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/13/19 07:35	11/23/19 16:42	1
Fluoranthene	ND		0.77		ug/L		11/13/19 07:35	11/23/19 16:42	1
Pyrene	ND		0.77		ug/L		11/13/19 07:35	11/23/19 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*71*		*36 - 120*	*11/13/19 07:35*	*11/23/19 16:42*	*1*
2-Fluorobiphenyl (Surr)	*79*		*34 - 110*	*11/13/19 07:35*	*11/23/19 16:42*	*1*
Terphenyl-d14 (Surr)	*99*		*40 - 145*	*11/13/19 07:35*	*11/23/19 16:42*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 06:01	1
Barium	**65**		10		ug/L		11/13/19 16:55	11/15/19 06:01	1
Boron	**1300**		50		ug/L		11/13/19 16:55	11/15/19 06:01	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 06:01	1
Manganese	**34**		10		ug/L		11/13/19 16:55	11/15/19 06:01	1
Molybdenum	**200**		10		ug/L		11/13/19 16:55	11/15/19 06:01	1
Potassium	**6.2**		0.50		mg/L		11/13/19 16:55	11/15/19 06:01	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 06:01	1
Sodium	**24**		1.0		mg/L		11/13/19 16:55	11/15/19 06:01	1
Zinc	**85**		20		ug/L		11/13/19 16:55	11/15/19 06:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**62**		10		ug/L		11/13/19 16:53	11/15/19 04:52	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**670**		10		mg/L			11/13/19 02:02	1
Nitrogen, Nitrate	**0.12**		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**160**		5.0		mg/L			11/15/19 01:02	25
Nitrogen, Nitrate	**0.12**		0.10		mg/L			11/29/19 19:27	1
Chloride	**53**		2.0		mg/L			11/16/19 14:44	1
Fluoride	**0.21**		0.10		mg/L			11/22/19 23:06	1
Ammonia	**0.21**		0.20		mg/L		11/24/19 15:00	11/25/19 09:19	1
DOC Dup	**1.8**		1.0		mg/L			11/21/19 18:16	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**76.25**				ft			11/12/19 13:30	1
Depth to Water (ft from MP)	**78.43**				ft			11/12/19 13:30	1
Elevation of well (ft from MP)	**586.53**				ft			11/12/19 13:30	1
Field pH	**7.22**				SU			11/12/19 13:30	1
Field Temperature	**49.5**				Degrees F			11/12/19 13:30	1
Ground Water Elevation	**508.10**				ft			11/12/19 13:30	1
Specific Conductance	**932**				umhos/cm			11/12/19 13:30	1
Well bottom elevation	**455.11**				ft			11/12/19 13:30	1

Client Sample ID: G44D
Lab Sample ID: 500-172766-20

Date Collected: 11/12/19 14:19
Matrix: Water
Date Received: 11/12/19 15:25

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/13/19 07:35	11/23/19 17:05	1
Fluoranthene	ND		0.76		ug/L		11/13/19 07:35	11/23/19 17:05	1
Pyrene	ND		0.76		ug/L		11/13/19 07:35	11/23/19 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*36 - 120*	*11/13/19 07:35*	*11/23/19 17:05*	*1*
2-Fluorobiphenyl (Surr)	*68*		*34 - 110*	*11/13/19 07:35*	*11/23/19 17:05*	*1*
Terphenyl-d14 (Surr)	*89*		*40 - 145*	*11/13/19 07:35*	*11/23/19 17:05*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 06:05	1
Barium	**45**		10		ug/L		11/13/19 16:55	11/15/19 06:05	1
Boron	**1500**		50		ug/L		11/13/19 16:55	11/15/19 06:05	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 06:05	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 06:05	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 06:05	1
Potassium	**18**		0.50		mg/L		11/13/19 16:55	11/15/19 06:05	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 06:05	1
Sodium	**95**		1.0		mg/L		11/13/19 16:55	11/15/19 06:05	1
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 06:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**47**		10		ug/L		11/13/19 16:53	11/15/19 04:56	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 04:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**550**		10		mg/L			11/13/19 02:04	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**140**		5.0		mg/L			11/15/19 01:14	25
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**7.2**		2.0		mg/L			11/16/19 14:45	1
Fluoride	**1.0**		0.10		mg/L			11/22/19 23:09	1
Ammonia	**0.60**		0.20		mg/L		11/24/19 15:00	11/25/19 09:21	1
DOC Dup	**1.3**		1.0		mg/L			11/21/19 18:32	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**86.66**				ft			11/12/19 14:19	1
Depth to Water (ft from MP)	**88.70**				ft			11/12/19 14:19	1
Elevation of well (ft from MP)	**586.65**				ft			11/12/19 14:19	1
Field pH	**7.36**				SU			11/12/19 14:19	1
Field Temperature	**52.2**				Degrees F			11/12/19 14:19	1
Ground Water Elevation	**497.95**				ft			11/12/19 14:19	1
Specific Conductance	**793**				umhos/cm			11/12/19 14:19	1
Well bottom elevation	**377.81**				ft			11/12/19 14:19	1

Client Sample ID: G46D
Date Collected: 11/13/19 10:20
Date Received: 11/13/19 15:22

Lab Sample ID: 500-172766-21
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/14/19 07:46	11/26/19 14:29	1
Fluoranthene	ND		0.76		ug/L		11/14/19 07:46	11/26/19 14:29	1
Pyrene	ND		0.76		ug/L		11/14/19 07:46	11/26/19 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*36 - 120*	*11/14/19 07:46*	*11/26/19 14:29*	*1*
2-Fluorobiphenyl (Surr)	*58*		*34 - 110*	*11/14/19 07:46*	*11/26/19 14:29*	*1*
Terphenyl-d14 (Surr)	*84*		*40 - 145*	*11/14/19 07:46*	*11/26/19 14:29*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/24/19 17:57	11/25/19 21:01	1
Barium	**24**		10		ug/L		11/24/19 17:57	11/25/19 21:01	1
Boron	**920**		50		ug/L		11/24/19 17:57	11/26/19 12:00	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 21:01	1
Manganese	ND		10		ug/L		11/24/19 17:57	11/25/19 21:01	1
Molybdenum	ND		10		ug/L		11/24/19 17:57	11/25/19 21:01	1
Potassium	**15**		0.50		mg/L		11/24/19 17:57	11/26/19 12:00	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 12:00	1
Sodium	**66**		1.0		mg/L		11/24/19 17:57	11/26/19 12:00	1
Zinc	ND	^	20		ug/L		11/24/19 17:57	11/25/19 21:01	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**24**		10		ug/L		11/24/19 17:57	11/25/19 20:57	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 20:57	1
Iron	ND	^	200		ug/L		11/24/19 17:57	11/25/19 20:57	1
Lead	ND		5.0		ug/L		11/24/19 17:57	11/25/19 20:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/19/19 10:10	11/20/19 09:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**570**		10		mg/L			11/19/19 22:32	1
Nitrogen, Nitrate	**0.23**		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**130**		5.0		mg/L			11/15/19 01:27	20
Nitrogen, Nitrate	**0.22**		0.10		mg/L			11/29/19 19:27	1
Chloride	**5.7**		2.0		mg/L			11/16/19 14:45	1
Fluoride	**0.54**		0.10		mg/L			11/22/19 23:12	1
Ammonia	**0.25**		0.20		mg/L		11/24/19 15:00	11/25/19 09:24	1
DOC Dup	**1.7**		1.0		mg/L			11/21/19 18:49	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**99.00**				ft			11/13/19 10:20	1
Depth to Water (ft from MP)	**101.60**				ft			11/13/19 10:20	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G46D
Date Collected: 11/13/19 10:20
Date Received: 11/13/19 15:22

Lab Sample ID: 500-172766-21
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	601.25				ft			11/13/19 10:20	1
Field pH	7.42				SU			11/13/19 10:20	1
Field Temperature	46.2				Degrees F			11/13/19 10:20	1
Ground Water Elevation	499.65				ft			11/13/19 10:20	1
Specific Conductance	754				umhos/cm			11/13/19 10:20	1
Well bottom elevation	373.79				ft			11/13/19 10:20	1

Client Sample ID: G46S
Date Collected: 11/13/19 11:42
Date Received: 11/13/19 15:22

Lab Sample ID: 500-172766-22
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/14/19 07:46	11/26/19 14:56	1
Fluoranthene	ND		0.75		ug/L		11/14/19 07:46	11/26/19 14:56	1
Pyrene	ND		0.75		ug/L		11/14/19 07:46	11/26/19 14:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*36 - 120*	*11/14/19 07:46*	*11/26/19 14:56*	*1*
2-Fluorobiphenyl (Surr)	*76*		*34 - 110*	*11/14/19 07:46*	*11/26/19 14:56*	*1*
Terphenyl-d14 (Surr)	*89*		*40 - 145*	*11/14/19 07:46*	*11/26/19 14:56*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		50		ug/L		11/24/19 17:57	11/26/19 12:13	5
Barium	**35**		10		ug/L		11/24/19 17:57	11/25/19 21:10	1
Boron	**10000**		50		ug/L		11/24/19 17:57	11/26/19 12:08	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 21:10	1
Manganese	**30**		10		ug/L		11/24/19 17:57	11/25/19 21:10	1
Molybdenum	**1600**		50		ug/L		11/24/19 17:57	11/26/19 12:13	5
Potassium	**32**		0.50		mg/L		11/24/19 17:57	11/26/19 12:08	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 12:08	1
Sodium	**160**		1.0		mg/L		11/24/19 17:57	11/26/19 12:08	1
Zinc	ND	^	20		ug/L		11/24/19 17:57	11/25/19 21:10	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**41**		10		ug/L		11/24/19 17:57	11/25/19 21:05	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 21:05	1
Iron	**4100**		200		ug/L		11/24/19 17:57	11/26/19 12:04	1
Lead	ND		5.0		ug/L		11/24/19 17:57	11/25/19 21:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/19/19 10:10	11/20/19 09:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1000**		10		mg/L			11/19/19 22:34	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**470**		20		mg/L			11/15/19 15:45	100
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**68**		2.0		mg/L			11/16/19 14:46	1
Fluoride	**0.31**		0.10		mg/L			11/22/19 23:16	1
Ammonia	**2.3**		0.20		mg/L		11/24/19 15:00	11/25/19 09:27	1
DOC Dup	**2.1**		1.0		mg/L			11/21/19 19:05	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**94.90**				ft			11/13/19 11:42	1
Depth to Water (ft from MP)	**97.60**				ft			11/13/19 11:42	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G46S
Date Collected: 11/13/19 11:42
Date Received: 11/13/19 15:22

Lab Sample ID: 500-172766-22
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	601.43				ft			11/13/19 11:42	1
Field pH	7.68				SU			11/13/19 11:42	1
Field Temperature	51.3				Degrees F			11/13/19 11:42	1
Ground Water Elevation	503.83				ft			11/13/19 11:42	1
Specific Conductance	1199				umhos/cm			11/13/19 11:42	1
Well bottom elevation	453.62				ft			11/13/19 11:42	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G31D

Date Collected: 11/13/19 13:11
Date Received: 11/13/19 15:22

Lab Sample ID: 500-172766-23

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/14/19 07:46	11/26/19 15:23	1
Fluoranthene	ND		0.80		ug/L		11/14/19 07:46	11/26/19 15:23	1
Pyrene	ND		0.80		ug/L		11/14/19 07:46	11/26/19 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*36 - 120*	*11/14/19 07:46*	*11/26/19 15:23*	*1*
2-Fluorobiphenyl (Surr)	*72*		*34 - 110*	*11/14/19 07:46*	*11/26/19 15:23*	*1*
Terphenyl-d14 (Surr)	*86*		*40 - 145*	*11/14/19 07:46*	*11/26/19 15:23*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/24/19 17:57	11/25/19 21:18	1
Barium	**16**		10		ug/L		11/24/19 17:57	11/25/19 21:18	1
Boron	**1900**		50		ug/L		11/24/19 17:57	11/26/19 12:17	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 21:18	1
Manganese	ND		10		ug/L		11/24/19 17:57	11/25/19 21:18	1
Molybdenum	ND		10		ug/L		11/24/19 17:57	11/25/19 21:18	1
Potassium	**7.8**		0.50		mg/L		11/24/19 17:57	11/26/19 12:17	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 12:17	1
Sodium	**220**		1.0		mg/L		11/24/19 17:57	11/26/19 12:17	1
Zinc	**38**		20		ug/L		11/24/19 17:57	11/26/19 12:17	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**16**		10		ug/L		11/24/19 17:57	11/25/19 21:14	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 21:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**520**		10		mg/L			11/19/19 22:37	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		5.0		mg/L			11/15/19 15:57	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**15**		2.0		mg/L			11/16/19 14:46	1
Fluoride	**4.0**		0.10		mg/L			11/22/19 23:23	1
Ammonia	**0.57**		0.20		mg/L		11/24/19 15:00	11/25/19 09:29	1
DOC Dup	**1.2**		1.0		mg/L			11/21/19 19:22	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**33.56**				ft			11/13/19 13:11	1
Depth to Water (ft from MP)	**36.12**				ft			11/13/19 13:11	1
Elevation of well (ft from MP)	**535.61**				ft			11/13/19 13:11	1
Field pH	**8.13**				SU			11/13/19 13:11	1
Field Temperature	**49.5**				Degrees F			11/13/19 13:11	1
Ground Water Elevation	**499.49**				ft			11/13/19 13:11	1
Specific Conductance	**750**				umhos/cm			11/13/19 13:11	1
Well bottom elevation	**378.23**				ft			11/13/19 13:11	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G31S

Date Collected: 11/13/19 14:14
Date Received: 11/13/19 15:22

Lab Sample ID: 500-172766-24

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/14/19 07:46	11/26/19 15:50	1
Fluoranthene	ND		0.76		ug/L		11/14/19 07:46	11/26/19 15:50	1
Pyrene	ND		0.76		ug/L		11/14/19 07:46	11/26/19 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*36 - 120*	*11/14/19 07:46*	*11/26/19 15:50*	*1*
2-Fluorobiphenyl (Surr)	*73*		*34 - 110*	*11/14/19 07:46*	*11/26/19 15:50*	*1*
Terphenyl-d14 (Surr)	*88*		*40 - 145*	*11/14/19 07:46*	*11/26/19 15:50*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/24/19 17:57	11/25/19 21:34	1
Barium	**49**		10		ug/L		11/24/19 17:57	11/25/19 21:34	1
Boron	**4400**		50		ug/L		11/24/19 17:57	11/26/19 12:30	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 21:34	1
Manganese	**25**		10		ug/L		11/24/19 17:57	11/25/19 21:34	1
Molybdenum	**700**		10		ug/L		11/24/19 17:57	11/25/19 21:34	1
Potassium	**20**		0.50		mg/L		11/24/19 17:57	11/26/19 12:30	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 12:30	1
Sodium	**150**		1.0		mg/L		11/24/19 17:57	11/26/19 12:30	1
Zinc	ND	^	20		ug/L		11/24/19 17:57	11/25/19 21:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**50**		10		ug/L		11/24/19 17:57	11/25/19 21:22	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 21:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**1100**		10		mg/L			11/19/19 22:39	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**380**		20		mg/L			11/15/19 16:34	100
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**210**		10		mg/L			11/27/19 12:37	5
Fluoride	**0.25**		0.10		mg/L			11/22/19 23:30	1
Ammonia	**0.53**		0.20		mg/L		11/24/19 15:00	11/25/19 09:37	1
DOC Dup	**1.4**		1.0		mg/L			11/21/19 19:38	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**22.93**				ft			11/13/19 14:14	1
Depth to Water (ft from MP)	**25.51**				ft			11/13/19 14:14	1
Elevation of well (ft from MP)	**535.78**				ft			11/13/19 14:14	1
Field pH	**7.40**				SU			11/13/19 14:14	1
Field Temperature	**53.2**				Degrees F			11/13/19 14:14	1
Ground Water Elevation	**510.27**				ft			11/13/19 14:14	1
Specific Conductance	**1510**				umhos/cm			11/13/19 14:14	1
Well bottom elevation	**453.36**				ft			11/13/19 14:14	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: S501
Date Collected: 11/14/19 08:55
Date Received: 11/14/19 13:40

Lab Sample ID: 500-172766-25
Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	0				SU			11/14/19 08:55	1
Field Temperature	0				Degrees F			11/14/19 08:55	1
Specific Conductance	0				umhos/cm			11/14/19 08:55	1

Client Sample Results

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: P40S

Date Collected: 11/14/19 09:10
Date Received: 11/14/19 13:40

Lab Sample ID: 500-172766-26

Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	55.32				ft			11/14/19 09:10	1
Depth to Water (ft from MP)	57.10				ft			11/14/19 09:10	1
Elevation of well (ft from MP)	599.12				ft			11/14/19 09:10	1
Ground Water Elevation	542.02				ft			11/14/19 09:10	1
Well bottom elevation	474.84				ft			11/14/19 09:10	1

Client Sample ID: G45S
Lab Sample ID: 500-172766-27

Date Collected: 11/14/19 09:51
Matrix: Water
Date Received: 11/14/19 13:40

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/15/19 07:35	11/26/19 19:04	1
Fluoranthene	ND		0.76		ug/L		11/15/19 07:35	11/26/19 19:04	1
Pyrene	ND		0.76		ug/L		11/15/19 07:35	11/26/19 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*57*		*36 - 120*	*11/15/19 07:35*	*11/26/19 19:04*	*1*
2-Fluorobiphenyl (Surr)	*64*		*34 - 110*	*11/15/19 07:35*	*11/26/19 19:04*	*1*
Terphenyl-d14 (Surr)	*90*		*40 - 145*	*11/15/19 07:35*	*11/26/19 19:04*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/24/19 17:57	11/25/19 21:42	1
Barium	**42**		10		ug/L		11/24/19 17:57	11/25/19 21:42	1
Boron	**480**		50		ug/L		11/24/19 17:57	11/26/19 12:34	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 21:42	1
Manganese	**14**		10		ug/L		11/24/19 17:57	11/25/19 21:42	1
Molybdenum	ND		10		ug/L		11/24/19 17:57	11/25/19 21:42	1
Potassium	**10**		0.50		mg/L		11/24/19 17:57	11/26/19 12:34	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 12:34	1
Sodium	**50**		1.0		mg/L		11/24/19 17:57	11/26/19 12:34	1
Zinc	ND	^	20		ug/L		11/24/19 17:57	11/25/19 21:42	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**43**		10		ug/L		11/24/19 17:57	11/25/19 21:38	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 21:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**830**		10		mg/L			11/21/19 03:30	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**170**		10		mg/L			11/29/19 15:52	50
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**170**		10		mg/L			11/27/19 12:39	5
Fluoride	**0.33**		0.10		mg/L			11/22/19 23:34	1
Ammonia	**0.58**		0.20		mg/L		11/25/19 09:35	11/25/19 13:38	1
DOC Dup	**4.2**		1.0		mg/L			11/21/19 19:55	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**58.58**				ft			11/14/19 09:51	1
Depth to Water (ft from MP)	**61.55**				ft			11/14/19 09:51	1
Elevation of well (ft from MP)	**603.90**				ft			11/14/19 09:51	1
Field pH	**7.33**				SU			11/14/19 09:51	1
Field Temperature	**54.0**				Degrees F			11/14/19 09:51	1
Ground Water Elevation	**542.35**				ft			11/14/19 09:51	1
Specific Conductance	**1043**				umhos/cm			11/14/19 09:51	1
Well bottom elevation	**471.05**				ft			11/14/19 09:51	1

Client Sample ID: G38D
Date Collected: 11/14/19 11:26
Date Received: 11/14/19 13:40

Lab Sample ID: 500-172766-28
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/15/19 07:35	11/26/19 19:28	1
Fluoranthene	ND		0.77		ug/L		11/15/19 07:35	11/26/19 19:28	1
Pyrene	ND		0.77		ug/L		11/15/19 07:35	11/26/19 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*74*		*36 - 120*	*11/15/19 07:35*	*11/26/19 19:28*	*1*
2-Fluorobiphenyl (Surr)	*82*		*34 - 110*	*11/15/19 07:35*	*11/26/19 19:28*	*1*
Terphenyl-d14 (Surr)	*95*		*40 - 145*	*11/15/19 07:35*	*11/26/19 19:28*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/24/19 17:57	11/25/19 21:51	1
Barium	**25**		10		ug/L		11/24/19 17:57	11/25/19 21:51	1
Boron	**800**		50		ug/L		11/24/19 17:57	11/26/19 12:39	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 21:51	1
Manganese	**26**		10		ug/L		11/24/19 17:57	11/25/19 21:51	1
Molybdenum	ND		10		ug/L		11/24/19 17:57	11/25/19 21:51	1
Potassium	**13**		0.50		mg/L		11/24/19 17:57	11/26/19 12:39	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 12:39	1
Sodium	**61**		1.0		mg/L		11/24/19 17:57	11/26/19 12:39	1
Zinc	ND	^	20		ug/L		11/24/19 17:57	11/25/19 21:51	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**24**		10		ug/L		11/24/19 17:57	11/25/19 21:46	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 21:46	1
Iron	ND	^	200		ug/L		11/24/19 17:57	11/25/19 21:46	1
Lead	ND		5.0		ug/L		11/24/19 17:57	11/25/19 21:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/19/19 10:10	11/20/19 09:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**570**		10		mg/L			11/21/19 03:35	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**130**		5.0		mg/L			11/29/19 16:05	25
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**5.5**		2.0		mg/L			11/27/19 12:40	1
Fluoride	**0.40**		0.10		mg/L			11/16/19 01:05	1
Ammonia	**0.64**		0.20		mg/L		11/25/19 09:35	11/25/19 13:40	1
DOC Dup	**1.6**		1.0		mg/L			11/21/19 20:11	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**105.55**				ft			11/14/19 11:26	1
Depth to Water (ft from MP)	**107.66**				ft			11/14/19 11:26	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G38D
Date Collected: 11/14/19 11:26
Date Received: 11/14/19 13:40

Lab Sample ID: 500-172766-28
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	610.67				ft			11/14/19 11:26	1
Field pH	7.28				SU			11/14/19 11:26	1
Field Temperature	54.7				Degrees F			11/14/19 11:26	1
Ground Water Elevation	503.01				ft			11/14/19 11:26	1
Specific Conductance	743				umhos/cm			11/14/19 11:26	1
Well bottom elevation	382.38				ft			11/14/19 11:26	1

Client Sample ID: G38S
Date Collected: 11/14/19 12:17
Date Received: 11/14/19 13:40

Lab Sample ID: 500-172766-29
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.15		ug/L		11/15/19 07:35	11/26/19 19:52	1
Fluoranthene	ND		0.75		ug/L		11/15/19 07:35	11/26/19 19:52	1
Pyrene	ND		0.75		ug/L		11/15/19 07:35	11/26/19 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*72*		*36 - 120*	*11/15/19 07:35*	*11/26/19 19:52*	*1*
2-Fluorobiphenyl (Surr)	*77*		*34 - 110*	*11/15/19 07:35*	*11/26/19 19:52*	*1*
Terphenyl-d14 (Surr)	*98*		*40 - 145*	*11/15/19 07:35*	*11/26/19 19:52*	*1*

Method: 6010B - Dissolved Metals - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/24/19 17:57	11/25/19 21:59	1
Barium	**44**		10		ug/L		11/24/19 17:57	11/25/19 21:59	1
Boron	**4400**		50		ug/L		11/24/19 17:57	11/26/19 12:43	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 21:59	1
Manganese	ND		10		ug/L		11/24/19 17:57	11/25/19 21:59	1
Molybdenum	**540**		10		ug/L		11/24/19 17:57	11/25/19 21:59	1
Potassium	**14**		0.50		mg/L		11/24/19 17:57	11/26/19 12:43	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 12:43	1
Sodium	**170**		1.0		mg/L		11/24/19 17:57	11/26/19 12:43	1
Zinc	ND	^	20		ug/L		11/24/19 17:57	11/25/19 21:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	**45**		10		ug/L		11/24/19 17:57	11/25/19 21:55	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 21:55	1
Iron	ND	^	200		ug/L		11/24/19 17:57	11/25/19 21:55	1
Lead	ND		5.0		ug/L		11/24/19 17:57	11/25/19 21:55	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/19/19 10:10	11/20/19 09:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**750**		10		mg/L			11/21/19 03:38	1
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:08	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	**370**		20		mg/L			11/29/19 16:17	100
Nitrogen, Nitrate	ND		0.10		mg/L			11/29/19 19:27	1
Chloride	**67**		2.0		mg/L			11/27/19 12:44	1
Fluoride	**0.23**		0.10		mg/L			11/22/19 23:38	1
Ammonia	ND		0.20		mg/L		11/25/19 09:35	11/25/19 12:31	1
DOC Dup	**1.9**		1.0		mg/L			11/21/19 20:28	1

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**84.87**				ft			11/14/19 12:17	1
Depth to Water (ft from MP)	**87.09**				ft			11/14/19 12:17	1

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Client Sample ID: G38S
Date Collected: 11/14/19 12:17
Date Received: 11/14/19 13:40

Lab Sample ID: 500-172766-29
Matrix: Water

Method: Field Sampling - Field Sampling (Continued)

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Elevation of well (ft from MP)	610.78				ft			11/14/19 12:17	1
Field pH	8.63				SU			11/14/19 12:17	1
Field Temperature	55.2				Degrees F			11/14/19 12:17	1
Ground Water Elevation	523.69				ft			11/14/19 12:17	1
Specific Conductance	941				umhos/cm			11/14/19 12:17	1
Well bottom elevation	457.57				ft			11/14/19 12:17	1

Definitions/Glossary

Client: Midwest Generation EME LLC
Job ID: 500-172766-1
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

GC/MS Semi VOA

Prep Batch: 513555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Total/NA	Water	3510C	
500-172766-2	G41S	Total/NA	Water	3510C	
500-172766-3	G33D	Total/NA	Water	3510C	
MB 500-513555/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-513555/2-A	Lab Control Sample	Total/NA	Water	3510C	

Prep Batch: 513702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-4	G42S	Total/NA	Water	3510C	
500-172766-5	G42D	Total/NA	Water	3510C	
500-172766-6	G33S	Total/NA	Water	3510C	
500-172766-7	G20S	Total/NA	Water	3510C	
500-172766-8	R16D	Total/NA	Water	3510C	
MB 500-513702/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-513702/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-513702/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 513740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-513555/1-A	Method Blank	Total/NA	Water	8270D	513555
LCS 500-513555/2-A	Lab Control Sample	Total/NA	Water	8270D	513555

Analysis Batch: 513803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Total/NA	Water	8270D	513555
500-172766-2	G41S	Total/NA	Water	8270D	513555
500-172766-3	G33D	Total/NA	Water	8270D	513555

Analysis Batch: 513975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-513702/1-A	Method Blank	Total/NA	Water	8270D	513702
LCS 500-513702/2-A	Lab Control Sample	Total/NA	Water	8270D	513702
LCSD 500-513702/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	513702

Prep Batch: 514198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-9	G30S	Total/NA	Water	3510C	
500-172766-10	G30D	Total/NA	Water	3510C	
500-172766-11	R32S	Total/NA	Water	3510C	
MB 500-514198/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-514198/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-514198/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 514313

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-12	G48D	Total/NA	Water	3510C	
500-172766-13	G48S	Total/NA	Water	3510C	
500-172766-14	G47S	Total/NA	Water	3510C	
500-172766-15	G47D	Total/NA	Water	3510C	
MB 500-514313/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-514313/2-A	Lab Control Sample	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 514313 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 500-514313/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 514832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-514198/1-A	Method Blank	Total/NA	Water	8270D	514198
MB 500-514313/1-A	Method Blank	Total/NA	Water	8270D	514313
LCS 500-514198/2-A	Lab Control Sample	Total/NA	Water	8270D	514198
LCS 500-514313/2-A	Lab Control Sample	Total/NA	Water	8270D	514313
LCSD 500-514198/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	514198
LCSD 500-514313/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	514313

Prep Batch: 515030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-16	R08D	Total/NA	Water	3510C	
500-172766-17	R08S	Total/NA	Water	3510C	
500-172766-18	G39S	Total/NA	Water	3510C	
500-172766-19	G44S	Total/NA	Water	3510C	
500-172766-20	G44D	Total/NA	Water	3510C	
MB 500-515030/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-515030/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-515030/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 515276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Total/NA	Water	3510C	
500-172766-22	G46S	Total/NA	Water	3510C	
500-172766-23	G31D	Total/NA	Water	3510C	
500-172766-24	G31S	Total/NA	Water	3510C	
MB 500-515276/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-515276/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-515276/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Prep Batch: 515510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-27	G45S	Total/NA	Water	3510C	
500-172766-28	G38D	Total/NA	Water	3510C	
500-172766-29	G38S	Total/NA	Water	3510C	
MB 500-515510/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-515510/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-515510/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 516000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-515030/1-A	Method Blank	Total/NA	Water	8270D	515030
LCS 500-515030/2-A	Lab Control Sample	Total/NA	Water	8270D	515030
LCSD 500-515030/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	515030

Analysis Batch: 516342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-4	G42S	Total/NA	Water	8270D	513702
500-172766-5	G42D	Total/NA	Water	8270D	513702

GC/MS Semi VOA (Continued)

Analysis Batch: 516342 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-6	G33S	Total/NA	Water	8270D	513702
500-172766-7	G20S	Total/NA	Water	8270D	513702
500-172766-8	R16D	Total/NA	Water	8270D	513702
500-172766-12	G48D	Total/NA	Water	8270D	514313
500-172766-13	G48S	Total/NA	Water	8270D	514313
500-172766-14	G47S	Total/NA	Water	8270D	514313
500-172766-15	G47D	Total/NA	Water	8270D	514313

Analysis Batch: 516976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-9	G30S	Total/NA	Water	8270D	514198
500-172766-10	G30D	Total/NA	Water	8270D	514198
500-172766-11	R32S	Total/NA	Water	8270D	514198
500-172766-16	R08D	Total/NA	Water	8270D	515030
500-172766-17	R08S	Total/NA	Water	8270D	515030
500-172766-18	G39S	Total/NA	Water	8270D	515030
500-172766-19	G44S	Total/NA	Water	8270D	515030
500-172766-20	G44D	Total/NA	Water	8270D	515030

Analysis Batch: 517373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Total/NA	Water	8270D	515276
500-172766-22	G46S	Total/NA	Water	8270D	515276
500-172766-23	G31D	Total/NA	Water	8270D	515276
500-172766-24	G31S	Total/NA	Water	8270D	515276
MB 500-515276/1-A	Method Blank	Total/NA	Water	8270D	515276
LCS 500-515276/2-A	Lab Control Sample	Total/NA	Water	8270D	515276
LCSD 500-515276/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	515276

Analysis Batch: 517460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-27	G45S	Total/NA	Water	8270D	515510
500-172766-28	G38D	Total/NA	Water	8270D	515510
500-172766-29	G38S	Total/NA	Water	8270D	515510

Analysis Batch: 517495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-515510/1-A	Method Blank	Total/NA	Water	8270D	515510
LCS 500-515510/2-A	Lab Control Sample	Total/NA	Water	8270D	515510
LCSD 500-515510/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	515510

Metals

Prep Batch: 515100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-12	G48D	Total/NA	Water	7470A	
500-172766-13	G48S	Total/NA	Water	7470A	
500-172766-14	G47S	Total/NA	Water	7470A	
500-172766-15	G47D	Total/NA	Water	7470A	
MB 500-515100/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-515100/13-A	Lab Control Sample	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 515100 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-12 MS	G48D	Total/NA	Water	7470A	
500-172766-12 MSD	G48D	Total/NA	Water	7470A	
500-172766-12 DU	G48D	Total/NA	Water	7470A	

Prep Batch: 515215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Total/NA	Water	3010A	
500-172766-2	G41S	Total/NA	Water	3010A	
500-172766-3	G33D	Total/NA	Water	3010A	
500-172766-4	G42S	Total/NA	Water	3010A	
500-172766-5	G42D	Total/NA	Water	3010A	
500-172766-6	G33S	Total/NA	Water	3010A	
500-172766-7	G20S	Total/NA	Water	3010A	
500-172766-8	R16D	Total/NA	Water	3010A	
500-172766-9	G30S	Total/NA	Water	3010A	
500-172766-10	G30D	Total/NA	Water	3010A	
500-172766-11	R32S	Total/NA	Water	3010A	
500-172766-12	G48D	Total/NA	Water	3010A	
500-172766-13	G48S	Total/NA	Water	3010A	
500-172766-14	G47S	Total/NA	Water	3010A	
500-172766-15	G47D	Total/NA	Water	3010A	
500-172766-16	R08D	Total/NA	Water	3010A	
500-172766-17	R08S	Total/NA	Water	3010A	
500-172766-18	G39S	Total/NA	Water	3010A	
500-172766-19	G44S	Total/NA	Water	3010A	
500-172766-20	G44D	Total/NA	Water	3010A	
MB 500-515215/1-A	Method Blank	Total/NA	Water	3010A	
LCS 500-515215/2-A	Lab Control Sample	Total/NA	Water	3010A	
500-172766-1 MS	G41D	Total/NA	Water	3010A	
500-172766-1 MSD	G41D	Total/NA	Water	3010A	
500-172766-1 DU	G41D	Total/NA	Water	3010A	

Prep Batch: 515216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	3010A	
500-172766-2	G41S	Dissolved	Water	3010A	
500-172766-3	G33D	Dissolved	Water	3010A	
500-172766-4	G42S	Dissolved	Water	3010A	
500-172766-5	G42D	Dissolved	Water	3010A	
500-172766-6	G33S	Dissolved	Water	3010A	
500-172766-7	G20S	Dissolved	Water	3010A	
500-172766-8	R16D	Dissolved	Water	3010A	
500-172766-9	G30S	Dissolved	Water	3010A	
500-172766-10	G30D	Dissolved	Water	3010A	
500-172766-11	R32S	Dissolved	Water	3010A	
500-172766-12	G48D	Dissolved	Water	3010A	
500-172766-13	G48S	Dissolved	Water	3010A	
500-172766-14	G47S	Dissolved	Water	3010A	
500-172766-15	G47D	Dissolved	Water	3010A	
500-172766-16	R08D	Dissolved	Water	3010A	
500-172766-17	R08S	Dissolved	Water	3010A	

Metals (Continued)

Prep Batch: 515216 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-18	G39S	Dissolved	Water	3010A	
500-172766-19	G44S	Dissolved	Water	3010A	
500-172766-20	G44D	Dissolved	Water	3010A	
MB 500-515216/1-A	Method Blank	Total/NA	Water	3010A	
LCS 500-515216/2-A	Lab Control Sample	Total/NA	Water	3010A	
500-172766-20 MS	G44D	Dissolved	Water	3010A	
500-172766-20 MSD	G44D	Dissolved	Water	3010A	
500-172766-20 DU	G44D	Dissolved	Water	3010A	

Analysis Batch: 515371

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-12	G48D	Total/NA	Water	7470A	515100
500-172766-13	G48S	Total/NA	Water	7470A	515100
500-172766-14	G47S	Total/NA	Water	7470A	515100
500-172766-15	G47D	Total/NA	Water	7470A	515100
MB 500-515100/12-A	Method Blank	Total/NA	Water	7470A	515100
LCS 500-515100/13-A	Lab Control Sample	Total/NA	Water	7470A	515100
500-172766-12 MS	G48D	Total/NA	Water	7470A	515100
500-172766-12 MSD	G48D	Total/NA	Water	7470A	515100
500-172766-12 DU	G48D	Total/NA	Water	7470A	515100

Analysis Batch: 515482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Total/NA	Water	6010B	515215
500-172766-2	G41S	Total/NA	Water	6010B	515215
500-172766-3	G33D	Total/NA	Water	6010B	515215
500-172766-4	G42S	Total/NA	Water	6010B	515215
500-172766-5	G42D	Total/NA	Water	6010B	515215
500-172766-6	G33S	Total/NA	Water	6010B	515215
500-172766-7	G20S	Total/NA	Water	6010B	515215
500-172766-8	R16D	Total/NA	Water	6010B	515215
500-172766-9	G30S	Total/NA	Water	6010B	515215
500-172766-10	G30D	Total/NA	Water	6010B	515215
500-172766-11	R32S	Total/NA	Water	6010B	515215
500-172766-12	G48D	Total/NA	Water	6010B	515215
500-172766-13	G48S	Total/NA	Water	6010B	515215
500-172766-14	G47S	Total/NA	Water	6010B	515215
500-172766-15	G47D	Total/NA	Water	6010B	515215
500-172766-16	R08D	Total/NA	Water	6010B	515215
500-172766-17	R08S	Total/NA	Water	6010B	515215
500-172766-18	G39S	Total/NA	Water	6010B	515215
500-172766-19	G44S	Total/NA	Water	6010B	515215
500-172766-20	G44D	Total/NA	Water	6010B	515215
MB 500-515215/1-A	Method Blank	Total/NA	Water	6010B	515215
LCS 500-515215/2-A	Lab Control Sample	Total/NA	Water	6010B	515215
500-172766-1 MS	G41D	Total/NA	Water	6010B	515215
500-172766-1 MSD	G41D	Total/NA	Water	6010B	515215
500-172766-1 DU	G41D	Total/NA	Water	6010B	515215

Metals

Analysis Batch: 515501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	6010B	515216
500-172766-2	G41S	Dissolved	Water	6010B	515216
500-172766-3	G33D	Dissolved	Water	6010B	515216
500-172766-4	G42S	Dissolved	Water	6010B	515216
500-172766-5	G42D	Dissolved	Water	6010B	515216
500-172766-6	G33S	Dissolved	Water	6010B	515216
500-172766-7	G20S	Dissolved	Water	6010B	515216
500-172766-8	R16D	Dissolved	Water	6010B	515216
500-172766-9	G30S	Dissolved	Water	6010B	515216
500-172766-10	G30D	Dissolved	Water	6010B	515216
500-172766-11	R32S	Dissolved	Water	6010B	515216
500-172766-12	G48D	Dissolved	Water	6010B	515216
500-172766-13	G48S	Dissolved	Water	6010B	515216
500-172766-14	G47S	Dissolved	Water	6010B	515216
500-172766-15	G47D	Dissolved	Water	6010B	515216
500-172766-16	R08D	Dissolved	Water	6010B	515216
500-172766-17	R08S	Dissolved	Water	6010B	515216
500-172766-18	G39S	Dissolved	Water	6010B	515216
500-172766-19	G44S	Dissolved	Water	6010B	515216
500-172766-20	G44D	Dissolved	Water	6010B	515216
MB 500-515216/1-A	Method Blank	Total/NA	Water	6010B	515216
LCS 500-515216/2-A	Lab Control Sample	Total/NA	Water	6010B	515216
500-172766-20 MS	G44D	Dissolved	Water	6010B	515216
500-172766-20 MSD	G44D	Dissolved	Water	6010B	515216
500-172766-20 DU	G44D	Dissolved	Water	6010B	515216

Analysis Batch: 515612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-3	G33D	Dissolved	Water	6010B	515216

Prep Batch: 516163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Total/NA	Water	7470A	
500-172766-22	G46S	Total/NA	Water	7470A	
500-172766-28	G38D	Total/NA	Water	7470A	
500-172766-29	G38S	Total/NA	Water	7470A	
MB 500-516163/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-516163/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 516412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Total/NA	Water	7470A	516163
500-172766-22	G46S	Total/NA	Water	7470A	516163
500-172766-28	G38D	Total/NA	Water	7470A	516163
500-172766-29	G38S	Total/NA	Water	7470A	516163
MB 500-516163/12-A	Method Blank	Total/NA	Water	7470A	516163
LCS 500-516163/13-A	Lab Control Sample	Total/NA	Water	7470A	516163

Prep Batch: 517073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Dissolved	Water	3010A	

Metals (Continued)

Prep Batch: 517073 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Total/NA	Water	3010A	
500-172766-22	G46S	Dissolved	Water	3010A	
500-172766-22	G46S	Total/NA	Water	3010A	
500-172766-23	G31D	Dissolved	Water	3010A	
500-172766-23	G31D	Total/NA	Water	3010A	
500-172766-24	G31S	Dissolved	Water	3010A	
500-172766-24	G31S	Total/NA	Water	3010A	
500-172766-27	G45S	Dissolved	Water	3010A	
500-172766-27	G45S	Total/NA	Water	3010A	
500-172766-28	G38D	Dissolved	Water	3010A	
500-172766-28	G38D	Total/NA	Water	3010A	
500-172766-29	G38S	Dissolved	Water	3010A	
500-172766-29	G38S	Total/NA	Water	3010A	
MB 500-517073/1-A	Method Blank	Total/NA	Water	3010A	
LCS 500-517073/2-A	Lab Control Sample	Total/NA	Water	3010A	

Analysis Batch: 517287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Dissolved	Water	6010B	517073
500-172766-21	G46D	Total/NA	Water	6010B	517073
500-172766-22	G46S	Dissolved	Water	6010B	517073
500-172766-22	G46S	Total/NA	Water	6010B	517073
500-172766-23	G31D	Dissolved	Water	6010B	517073
500-172766-23	G31D	Total/NA	Water	6010B	517073
500-172766-24	G31S	Dissolved	Water	6010B	517073
500-172766-24	G31S	Total/NA	Water	6010B	517073
500-172766-27	G45S	Dissolved	Water	6010B	517073
500-172766-27	G45S	Total/NA	Water	6010B	517073
500-172766-28	G38D	Dissolved	Water	6010B	517073
500-172766-28	G38D	Total/NA	Water	6010B	517073
500-172766-29	G38S	Dissolved	Water	6010B	517073
500-172766-29	G38S	Total/NA	Water	6010B	517073
MB 500-517073/1-A	Method Blank	Total/NA	Water	6010B	517073
LCS 500-517073/2-A	Lab Control Sample	Total/NA	Water	6010B	517073

Analysis Batch: 517424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Dissolved	Water	6010B	517073
500-172766-22	G46S	Dissolved	Water	6010B	517073
500-172766-22	G46S	Dissolved	Water	6010B	517073
500-172766-22	G46S	Total/NA	Water	6010B	517073
500-172766-23	G31D	Dissolved	Water	6010B	517073
500-172766-24	G31S	Dissolved	Water	6010B	517073
500-172766-27	G45S	Dissolved	Water	6010B	517073
500-172766-28	G38D	Dissolved	Water	6010B	517073
500-172766-29	G38S	Dissolved	Water	6010B	517073
MB 500-517073/1-A	Method Blank	Total/NA	Water	6010B	517073
LCS 500-517073/2-A	Lab Control Sample	Total/NA	Water	6010B	517073

General Chemistry

Analysis Batch: 513700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	SM 4500 F C	
500-172766-2	G41S	Dissolved	Water	SM 4500 F C	
500-172766-3	G33D	Dissolved	Water	SM 4500 F C	
500-172766-4	G42S	Dissolved	Water	SM 4500 F C	
500-172766-5	G42D	Dissolved	Water	SM 4500 F C	
500-172766-6	G33S	Dissolved	Water	SM 4500 F C	
MB 500-513700/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-513700/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-172766-1 MS	G41D	Dissolved	Water	SM 4500 F C	
500-172766-1 MSD	G41D	Dissolved	Water	SM 4500 F C	

Analysis Batch: 513817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Total/NA	Water	2540 C	
500-172766-2	G41S	Total/NA	Water	2540 C	
500-172766-3	G33D	Total/NA	Water	2540 C	
500-172766-4	G42S	Total/NA	Water	2540 C	
500-172766-5	G42D	Total/NA	Water	2540 C	
500-172766-6	G33S	Total/NA	Water	2540 C	
500-172766-7	G20S	Total/NA	Water	2540 C	
500-172766-8	R16D	Total/NA	Water	2540 C	
MB 500-513817/1	Method Blank	Total/NA	Water	2540 C	
LCS 500-513817/2	Lab Control Sample	Total/NA	Water	2540 C	
500-172766-1 MS	G41D	Total/NA	Water	2540 C	
500-172766-1 DU	G41D	Total/NA	Water	2540 C	
500-172766-2 DU	G41S	Total/NA	Water	2540 C	

Analysis Batch: 514051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-9	G30S	Total/NA	Water	2540 C	
500-172766-10	G30D	Total/NA	Water	2540 C	
MB 500-514051/1	Method Blank	Total/NA	Water	2540 C	
LCS 500-514051/2	Lab Control Sample	Total/NA	Water	2540 C	
500-172766-9 MS	G30S	Total/NA	Water	2540 C	
500-172766-9 DU	G30S	Total/NA	Water	2540 C	
500-172766-10 DU	G30D	Total/NA	Water	2540 C	

Analysis Batch: 515001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-11	R32S	Total/NA	Water	2540 C	
500-172766-12	G48D	Total/NA	Water	2540 C	
500-172766-13	G48S	Total/NA	Water	2540 C	
500-172766-14	G47S	Total/NA	Water	2540 C	
500-172766-15	G47D	Total/NA	Water	2540 C	
500-172766-16	R08D	Total/NA	Water	2540 C	
500-172766-17	R08S	Total/NA	Water	2540 C	
500-172766-18	G39S	Total/NA	Water	2540 C	
500-172766-19	G44S	Total/NA	Water	2540 C	
500-172766-20	G44D	Total/NA	Water	2540 C	
MB 500-515001/1	Method Blank	Total/NA	Water	2540 C	
LCS 500-515001/2	Lab Control Sample	Total/NA	Water	2540 C	

General Chemistry (Continued)

Analysis Batch: 515001 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-11 MS	R32S	Total/NA	Water	2540 C	
500-172766-11 DU	R32S	Total/NA	Water	2540 C	
500-172766-12 DU	G48D	Total/NA	Water	2540 C	

Analysis Batch: 515061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	SM 5310C	
500-172766-2	G41S	Dissolved	Water	SM 5310C	
500-172766-3	G33D	Dissolved	Water	SM 5310C	
500-172766-4	G42S	Dissolved	Water	SM 5310C	
500-172766-5	G42D	Dissolved	Water	SM 5310C	
500-172766-6	G33S	Dissolved	Water	SM 5310C	
500-172766-7	G20S	Dissolved	Water	SM 5310C	
500-172766-8	R16D	Dissolved	Water	SM 5310C	
500-172766-9	G30S	Dissolved	Water	SM 5310C	
500-172766-10	G30D	Dissolved	Water	SM 5310C	
500-172766-11	R32S	Dissolved	Water	SM 5310C	
500-172766-12	G48D	Dissolved	Water	SM 5310C	
500-172766-13	G48S	Dissolved	Water	SM 5310C	
500-172766-14	G47S	Dissolved	Water	SM 5310C	
500-172766-15	G47D	Dissolved	Water	SM 5310C	
MB 500-515061/8	Method Blank	Dissolved	Water	SM 5310C	
LCS 500-515061/9	Lab Control Sample	Dissolved	Water	SM 5310C	
500-172766-1 MS	G41D	Dissolved	Water	SM 5310C	
500-172766-1 MSD	G41D	Dissolved	Water	SM 5310C	

Analysis Batch: 515426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	SM 4500 Cl- E	
500-172766-2	G41S	Dissolved	Water	SM 4500 Cl- E	
500-172766-3	G33D	Dissolved	Water	SM 4500 Cl- E	
500-172766-4	G42S	Dissolved	Water	SM 4500 Cl- E	
500-172766-5	G42D	Dissolved	Water	SM 4500 Cl- E	
500-172766-6	G33S	Dissolved	Water	SM 4500 Cl- E	
500-172766-8	R16D	Dissolved	Water	SM 4500 Cl- E	
500-172766-9	G30S	Dissolved	Water	SM 4500 Cl- E	
500-172766-10	G30D	Dissolved	Water	SM 4500 Cl- E	
500-172766-11	R32S	Dissolved	Water	SM 4500 Cl- E	
500-172766-12	G48D	Dissolved	Water	SM 4500 Cl- E	
500-172766-13	G48S	Dissolved	Water	SM 4500 Cl- E	
500-172766-17	R08S	Dissolved	Water	SM 4500 Cl- E	
500-172766-18	G39S	Dissolved	Water	SM 4500 Cl- E	
MB 500-515426/9	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-515426/10	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-172766-8 MS	R16D	Dissolved	Water	SM 4500 Cl- E	
500-172766-8 MSD	R16D	Dissolved	Water	SM 4500 Cl- E	
500-172766-9 MS	G30S	Dissolved	Water	SM 4500 Cl- E	
500-172766-9 MSD	G30S	Dissolved	Water	SM 4500 Cl- E	

General Chemistry

Analysis Batch: 515443

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	9056A	
500-172766-2	G41S	Dissolved	Water	9056A	
500-172766-3	G33D	Dissolved	Water	9056A	
500-172766-4	G42S	Dissolved	Water	9056A	
500-172766-5	G42D	Dissolved	Water	9056A	
500-172766-6	G33S	Dissolved	Water	9056A	
500-172766-8	R16D	Dissolved	Water	9056A	
500-172766-9	G30S	Dissolved	Water	9056A	
500-172766-10	G30D	Dissolved	Water	9056A	
500-172766-11	R32S	Dissolved	Water	9056A	
500-172766-12	G48D	Dissolved	Water	9056A	
500-172766-13	G48S	Dissolved	Water	9056A	
500-172766-14	G47S	Dissolved	Water	9056A	
500-172766-15	G47D	Dissolved	Water	9056A	
500-172766-16	R08D	Dissolved	Water	9056A	
500-172766-17	R08S	Dissolved	Water	9056A	
500-172766-18	G39S	Dissolved	Water	9056A	
500-172766-19	G44S	Dissolved	Water	9056A	
500-172766-20	G44D	Dissolved	Water	9056A	
500-172766-21	G46D	Dissolved	Water	9056A	
MB 500-515443/3	Method Blank	Total/NA	Water	9056A	
LCS 500-515443/4	Lab Control Sample	Total/NA	Water	9056A	
500-172766-4 MS	G42S	Dissolved	Water	9056A	
500-172766-4 MSD	G42S	Dissolved	Water	9056A	
500-172766-6 MS	G33S	Dissolved	Water	9056A	
500-172766-6 MSD	G33S	Dissolved	Water	9056A	

Analysis Batch: 515641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-22	G46S	Dissolved	Water	9056A	
500-172766-23	G31D	Dissolved	Water	9056A	
500-172766-24	G31S	Dissolved	Water	9056A	
MB 500-515641/3	Method Blank	Total/NA	Water	9056A	
LCS 500-515641/4	Lab Control Sample	Total/NA	Water	9056A	
500-172766-23 MS	G31D	Dissolved	Water	9056A	
500-172766-23 MSD	G31D	Dissolved	Water	9056A	

Analysis Batch: 515692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-28	G38D	Dissolved	Water	SM 4500 F C	
MB 500-515692/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-515692/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 516025

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-14	G47S	Dissolved	Water	SM 4500 Cl- E	
500-172766-15	G47D	Dissolved	Water	SM 4500 Cl- E	
500-172766-16	R08D	Dissolved	Water	SM 4500 Cl- E	
500-172766-19	G44S	Dissolved	Water	SM 4500 Cl- E	
500-172766-20	G44D	Dissolved	Water	SM 4500 Cl- E	
500-172766-21	G46D	Dissolved	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 516025 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-22	G46S	Dissolved	Water	SM 4500 Cl- E	
500-172766-23	G31D	Dissolved	Water	SM 4500 Cl- E	
MB 500-516025/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-516025/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-172766-23 MS	G31D	Dissolved	Water	SM 4500 Cl- E	
500-172766-23 MSD	G31D	Dissolved	Water	SM 4500 Cl- E	

Prep Batch: 516229

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-18	G39S	Dissolved	Water	SM 4500 NH3 B	
MB 500-516229/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-516229/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 516292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-21	G46D	Total/NA	Water	2540 C	
500-172766-22	G46S	Total/NA	Water	2540 C	
500-172766-23	G31D	Total/NA	Water	2540 C	
500-172766-24	G31S	Total/NA	Water	2540 C	
MB 500-516292/1	Method Blank	Total/NA	Water	2540 C	
LCS 500-516292/2	Lab Control Sample	Total/NA	Water	2540 C	

Prep Batch: 516456

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	SM 4500 NH3 B	
500-172766-2	G41S	Dissolved	Water	SM 4500 NH3 B	
500-172766-3	G33D	Dissolved	Water	SM 4500 NH3 B	
500-172766-4	G42S	Dissolved	Water	SM 4500 NH3 B	
500-172766-5	G42D	Dissolved	Water	SM 4500 NH3 B	
500-172766-6	G33S	Dissolved	Water	SM 4500 NH3 B	
MB 500-516456/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-516456/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
500-172766-1 MS	G41D	Dissolved	Water	SM 4500 NH3 B	
500-172766-1 MSD	G41D	Dissolved	Water	SM 4500 NH3 B	

Analysis Batch: 516511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-27	G45S	Total/NA	Water	2540 C	
500-172766-28	G38D	Total/NA	Water	2540 C	
500-172766-29	G38S	Total/NA	Water	2540 C	
MB 500-516511/1	Method Blank	Total/NA	Water	2540 C	
LCS 500-516511/2	Lab Control Sample	Total/NA	Water	2540 C	
500-172766-27 DU	G45S	Total/NA	Water	2540 C	

Analysis Batch: 516531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-18	G39S	Dissolved	Water	SM 4500 NH3 G	516229
MB 500-516229/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	516229
LCS 500-516229/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	516229

General Chemistry

Prep Batch: 516629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-7	G20S	Dissolved	Water	SM 4500 NH3 B	
500-172766-8	R16D	Dissolved	Water	SM 4500 NH3 B	
500-172766-9	G30S	Dissolved	Water	SM 4500 NH3 B	
500-172766-10	G30D	Dissolved	Water	SM 4500 NH3 B	
500-172766-11	R32S	Dissolved	Water	SM 4500 NH3 B	
500-172766-12	G48D	Dissolved	Water	SM 4500 NH3 B	
500-172766-13	G48S	Dissolved	Water	SM 4500 NH3 B	
500-172766-14	G47S	Dissolved	Water	SM 4500 NH3 B	
500-172766-15	G47D	Dissolved	Water	SM 4500 NH3 B	
500-172766-16	R08D	Dissolved	Water	SM 4500 NH3 B	
500-172766-17	R08S	Dissolved	Water	SM 4500 NH3 B	
500-172766-19	G44S	Dissolved	Water	SM 4500 NH3 B	
500-172766-20	G44D	Dissolved	Water	SM 4500 NH3 B	
500-172766-21	G46D	Dissolved	Water	SM 4500 NH3 B	
500-172766-22	G46S	Dissolved	Water	SM 4500 NH3 B	
500-172766-23	G31D	Dissolved	Water	SM 4500 NH3 B	
500-172766-24	G31S	Dissolved	Water	SM 4500 NH3 B	
MB 500-516629/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-516629/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
500-172766-7 MS	G20S	Dissolved	Water	SM 4500 NH3 B	
500-172766-7 MSD	G20S	Dissolved	Water	SM 4500 NH3 B	

Analysis Batch: 516668

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	SM 4500 NH3 G	516456
500-172766-2	G41S	Dissolved	Water	SM 4500 NH3 G	516456
500-172766-3	G33D	Dissolved	Water	SM 4500 NH3 G	516456
500-172766-4	G42S	Dissolved	Water	SM 4500 NH3 G	516456
500-172766-5	G42D	Dissolved	Water	SM 4500 NH3 G	516456
500-172766-6	G33S	Dissolved	Water	SM 4500 NH3 G	516456
MB 500-516456/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	516456
LCS 500-516456/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	516456
500-172766-1 MS	G41D	Dissolved	Water	SM 4500 NH3 G	516456
500-172766-1 MSD	G41D	Dissolved	Water	SM 4500 NH3 G	516456

Prep Batch: 516891

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-27	G45S	Dissolved	Water	SM 4500 NH3 B	
500-172766-28	G38D	Dissolved	Water	SM 4500 NH3 B	
500-172766-29	G38S	Dissolved	Water	SM 4500 NH3 B	
MB 500-516891/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-516891/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 516901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-16	R08D	Dissolved	Water	SM 5310C	
500-172766-17	R08S	Dissolved	Water	SM 5310C	
500-172766-18	G39S	Dissolved	Water	SM 5310C	
500-172766-19	G44S	Dissolved	Water	SM 5310C	
500-172766-20	G44D	Dissolved	Water	SM 5310C	
500-172766-21	G46D	Dissolved	Water	SM 5310C	

General Chemistry (Continued)

Analysis Batch: 516901 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-22	G46S	Dissolved	Water	SM 5310C	
500-172766-23	G31D	Dissolved	Water	SM 5310C	
500-172766-24	G31S	Dissolved	Water	SM 5310C	
500-172766-27	G45S	Dissolved	Water	SM 5310C	
500-172766-28	G38D	Dissolved	Water	SM 5310C	
500-172766-29	G38S	Dissolved	Water	SM 5310C	
MB 500-516901/8	Method Blank	Dissolved	Water	SM 5310C	
LCS 500-516901/9	Lab Control Sample	Dissolved	Water	SM 5310C	
500-172766-16 MS	R08D	Dissolved	Water	SM 5310C	
500-172766-16 MSD	R08D	Dissolved	Water	SM 5310C	

Analysis Batch: 516975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-7	G20S	Dissolved	Water	SM 4500 F C	
500-172766-8	R16D	Dissolved	Water	SM 4500 F C	
500-172766-9	G30S	Dissolved	Water	SM 4500 F C	
500-172766-10	G30D	Dissolved	Water	SM 4500 F C	
500-172766-11	R32S	Dissolved	Water	SM 4500 F C	
500-172766-12	G48D	Dissolved	Water	SM 4500 F C	
500-172766-13	G48S	Dissolved	Water	SM 4500 F C	
500-172766-14	G47S	Dissolved	Water	SM 4500 F C	
500-172766-15	G47D	Dissolved	Water	SM 4500 F C	
500-172766-16	R08D	Dissolved	Water	SM 4500 F C	
500-172766-17	R08S	Dissolved	Water	SM 4500 F C	
500-172766-18	G39S	Dissolved	Water	SM 4500 F C	
500-172766-19	G44S	Dissolved	Water	SM 4500 F C	
500-172766-20	G44D	Dissolved	Water	SM 4500 F C	
500-172766-21	G46D	Dissolved	Water	SM 4500 F C	
500-172766-22	G46S	Dissolved	Water	SM 4500 F C	
500-172766-23	G31D	Dissolved	Water	SM 4500 F C	
500-172766-24	G31S	Dissolved	Water	SM 4500 F C	
500-172766-27	G45S	Dissolved	Water	SM 4500 F C	
500-172766-29	G38S	Dissolved	Water	SM 4500 F C	
MB 500-516975/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-516975/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-172766-8 MS	R16D	Dissolved	Water	SM 4500 F C	
500-172766-8 MSD	R16D	Dissolved	Water	SM 4500 F C	

Analysis Batch: 517184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-7	G20S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-8	R16D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-9	G30S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-10	G30D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-11	R32S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-12	G48D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-13	G48S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-14	G47S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-15	G47D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-16	R08D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-17	R08S	Dissolved	Water	SM 4500 NH3 G	516629

General Chemistry (Continued)

Analysis Batch: 517184 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-19	G44S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-20	G44D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-21	G46D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-22	G46S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-23	G31D	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-24	G31S	Dissolved	Water	SM 4500 NH3 G	516629
MB 500-516629/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	516629
LCS 500-516629/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	516629
500-172766-7 MS	G20S	Dissolved	Water	SM 4500 NH3 G	516629
500-172766-7 MSD	G20S	Dissolved	Water	SM 4500 NH3 G	516629

Analysis Batch: 517237

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-27	G45S	Dissolved	Water	SM 4500 NH3 G	516891
500-172766-28	G38D	Dissolved	Water	SM 4500 NH3 G	516891
500-172766-29	G38S	Dissolved	Water	SM 4500 NH3 G	516891
MB 500-516891/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	516891
LCS 500-516891/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	516891

Analysis Batch: 517651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-7	G20S	Dissolved	Water	9056A	
500-172766-27	G45S	Dissolved	Water	9056A	
500-172766-28	G38D	Dissolved	Water	9056A	
500-172766-29	G38S	Dissolved	Water	9056A	
MB 500-517651/3	Method Blank	Total/NA	Water	9056A	
LCS 500-517651/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 517655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-7	G20S	Dissolved	Water	SM 4500 Cl- E	
500-172766-24	G31S	Dissolved	Water	SM 4500 Cl- E	
500-172766-27	G45S	Dissolved	Water	SM 4500 Cl- E	
500-172766-28	G38D	Dissolved	Water	SM 4500 Cl- E	
500-172766-29	G38S	Dissolved	Water	SM 4500 Cl- E	
MB 500-517655/63	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-517655/64	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-172766-24 MS	G31S	Dissolved	Water	SM 4500 Cl- E	
500-172766-24 MSD	G31S	Dissolved	Water	SM 4500 Cl- E	
500-172766-29 MS	G38S	Dissolved	Water	SM 4500 Cl- E	
500-172766-29 MSD	G38S	Dissolved	Water	SM 4500 Cl- E	

Analysis Batch: 517730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Dissolved	Water	Nitrate by calc	
500-172766-2	G41S	Dissolved	Water	Nitrate by calc	
500-172766-3	G33D	Dissolved	Water	Nitrate by calc	
500-172766-4	G42S	Dissolved	Water	Nitrate by calc	

General Chemistry

Analysis Batch: 517948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Total/NA	Water	Nitrate by calc	
500-172766-2	G41S	Total/NA	Water	Nitrate by calc	
500-172766-3	G33D	Total/NA	Water	Nitrate by calc	
500-172766-4	G42S	Total/NA	Water	Nitrate by calc	
500-172766-5	G42D	Total/NA	Water	Nitrate by calc	
500-172766-6	G33S	Total/NA	Water	Nitrate by calc	
500-172766-7	G20S	Total/NA	Water	Nitrate by calc	
500-172766-8	R16D	Total/NA	Water	Nitrate by calc	
500-172766-9	G30S	Total/NA	Water	Nitrate by calc	
500-172766-10	G30D	Total/NA	Water	Nitrate by calc	
500-172766-11	R32S	Total/NA	Water	Nitrate by calc	
500-172766-12	G48D	Total/NA	Water	Nitrate by calc	
500-172766-13	G48S	Total/NA	Water	Nitrate by calc	
500-172766-14	G47S	Total/NA	Water	Nitrate by calc	
500-172766-15	G47D	Total/NA	Water	Nitrate by calc	
500-172766-16	R08D	Total/NA	Water	Nitrate by calc	
500-172766-17	R08S	Total/NA	Water	Nitrate by calc	
500-172766-18	G39S	Total/NA	Water	Nitrate by calc	
500-172766-19	G44S	Total/NA	Water	Nitrate by calc	
500-172766-20	G44D	Total/NA	Water	Nitrate by calc	
500-172766-21	G46D	Total/NA	Water	Nitrate by calc	
500-172766-22	G46S	Total/NA	Water	Nitrate by calc	
500-172766-23	G31D	Total/NA	Water	Nitrate by calc	
500-172766-24	G31S	Total/NA	Water	Nitrate by calc	
500-172766-27	G45S	Total/NA	Water	Nitrate by calc	
500-172766-28	G38D	Total/NA	Water	Nitrate by calc	
500-172766-29	G38S	Total/NA	Water	Nitrate by calc	

Analysis Batch: 517951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-5	G42D	Dissolved	Water	Nitrate by calc	
500-172766-6	G33S	Dissolved	Water	Nitrate by calc	
500-172766-7	G20S	Dissolved	Water	Nitrate by calc	
500-172766-8	R16D	Dissolved	Water	Nitrate by calc	
500-172766-9	G30S	Dissolved	Water	Nitrate by calc	
500-172766-10	G30D	Dissolved	Water	Nitrate by calc	
500-172766-11	R32S	Dissolved	Water	Nitrate by calc	
500-172766-12	G48D	Dissolved	Water	Nitrate by calc	
500-172766-13	G48S	Dissolved	Water	Nitrate by calc	
500-172766-14	G47S	Dissolved	Water	Nitrate by calc	
500-172766-15	G47D	Dissolved	Water	Nitrate by calc	
500-172766-16	R08D	Dissolved	Water	Nitrate by calc	
500-172766-17	R08S	Dissolved	Water	Nitrate by calc	
500-172766-18	G39S	Dissolved	Water	Nitrate by calc	
500-172766-19	G44S	Dissolved	Water	Nitrate by calc	
500-172766-20	G44D	Dissolved	Water	Nitrate by calc	
500-172766-21	G46D	Dissolved	Water	Nitrate by calc	
500-172766-22	G46S	Dissolved	Water	Nitrate by calc	
500-172766-23	G31D	Dissolved	Water	Nitrate by calc	
500-172766-24	G31S	Dissolved	Water	Nitrate by calc	
500-172766-27	G45S	Dissolved	Water	Nitrate by calc	

General Chemistry (Continued)

Analysis Batch: 517951 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-28	G38D	Dissolved	Water	Nitrate by calc	
500-172766-29	G38S	Dissolved	Water	Nitrate by calc	

Field Service / Mobile Lab

Analysis Batch: 513615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-172766-1	G41D	Total/NA	Water	Field Sampling	
500-172766-2	G41S	Total/NA	Water	Field Sampling	
500-172766-3	G33D	Total/NA	Water	Field Sampling	
500-172766-4	G42S	Total/NA	Water	Field Sampling	
500-172766-5	G42D	Total/NA	Water	Field Sampling	
500-172766-6	G33S	Total/NA	Water	Field Sampling	
500-172766-7	G20S	Total/NA	Water	Field Sampling	
500-172766-8	R16D	Total/NA	Water	Field Sampling	
500-172766-9	G30S	Total/NA	Water	Field Sampling	
500-172766-10	G30D	Total/NA	Water	Field Sampling	
500-172766-11	R32S	Total/NA	Water	Field Sampling	
500-172766-12	G48D	Total/NA	Water	Field Sampling	
500-172766-13	G48S	Total/NA	Water	Field Sampling	
500-172766-14	G47S	Total/NA	Water	Field Sampling	
500-172766-15	G47D	Total/NA	Water	Field Sampling	
500-172766-16	R08D	Total/NA	Water	Field Sampling	
500-172766-17	R08S	Total/NA	Water	Field Sampling	
500-172766-18	G39S	Total/NA	Water	Field Sampling	
500-172766-19	G44S	Total/NA	Water	Field Sampling	
500-172766-20	G44D	Total/NA	Water	Field Sampling	
500-172766-21	G46D	Total/NA	Water	Field Sampling	
500-172766-22	G46S	Total/NA	Water	Field Sampling	
500-172766-23	G31D	Total/NA	Water	Field Sampling	
500-172766-24	G31S	Total/NA	Water	Field Sampling	
500-172766-25	S501	Total/NA	Water	Field Sampling	
500-172766-26	P40S	Total/NA	Water	Field Sampling	
500-172766-27	G45S	Total/NA	Water	Field Sampling	
500-172766-28	G38D	Total/NA	Water	Field Sampling	
500-172766-29	G38S	Total/NA	Water	Field Sampling	

Surrogate Summary

Client: Midwest Generation EME LLC
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Job ID: 500-172766-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	NBZ (36-120)	FBP (34-110)	TPHL (40-145)
500-172766-1	G41D	36	69	106
500-172766-2	G41S	27 X	64	91
500-172766-3	G33D	19 X	55	86
500-172766-4	G42S	105	112 X	171 X
500-172766-5	G42D	108	107	173 X
500-172766-6	G33S	65	69	105
500-172766-7	G20S	68	68	115
500-172766-8	R16D	77	77	121
500-172766-9	G30S	61	64	101
500-172766-10	G30D	53	58	96
500-172766-11	R32S	60	68	91
500-172766-12	G48D	79	87	115
500-172766-13	G48S	87	91	124
500-172766-14	G47S	79	84	116
500-172766-15	G47D	81	84	118
500-172766-16	R08D	69	74	97
500-172766-17	R08S	71	77	102
500-172766-18	G39S	72	79	88
500-172766-19	G44S	71	79	99
500-172766-20	G44D	61	68	89
500-172766-21	G46D	63	58	84
500-172766-22	G46S	70	76	89
500-172766-23	G31D	66	72	86
500-172766-24	G31S	64	73	88
500-172766-27	G45S	57	64	90
500-172766-28	G38D	74	82	95
500-172766-29	G38S	72	77	98
LCS 500-513555/2-A	Lab Control Sample	68	75	90
LCS 500-513702/2-A	Lab Control Sample	50	45	83
LCS 500-514198/2-A	Lab Control Sample	55	54	88
LCS 500-514313/2-A	Lab Control Sample	65	72	86
LCS 500-515030/2-A	Lab Control Sample	78	83	88
LCS 500-515276/2-A	Lab Control Sample	58	61	74
LCS 500-515510/2-A	Lab Control Sample	69	75	88
LCSD 500-513702/3-A	Lab Control Sample Dup	54	48	77
LCSD 500-514198/3-A	Lab Control Sample Dup	49	44	85
LCSD 500-514313/3-A	Lab Control Sample Dup	59	68	94
LCSD 500-515030/3-A	Lab Control Sample Dup	74	76	93
LCSD 500-515276/3-A	Lab Control Sample Dup	52	52	73
LCSD 500-515510/3-A	Lab Control Sample Dup	66	74	86
MB 500-513555/1-A	Method Blank	64	72	93
MB 500-513702/1-A	Method Blank	61	51	93
MB 500-514198/1-A	Method Blank	54	49	93
MB 500-514313/1-A	Method Blank	70	77	102
MB 500-515030/1-A	Method Blank	78	84	97
MB 500-515276/1-A	Method Blank	58	61	85
MB 500-515510/1-A	Method Blank	66	73	92

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)

Surrogate Summary

Client: Midwest Generation EME LLC
Job ID: 500-172766-1
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

FBP = 2-Fluorobiphenyl (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-513555/1-A
Matrix: Water
Analysis Batch: 513740

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513555

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 07:46	11/06/19 02:53	1
Fluoranthene	ND		0.80		ug/L		11/05/19 07:46	11/06/19 02:53	1
Pyrene	ND		0.80		ug/L		11/05/19 07:46	11/06/19 02:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*64*		*36 - 120*	*11/05/19 07:46*	*11/06/19 02:53*	*1*
2-Fluorobiphenyl (Surr)	*72*		*34 - 110*	*11/05/19 07:46*	*11/06/19 02:53*	*1*
Terphenyl-d14 (Surr)	*93*		*40 - 145*	*11/05/19 07:46*	*11/06/19 02:53*	*1*

Lab Sample ID: LCS 500-513555/2-A
Matrix: Water
Analysis Batch: 513740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513555

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	32.0	29.1		ug/L		91	70 - 135
Fluoranthene	32.0	29.2		ug/L		91	68 - 126
Pyrene	32.0	25.1		ug/L		78	70 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*68*		*36 - 120*
2-Fluorobiphenyl (Surr)	*75*		*34 - 110*
Terphenyl-d14 (Surr)	*90*		*40 - 145*

Lab Sample ID: MB 500-513702/1-A
Matrix: Water
Analysis Batch: 513975

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513702

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/05/19 16:53	11/06/19 23:34	1
Fluoranthene	ND		0.80		ug/L		11/05/19 16:53	11/06/19 23:34	1
Pyrene	ND		0.80		ug/L		11/05/19 16:53	11/06/19 23:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*61*		*36 - 120*	*11/05/19 16:53*	*11/06/19 23:34*	*1*
2-Fluorobiphenyl (Surr)	*51*		*34 - 110*	*11/05/19 16:53*	*11/06/19 23:34*	*1*
Terphenyl-d14 (Surr)	*93*		*40 - 145*	*11/05/19 16:53*	*11/06/19 23:34*	*1*

Lab Sample ID: LCS 500-513702/2-A
Matrix: Water
Analysis Batch: 513975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513702

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	32.0	33.1		ug/L		103	70 - 135
Fluoranthene	32.0	29.6		ug/L		93	68 - 126
Pyrene	32.0	30.6		ug/L		96	70 - 126

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-513702/2-A
Matrix: Water
Analysis Batch: 513975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513702

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*50*		*36 - 120*
2-Fluorobiphenyl (Surr)	*45*		*34 - 110*
Terphenyl-d14 (Surr)	*83*		*40 - 145*

Lab Sample ID: LCSD 500-513702/3-A
Matrix: Water
Analysis Batch: 513975

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 513702

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene			32.0	28.0		ug/L		87	70 - 135	17	20
Fluoranthene			32.0	26.3		ug/L		82	68 - 126	12	20
Pyrene			32.0	26.4		ug/L		83	70 - 126	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*54*		*36 - 120*
2-Fluorobiphenyl (Surr)	*48*		*34 - 110*
Terphenyl-d14 (Surr)	*77*		*40 - 145*

Lab Sample ID: MB 500-514198/1-A
Matrix: Water
Analysis Batch: 514832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 514198

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/07/19 15:45	11/12/19 16:51	1
Fluoranthene	ND		0.80		ug/L		11/07/19 15:45	11/12/19 16:51	1
Pyrene	ND		0.80		ug/L		11/07/19 15:45	11/12/19 16:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*54*		*36 - 120*	*11/07/19 15:45*	*11/12/19 16:51*	*1*
2-Fluorobiphenyl (Surr)	*49*		*34 - 110*	*11/07/19 15:45*	*11/12/19 16:51*	*1*
Terphenyl-d14 (Surr)	*93*		*40 - 145*	*11/07/19 15:45*	*11/12/19 16:51*	*1*

Lab Sample ID: LCS 500-514198/2-A
Matrix: Water
Analysis Batch: 514832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 514198

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene			32.0	31.0		ug/L		97	70 - 135
Fluoranthene			32.0	29.6		ug/L		92	68 - 126
Pyrene			32.0	28.2		ug/L		88	70 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*55*		*36 - 120*
2-Fluorobiphenyl (Surr)	*54*		*34 - 110*
Terphenyl-d14 (Surr)	*88*		*40 - 145*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-514198/3-A
Matrix: Water
Analysis Batch: 514832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 514198

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene			32.0	29.8		ug/L		93	70 - 135	4	20
Fluoranthene			32.0	29.6		ug/L		92	68 - 126	0	20
Pyrene			32.0	27.5		ug/L		86	70 - 126	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*49*		*36 - 120*
2-Fluorobiphenyl (Surr)	*44*		*34 - 110*
Terphenyl-d14 (Surr)	*85*		*40 - 145*

Lab Sample ID: MB 500-514313/1-A
Matrix: Water
Analysis Batch: 514832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 514313

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/08/19 08:19	11/12/19 16:02	1
Fluoranthene	ND		0.80		ug/L		11/08/19 08:19	11/12/19 16:02	1
Pyrene	ND		0.80		ug/L		11/08/19 08:19	11/12/19 16:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*36 - 120*	*11/08/19 08:19*	*11/12/19 16:02*	*1*
2-Fluorobiphenyl (Surr)	*77*		*34 - 110*	*11/08/19 08:19*	*11/12/19 16:02*	*1*
Terphenyl-d14 (Surr)	*102*		*40 - 145*	*11/08/19 08:19*	*11/12/19 16:02*	*1*

Lab Sample ID: LCS 500-514313/2-A
Matrix: Water
Analysis Batch: 514832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 514313

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene			32.0	27.1		ug/L		85	70 - 135
Fluoranthene			32.0	25.8		ug/L		81	68 - 126
Pyrene			32.0	25.0		ug/L		78	70 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*65*		*36 - 120*
2-Fluorobiphenyl (Surr)	*72*		*34 - 110*
Terphenyl-d14 (Surr)	*86*		*40 - 145*

Lab Sample ID: LCSD 500-514313/3-A
Matrix: Water
Analysis Batch: 514832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 514313

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene			32.0	30.9		ug/L		96	70 - 135	13	20
Fluoranthene			32.0	29.5		ug/L		92	68 - 126	13	20
Pyrene			32.0	28.0		ug/L		88	70 - 126	11	20

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-514313/3-A
Matrix: Water
Analysis Batch: 514832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 514313

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*59*		*36 - 120*
2-Fluorobiphenyl (Surr)	*68*		*34 - 110*
Terphenyl-d14 (Surr)	*94*		*40 - 145*

Lab Sample ID: MB 500-515030/1-A
Matrix: Water
Analysis Batch: 516000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/13/19 07:35	11/18/19 20:48	1
Fluoranthene	ND		0.80		ug/L		11/13/19 07:35	11/18/19 20:48	1
Pyrene	ND		0.80		ug/L		11/13/19 07:35	11/18/19 20:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*	*11/13/19 07:35*	*11/18/19 20:48*	*1*
2-Fluorobiphenyl (Surr)	*84*		*34 - 110*	*11/13/19 07:35*	*11/18/19 20:48*	*1*
Terphenyl-d14 (Surr)	*97*		*40 - 145*	*11/13/19 07:35*	*11/18/19 20:48*	*1*

Lab Sample ID: LCS 500-515030/2-A
Matrix: Water
Analysis Batch: 516000

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	32.0	33.4		ug/L		104	70 - 135
Fluoranthene	32.0	32.0		ug/L		100	68 - 126
Pyrene	32.0	30.7		ug/L		96	70 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*78*		*36 - 120*
2-Fluorobiphenyl (Surr)	*83*		*34 - 110*
Terphenyl-d14 (Surr)	*88*		*40 - 145*

Lab Sample ID: LCSD 500-515030/3-A
Matrix: Water
Analysis Batch: 516000

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 515030

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene	32.0	34.5		ug/L		108	70 - 135	3	20
Fluoranthene	32.0	32.4		ug/L		101	68 - 126	1	20
Pyrene	32.0	31.8		ug/L		99	70 - 126	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*74*		*36 - 120*
2-Fluorobiphenyl (Surr)	*76*		*34 - 110*
Terphenyl-d14 (Surr)	*93*		*40 - 145*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-515276/1-A
Matrix: Water
Analysis Batch: 517373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/14/19 07:46	11/26/19 13:08	1
Fluoranthene	ND		0.80		ug/L		11/14/19 07:46	11/26/19 13:08	1
Pyrene	ND		0.80		ug/L		11/14/19 07:46	11/26/19 13:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*58*		*36 - 120*	*11/14/19 07:46*	*11/26/19 13:08*	*1*
2-Fluorobiphenyl (Surr)	*61*		*34 - 110*	*11/14/19 07:46*	*11/26/19 13:08*	*1*
Terphenyl-d14 (Surr)	*85*		*40 - 145*	*11/14/19 07:46*	*11/26/19 13:08*	*1*

Lab Sample ID: LCS 500-515276/2-A
Matrix: Water
Analysis Batch: 517373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	32.0	28.9		ug/L		90	70 - 135
Fluoranthene	32.0	25.9		ug/L		81	68 - 126
Pyrene	32.0	26.0		ug/L		81	70 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*58*		*36 - 120*
2-Fluorobiphenyl (Surr)	*61*		*34 - 110*
Terphenyl-d14 (Surr)	*74*		*40 - 145*

Lab Sample ID: LCSD 500-515276/3-A
Matrix: Water
Analysis Batch: 517373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 515276

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene	32.0	27.2		ug/L		85	70 - 135	6	20
Fluoranthene	32.0	26.3		ug/L		82	68 - 126	2	20
Pyrene	32.0	25.8		ug/L		81	70 - 126	1	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*52*		*36 - 120*
2-Fluorobiphenyl (Surr)	*52*		*34 - 110*
Terphenyl-d14 (Surr)	*73*		*40 - 145*

Lab Sample ID: MB 500-515510/1-A
Matrix: Water
Analysis Batch: 517495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515510

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.16		ug/L		11/15/19 07:35	11/27/19 05:26	1
Fluoranthene	ND		0.80		ug/L		11/15/19 07:35	11/27/19 05:26	1
Pyrene	ND		0.80		ug/L		11/15/19 07:35	11/27/19 05:26	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-515510/1-A
Matrix: Water
Analysis Batch: 517495

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515510

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		36 - 120	11/15/19 07:35	11/27/19 05:26	1
2-Fluorobiphenyl (Surr)	73		34 - 110	11/15/19 07:35	11/27/19 05:26	1
Terphenyl-d14 (Surr)	92		40 - 145	11/15/19 07:35	11/27/19 05:26	1

Lab Sample ID: LCS 500-515510/2-A
Matrix: Water
Analysis Batch: 517495

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515510

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]pyrene	32.0	30.8		ug/L		96	70 - 135
Fluoranthene	32.0	29.2		ug/L		91	68 - 126
Pyrene	32.0	28.9		ug/L		90	70 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	69		36 - 120
2-Fluorobiphenyl (Surr)	75		34 - 110
Terphenyl-d14 (Surr)	88		40 - 145

Lab Sample ID: LCSD 500-515510/3-A
Matrix: Water
Analysis Batch: 517495

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 515510

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene	32.0	31.0		ug/L		97	70 - 135	1	20
Fluoranthene	32.0	28.8		ug/L		90	68 - 126	2	20
Pyrene	32.0	28.6		ug/L		90	70 - 126	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	66		36 - 120
2-Fluorobiphenyl (Surr)	74		34 - 110
Terphenyl-d14 (Surr)	86		40 - 145

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-515215/1-A
Matrix: Water
Analysis Batch: 515482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515215

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		10		ug/L		11/13/19 16:53	11/15/19 02:44	1
Copper	ND		10		ug/L		11/13/19 16:53	11/15/19 02:44	1
Iron	ND		200		ug/L		11/13/19 16:53	11/15/19 02:44	1
Lead	ND		5.0		ug/L		11/13/19 16:53	11/15/19 02:44	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-515215/2-A
Matrix: Water
Analysis Batch: 515482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515215

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Barium			2000	1990		ug/L		99	80 - 120		
Copper			250	252		ug/L		101	80 - 120		
Iron			1000	1110		ug/L		111	80 - 120		
Lead			100	93.8		ug/L		94	80 - 120		

Lab Sample ID: 500-172766-1 MS
Matrix: Water
Analysis Batch: 515482

Client Sample ID: G41D
Prep Type: Total/NA
Prep Batch: 515215

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Barium	31		2000	1990		ug/L		98	75 - 125		
Copper	ND		250	260		ug/L		104	75 - 125		
Iron	200		1000	1120		ug/L		92	75 - 125		
Lead	ND		100	96.2		ug/L		96	75 - 125		

Lab Sample ID: 500-172766-1 MSD
Matrix: Water
Analysis Batch: 515482

Client Sample ID: G41D
Prep Type: Total/NA
Prep Batch: 515215

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	31		2000	1980		ug/L		97	75 - 125	1	20
Copper	ND		250	257		ug/L		103	75 - 125	1	20
Iron	200		1000	1150		ug/L		94	75 - 125	2	20
Lead	ND		100	96.7		ug/L		97	75 - 125	1	20

Lab Sample ID: 500-172766-1 DU
Matrix: Water
Analysis Batch: 515482

Client Sample ID: G41D
Prep Type: Total/NA
Prep Batch: 515215

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Barium	31			29.7		ug/L				3	20
Copper	ND			ND		ug/L				NC	20
Iron	200			225		ug/L				11	20
Lead	ND			ND		ug/L				NC	20

Lab Sample ID: MB 500-515216/1-A
Matrix: Water
Analysis Batch: 515501

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/13/19 16:55	11/15/19 04:16	1
Barium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:16	1
Boron	ND		50		ug/L		11/13/19 16:55	11/15/19 04:16	1
Cadmium	ND		2.0		ug/L		11/13/19 16:55	11/15/19 04:16	1
Manganese	ND		10		ug/L		11/13/19 16:55	11/15/19 04:16	1
Molybdenum	ND		10		ug/L		11/13/19 16:55	11/15/19 04:16	1
Potassium	ND		0.50		mg/L		11/13/19 16:55	11/15/19 04:16	1
Selenium	ND		10		ug/L		11/13/19 16:55	11/15/19 04:16	1
Sodium	ND		1.0		mg/L		11/13/19 16:55	11/15/19 04:16	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 500-515216/1-A
Matrix: Water
Analysis Batch: 515501

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515216

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		20		ug/L		11/13/19 16:55	11/15/19 04:16	1

Lab Sample ID: LCS 500-515216/2-A
Matrix: Water
Analysis Batch: 515501

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515216

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	94.4		ug/L		94	80 - 120
Barium	2000	1920		ug/L		96	80 - 120
Boron	1000	910		ug/L		91	80 - 120
Cadmium	50.0	49.3		ug/L		99	80 - 120
Manganese	500	488		ug/L		98	80 - 120
Molybdenum	1000	1010		ug/L		101	80 - 120
Potassium	10.0	9.72		mg/L		97	80 - 120
Selenium	100	88.1		ug/L		88	80 - 120
Sodium	10.0	9.81		mg/L		98	80 - 120
Zinc	500	482		ug/L		96	80 - 120

Lab Sample ID: MB 500-517073/1-A
Matrix: Water
Analysis Batch: 517287

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		10		ug/L		11/24/19 17:57	11/25/19 20:16	1
Barium	ND		10		ug/L		11/24/19 17:57	11/25/19 20:16	1
Copper	ND		10		ug/L		11/24/19 17:57	11/25/19 20:16	1
Iron	ND	^	200		ug/L		11/24/19 17:57	11/25/19 20:16	1
Cadmium	ND		2.0		ug/L		11/24/19 17:57	11/25/19 20:16	1
Lead	ND		5.0		ug/L		11/24/19 17:57	11/25/19 20:16	1
Manganese	ND		10		ug/L		11/24/19 17:57	11/25/19 20:16	1
Molybdenum	ND		10		ug/L		11/24/19 17:57	11/25/19 20:16	1
Zinc	ND	^	20		ug/L		11/24/19 17:57	11/25/19 20:16	1

Lab Sample ID: MB 500-517073/1-A
Matrix: Water
Analysis Batch: 517424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517073

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	ND		50		ug/L		11/24/19 17:57	11/26/19 11:16	1
Potassium	ND		0.50		mg/L		11/24/19 17:57	11/26/19 11:16	1
Selenium	ND		10		ug/L		11/24/19 17:57	11/26/19 11:16	1
Sodium	ND		1.0		mg/L		11/24/19 17:57	11/26/19 11:16	1

Lab Sample ID: LCS 500-517073/2-A
Matrix: Water
Analysis Batch: 517287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	100	86.5		ug/L		87	80 - 120
Barium	2000	1820		ug/L		91	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 500-517073/2-A
Matrix: Water
Analysis Batch: 517287

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Copper	250	229		ug/L		92	80 - 120
Iron	1000	1100	^	ug/L		110	80 - 120
Cadmium	50.0	45.6		ug/L		91	80 - 120
Lead	100	99.9		ug/L		100	80 - 120
Manganese	500	526		ug/L		105	80 - 120
Molybdenum	1000	931		ug/L		93	80 - 120
Zinc	500	568	^	ug/L		114	80 - 120

Lab Sample ID: LCS 500-517073/2-A
Matrix: Water
Analysis Batch: 517424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517073

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1000	924		ug/L		92	80 - 120
Potassium	10.0	9.44		mg/L		94	80 - 120
Selenium	100	97.9		ug/L		98	80 - 120
Sodium	10.0	9.96		mg/L		100	80 - 120

Lab Sample ID: 500-172766-20 MS
Matrix: Water
Analysis Batch: 515501

Client Sample ID: G44D
Prep Type: Dissolved
Prep Batch: 515216

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	ND		100	95.6		ug/L		96	75 - 125
Barium	45		2000	2000		ug/L		98	75 - 125
Boron	1500		1000	2390		ug/L		92	75 - 125
Cadmium	ND		50.0	50.6		ug/L		100	75 - 125
Manganese	ND		500	494		ug/L		97	75 - 125
Molybdenum	ND		1000	1020		ug/L		102	75 - 125
Potassium	18		10.0	28.1		mg/L		103	75 - 125
Selenium	ND		100	88.2		ug/L		88	75 - 125
Sodium	95		10.0	106	4	mg/L		110	75 - 125
Zinc	ND		500	501		ug/L		99	75 - 125

Lab Sample ID: 500-172766-20 MSD
Matrix: Water
Analysis Batch: 515501

Client Sample ID: G44D
Prep Type: Dissolved
Prep Batch: 515216

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	ND		100	101		ug/L		101	75 - 125	6	20
Barium	45		2000	2010		ug/L		98	75 - 125	0	20
Boron	1500		1000	2420		ug/L		96	75 - 125	1	20
Cadmium	ND		50.0	50.7		ug/L		100	75 - 125	0	20
Manganese	ND		500	497		ug/L		98	75 - 125	1	20
Molybdenum	ND		1000	1020		ug/L		102	75 - 125	1	20
Potassium	18		10.0	28.3		mg/L		105	75 - 125	1	20
Selenium	ND		100	91.8		ug/L		92	75 - 125	4	20
Sodium	95		10.0	105	4	mg/L		93	75 - 125	2	20
Zinc	ND		500	509		ug/L		100	75 - 125	2	20

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-172766-20 DU
Matrix: Water
Analysis Batch: 515501

Client Sample ID: G44D
Prep Type: Dissolved
Prep Batch: 515216

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	ND		ND		ug/L		NC	20
Barium	45		46.2		ug/L		3	20
Boron	1500		1470		ug/L		0.5	20
Cadmium	ND		ND		ug/L		NC	20
Manganese	ND		ND		ug/L		NC	20
Molybdenum	ND		ND		ug/L		NC	20
Potassium	18		18.2		mg/L		2	20
Selenium	ND		ND		ug/L		NC	20
Sodium	95		95.8		mg/L		0.3	20
Zinc	ND		ND		ug/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-515100/12-A
Matrix: Water
Analysis Batch: 515371

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 515100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/13/19 11:15	11/14/19 08:41	1

Lab Sample ID: LCS 500-515100/13-A
Matrix: Water
Analysis Batch: 515371

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 515100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.00	2.14		ug/L		107	80 - 120

Lab Sample ID: 500-172766-12 MS
Matrix: Water
Analysis Batch: 515371

Client Sample ID: G48D
Prep Type: Total/NA
Prep Batch: 515100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		1.00	1.09		ug/L		108	75 - 125

Lab Sample ID: 500-172766-12 MSD
Matrix: Water
Analysis Batch: 515371

Client Sample ID: G48D
Prep Type: Total/NA
Prep Batch: 515100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		1.00	0.947		ug/L		94	75 - 125	14	20

Lab Sample ID: 500-172766-12 DU
Matrix: Water
Analysis Batch: 515371

Client Sample ID: G48D
Prep Type: Total/NA
Prep Batch: 515100

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	ND		ND		ug/L		NC	20

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 500-516163/12-A
Matrix: Water
Analysis Batch: 516412

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 516163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		11/19/19 10:10	11/20/19 08:50	1

Lab Sample ID: LCS 500-516163/13-A
Matrix: Water
Analysis Batch: 516412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.00	1.87		ug/L		94	80 - 120

Method: 2540 C - Total Dissolved Solids - SM 20th Ed.

Lab Sample ID: MB 500-513817/1
Matrix: Water
Analysis Batch: 513817

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			11/06/19 05:54	1

Lab Sample ID: LCS 500-513817/2
Matrix: Water
Analysis Batch: 513817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	260		mg/L		104	80 - 120

Lab Sample ID: 500-172766-1 MS
Matrix: Water
Analysis Batch: 513817

Client Sample ID: G41D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	540		250	826		mg/L		116	75 - 125

Lab Sample ID: 500-172766-1 DU
Matrix: Water
Analysis Batch: 513817

Client Sample ID: G41D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	540		516		mg/L		4	5

Lab Sample ID: 500-172766-2 DU
Matrix: Water
Analysis Batch: 513817

Client Sample ID: G41S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	740		778		mg/L		5	5

Method: 2540 C - Total Dissolved Solids - SM 20th Ed. (Continued)

Lab Sample ID: MB 500-514051/1
Matrix: Water
Analysis Batch: 514051

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			11/07/19 07:51	1

Lab Sample ID: LCS 500-514051/2
Matrix: Water
Analysis Batch: 514051

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	258		mg/L		103	80 - 120

Lab Sample ID: 500-172766-9 MS
Matrix: Water
Analysis Batch: 514051

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1100		250	1350	4	mg/L		102	75 - 125

Lab Sample ID: 500-172766-9 DU
Matrix: Water
Analysis Batch: 514051

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1070		mg/L		2	5

Lab Sample ID: 500-172766-10 DU
Matrix: Water
Analysis Batch: 514051

Client Sample ID: G30D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	510		516		mg/L		2	5

Lab Sample ID: MB 500-515001/1
Matrix: Water
Analysis Batch: 515001

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			11/13/19 01:21	1

Lab Sample ID: LCS 500-515001/2
Matrix: Water
Analysis Batch: 515001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	294		mg/L		118	80 - 120

Lab Sample ID: 500-172766-11 MS
Matrix: Water
Analysis Batch: 515001

Client Sample ID: R32S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	820		250	1110		mg/L		117	75 - 125

Method: 2540 C - Total Dissolved Solids - SM 20th Ed.

Lab Sample ID: 500-172766-11 DU
Matrix: Water
Analysis Batch: 515001

Client Sample ID: R32S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	820			792		mg/L				4	5

Lab Sample ID: 500-172766-12 DU
Matrix: Water
Analysis Batch: 515001

Client Sample ID: G48D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	700			700		mg/L				0.6	5

Lab Sample ID: MB 500-516292/1
Matrix: Water
Analysis Batch: 516292

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			11/19/19 21:56	1

Lab Sample ID: LCS 500-516292/2
Matrix: Water
Analysis Batch: 516292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	264		mg/L		106	80 - 120		

Lab Sample ID: MB 500-516511/1
Matrix: Water
Analysis Batch: 516511

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10		mg/L			11/21/19 02:39	1

Lab Sample ID: LCS 500-516511/2
Matrix: Water
Analysis Batch: 516511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	264		mg/L		106	80 - 120		

Lab Sample ID: 500-172766-27 DU
Matrix: Water
Analysis Batch: 516511

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	830			832		mg/L				0.2	5

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 500-515443/3
Matrix: Water
Analysis Batch: 515443

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50		mg/L			11/14/19 19:30	1

Lab Sample ID: LCS 500-515443/4
Matrix: Water
Analysis Batch: 515443

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.79		mg/L		96	80 - 120

Lab Sample ID: MB 500-515641/3
Matrix: Water
Analysis Batch: 515641

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.20		mg/L			11/15/19 15:21	1

Lab Sample ID: LCS 500-515641/4
Matrix: Water
Analysis Batch: 515641

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.72		mg/L		94	80 - 120

Lab Sample ID: MB 500-517651/3
Matrix: Water
Analysis Batch: 517651

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50		mg/L			11/29/19 11:31	1

Lab Sample ID: LCS 500-517651/4
Matrix: Water
Analysis Batch: 517651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.04		mg/L		101	80 - 120

Lab Sample ID: 500-172766-4 MS
Matrix: Water
Analysis Batch: 515443

Client Sample ID: G42S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	ND		2.50	ND		mg/L		90	80 - 120

Lab Sample ID: 500-172766-4 MSD
Matrix: Water
Analysis Batch: 515443

Client Sample ID: G42S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	ND		2.50	ND		mg/L		91	80 - 120	1	15

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: 500-172766-6 MS
Matrix: Water
Analysis Batch: 515443

Client Sample ID: G33S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	60		25.0	87.4		mg/L		110	80 - 120		

Lab Sample ID: 500-172766-6 MSD
Matrix: Water
Analysis Batch: 515443

Client Sample ID: G33S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	60		25.0	87.3		mg/L		109	80 - 120	0	15

Lab Sample ID: 500-172766-23 MS
Matrix: Water
Analysis Batch: 515641

Client Sample ID: G31D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	ND		2.50	ND		mg/L		93	80 - 120		

Lab Sample ID: 500-172766-23 MSD
Matrix: Water
Analysis Batch: 515641

Client Sample ID: G31D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	ND		2.50	ND		mg/L		95	80 - 120	2	15

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-515426/9
Matrix: Water
Analysis Batch: 515426

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/14/19 14:42	1

Lab Sample ID: LCS 500-515426/10
Matrix: Water
Analysis Batch: 515426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	54.1		mg/L		108	85 - 115		

Lab Sample ID: MB 500-516025/12
Matrix: Water
Analysis Batch: 516025

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/16/19 14:25	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-516025/13
Matrix: Water
Analysis Batch: 516025

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	56.6		mg/L		113	85 - 115		

Lab Sample ID: MB 500-517655/63
Matrix: Water
Analysis Batch: 517655

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		2.0		mg/L			11/27/19 12:34	1

Lab Sample ID: LCS 500-517655/64
Matrix: Water
Analysis Batch: 517655

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	51.0		mg/L		102	85 - 115		

Lab Sample ID: 500-172766-8 MS
Matrix: Water
Analysis Batch: 515426

Client Sample ID: R16D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	110		50.0	167		mg/L		117	75 - 125		

Lab Sample ID: 500-172766-8 MSD
Matrix: Water
Analysis Batch: 515426

Client Sample ID: R16D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	165		mg/L		112	75 - 125	2	20

Lab Sample ID: 500-172766-9 MS
Matrix: Water
Analysis Batch: 515426

Client Sample ID: G30S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	210		50.0	252	4	mg/L		82	75 - 125		

Lab Sample ID: 500-172766-9 MSD
Matrix: Water
Analysis Batch: 515426

Client Sample ID: G30S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	210		50.0	252	4	mg/L		82	75 - 125	0	20

Lab Sample ID: 500-172766-23 MS
Matrix: Water
Analysis Batch: 516025

Client Sample ID: G31D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	15		50.0	65.7		mg/L		102	75 - 125		

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 500-172766-23 MSD
Matrix: Water
Analysis Batch: 516025

Client Sample ID: G31D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	15		50.0	67.0		mg/L		105	75 - 125	2	20

Lab Sample ID: 500-172766-24 MS
Matrix: Water
Analysis Batch: 517655

Client Sample ID: G31S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	210		50.0	249	4	mg/L		70	75 - 125

Lab Sample ID: 500-172766-24 MSD
Matrix: Water
Analysis Batch: 517655

Client Sample ID: G31S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	210		50.0	246	4	mg/L		64	75 - 125	1	20

Lab Sample ID: 500-172766-29 MS
Matrix: Water
Analysis Batch: 517655

Client Sample ID: G38S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	67		50.0	105		mg/L		76	75 - 125

Lab Sample ID: 500-172766-29 MSD
Matrix: Water
Analysis Batch: 517655

Client Sample ID: G38S
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	67		50.0	108		mg/L		82	75 - 125	3	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-513700/3
Matrix: Water
Analysis Batch: 513700

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10		mg/L			11/05/19 12:02	1

Lab Sample ID: LCS 500-513700/4
Matrix: Water
Analysis Batch: 513700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.6		mg/L		106	80 - 120

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: MB 500-515692/31
Matrix: Water
Analysis Batch: 515692

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10		mg/L			11/15/19 23:02	1

Lab Sample ID: LCS 500-515692/32
Matrix: Water
Analysis Batch: 515692

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.1		mg/L		101	80 - 120

Lab Sample ID: MB 500-516975/31
Matrix: Water
Analysis Batch: 516975

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.10		mg/L			11/22/19 21:28	1

Lab Sample ID: LCS 500-516975/32
Matrix: Water
Analysis Batch: 516975

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	9.77		mg/L		98	80 - 120

Lab Sample ID: 500-172766-1 MS
Matrix: Water
Analysis Batch: 513700

Client Sample ID: G41D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	3.1		5.00	8.46		mg/L		106	75 - 125

Lab Sample ID: 500-172766-1 MSD
Matrix: Water
Analysis Batch: 513700

Client Sample ID: G41D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	3.1		5.00	8.54		mg/L		108	75 - 125	1	20

Lab Sample ID: 500-172766-8 MS
Matrix: Water
Analysis Batch: 516975

Client Sample ID: R16D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.25		5.00	5.11		mg/L		97	75 - 125

Lab Sample ID: 500-172766-8 MSD
Matrix: Water
Analysis Batch: 516975

Client Sample ID: R16D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.25		5.00	5.18		mg/L		99	75 - 125	1	20

Method: SM 4500 NH3 G - Ammonia

Lab Sample ID: MB 500-516229/1-A
Matrix: Water
Analysis Batch: 516531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 516229

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		11/20/19 12:40	11/20/19 15:34	1

Lab Sample ID: LCS 500-516229/2-A
Matrix: Water
Analysis Batch: 516531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516229

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.60		mg/L		104	80 - 120

Lab Sample ID: MB 500-516456/1-A
Matrix: Water
Analysis Batch: 516668

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 516456

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		11/21/19 09:45	11/21/19 12:16	1

Lab Sample ID: LCS 500-516456/2-A
Matrix: Water
Analysis Batch: 516668

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516456

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.58		mg/L		103	80 - 120

Lab Sample ID: MB 500-516629/1-A
Matrix: Water
Analysis Batch: 517184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 516629

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		11/24/19 15:00	11/25/19 08:33	1

Lab Sample ID: LCS 500-516629/2-A
Matrix: Water
Analysis Batch: 517184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516629

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.57		mg/L		103	80 - 120

Lab Sample ID: MB 500-516891/1-A
Matrix: Water
Analysis Batch: 517237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 516891

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.20		mg/L		11/25/19 09:35	11/25/19 12:26	1

Lab Sample ID: LCS 500-516891/2-A
Matrix: Water
Analysis Batch: 517237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 516891

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.47		mg/L		99	80 - 120

Method: SM 4500 NH3 G - Ammonia

Lab Sample ID: 500-172766-1 MS
Matrix: Water
Analysis Batch: 516668

Client Sample ID: G41D
Prep Type: Dissolved
Prep Batch: 516456

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.74		2.50	3.29		mg/L		102	75 - 125

Lab Sample ID: 500-172766-1 MSD
Matrix: Water
Analysis Batch: 516668

Client Sample ID: G41D
Prep Type: Dissolved
Prep Batch: 516456

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.74		2.50	3.25		mg/L		100	75 - 125	1	20

Lab Sample ID: 500-172766-7 MS
Matrix: Water
Analysis Batch: 517184

Client Sample ID: G20S
Prep Type: Dissolved
Prep Batch: 516629

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.29		2.50	2.72		mg/L		97	75 - 125

Lab Sample ID: 500-172766-7 MSD
Matrix: Water
Analysis Batch: 517184

Client Sample ID: G20S
Prep Type: Dissolved
Prep Batch: 516629

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.29		2.50	2.83		mg/L		101	75 - 125	4	20

Method: SM 5310C - Organic Carbon, Dissolved (DOC)

Lab Sample ID: MB 500-515061/8
Matrix: Water
Analysis Batch: 515061

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DOC Dup	ND		1.0		mg/L			11/12/19 15:32	1

Lab Sample ID: LCS 500-515061/9
Matrix: Water
Analysis Batch: 515061

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DOC Result 1	10.0	9.70		mg/L		97	80 - 120
DOC Result 2	10.0	9.92		mg/L		99	80 - 120
DOC Dup	10.0	9.81		mg/L		98	80 - 120

Lab Sample ID: 500-172766-1 MS
Matrix: Water
Analysis Batch: 515061

Client Sample ID: G41D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DOC Result 1	1.1		10.0	10.9		mg/L		98	75 - 125
DOC Result 2	ND		10.0	10.9		mg/L		100	75 - 125
DOC Dup	ND		10.0	10.9		mg/L		99	75 - 125

Method: SM 5310C - Organic Carbon, Dissolved (DOC) (Continued)

Lab Sample ID: 500-172766-1 MSD
Matrix: Water
Analysis Batch: 515061

Client Sample ID: G41D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DOC Result 1	1.1		10.0	10.9		mg/L		99	75 - 125	0	20
DOC Result 2	ND		10.0	10.9		mg/L		101	75 - 125	0	20
DOC Dup	ND		10.0	10.9		mg/L		100	75 - 125	0	20

Lab Sample ID: MB 500-516901/8
Matrix: Water
Analysis Batch: 516901

Client Sample ID: Method Blank
Prep Type: Dissolved

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DOC Dup	ND		1.0		mg/L			11/21/19 15:38	1

Lab Sample ID: LCS 500-516901/9
Matrix: Water
Analysis Batch: 516901

Client Sample ID: Lab Control Sample
Prep Type: Dissolved

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
DOC Result 1	10.0	9.27		mg/L		93	80 - 120
DOC Result 2	10.0	9.36		mg/L		94	80 - 120
DOC Dup	10.0	9.32		mg/L		93	80 - 120

Lab Sample ID: 500-172766-16 MS
Matrix: Water
Analysis Batch: 516901

Client Sample ID: R08D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
DOC Result 1	2.5		10.0	12.3		mg/L		98	75 - 125
DOC Result 2	2.3		10.0	12.3		mg/L		100	75 - 125
DOC Dup	2.4		10.0	12.3		mg/L		99	75 - 125

Lab Sample ID: 500-172766-16 MSD
Matrix: Water
Analysis Batch: 516901

Client Sample ID: R08D
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DOC Result 1	2.5		10.0	12.4		mg/L		99	75 - 125	1	20
DOC Result 2	2.3		10.0	12.4		mg/L		101	75 - 125	1	20
DOC Dup	2.4		10.0	12.4		mg/L		100	75 - 125	1	20

Chain of Custody Record

388787

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name:	☐ 1 week			Job / SDG No.:
Site: Lincoln Stone Quarry - 4&19	☐ 2 days			500-172766
PO# Routine + PAHs GW	☐ 1 day			

500-172766 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Ca	Diss. Metals	Diss. TOC	TDS, Total NO2	Diss. NO2, SO4, Fl, Cl	Total NO3 - NO2	Diss. Ammonia, NO3-NO2	PAHs	Sample Specific Notes:
G41D	11/01/19	1026		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
G41S	11/01/19	1120		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
G33D	11/01/19	1410		W	10			✓	✓	✓	✓	✓	✓	✓	✓	

3321-1

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 4.7 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	11/01/19 1520			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL-CHI	11/1/19 1520

Chain of Custody Record

388788

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

500-172766 TAL-8210

Client Contact	Project Manager: Erik Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Lincoln Stone Quarry - 4019	☐ 1 week			Job / SDG No.:
Site: Routine GW	☐ 2 days			
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cr	Diss. Metals	Diss. TOC	TDS, Total NO2	Diss. NO2, SO4, Fl, Cl	Total NO3 - NO2	Diss. Ammonia, NO2, NO3	PAHs	500-172766 COC	Sample Specific Notes:
4 G42S	11/04/19	0930		W	10			-	-	-	-	-	-	-	-		
5 G42D	11/04/19	1129		W	10			-	-	-	-	-	-	-	-		
6 G33S	11/04/19	1427		W	10			-	-	-	-	-	-	-	-		

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 3.6 Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: TAL	Date/Time: 11/04/19 1613	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA-Alt	Date/Time: 11/4/19 1613

Chain of Custody Record 388789

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	____ of ____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Lincoln Stone Quarry -	☐ 1 week			
Site: 4Q19 Routine GW	☐ 2 days			Job / SDG No.:
PO #	☐ 1 day			500-172766

500-172766 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cd	Diss. Metals	Diss. TOC	TDS, Total NO2	Diss. NO2, Sol. Fl, Cl	Total NO3-NO2	Diss. Ammonia, NO3-NO2	PAHs	Sample Specific Notes:
G20S	11/05/19	0934		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
R16D	11/05/19	1337		W	10			✓	✓	✓	✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5.4 48 ot

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: TAL	Date/Time: 11/05/19 1520	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: TA-Ctrt	Date/Time: 11/5/19 1520

Chain of Custody Record

388790

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Long	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	____ of ____ COCs
Address:	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone:	TAT if different from Below ____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Lincoln Stone Quarry - 4019	☐ 1 week			
Site: Routine GW + PAHs	☐ 2 days			Job / SDG No.: 500-172766
P.O.#	☐ 1 day			

500-172766 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cu	Dissolved Metals	TOC	Dissolved TDS, Total NO2	Dissolved NO2, SO4, Fl, Cl	Total NO3-N	Dissolved Ammonia, NO3-NO2	PAHs	Sample Specific Notes:
9 GW05	11/06/19	1018		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
10 GW0D	11/06/19	1254		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
11 RW25	11/06/19	1419		W	10			✓	✓	✓	✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

5.3 48hr.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd:_____ Corr'd:_____	Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TRC	11/06/19 1527			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA-CHI	11/6/19 1527

Chain of Custody Record 388791

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Lincoln Stone Quarry - 4919	☐ 1 week			
Site: Routine GW + PAHs	☐ 2 days			Job / SDG No.: 500-172766
P O #	☐ 1 day			

500-172766 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cu, Fe, Mn, Zn	Diss. Metals	Diss. TOC	TDS, Total NO2	Diss. NO2, SO4, Fl, Cl	Total NO3-NO2	Diss. Ammonia, NO3-NO2	PAHs	Sample Specific Notes:
12	G48D	11/07/19	0923		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
13	G48S	11/07/19	1041		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
14	G47S	11/07/19	1300		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
15	G47D	11/07/19	1400		W	10			✓	✓	✓	✓	✓	✓	✓	✓	
									12/9/19								

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

1.9 → 2.9, 3.4 48hr.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TAL	11/07/19 1527			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL-ART	Date/Time: 11/7/19 1527

Chain of Custody Record 387591

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

500-172766 COC

Client Contact	Project Manager: Erik Long	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Lincoln Stone Quarry - 4Q19	☐ 1 week			Job / SDG No.: 500-172766
Site: Routine GW + PAHs	☐ 2 days			
P O #	☐ 1 day			Sample Specific Notes:

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cr	Diss. Metals	Diss. TOC	TDS, Total NO2	Diss. NO2, SO4, F, Cl	Total NO3-NO2	Diss. Ammonia, NO3-NO2	PAHs
16	R08D	11/11/19	1056		W	10			-	-	-	-	-	-	-	-
17	R08S	11/11/19	1230		W	10			-	-	-	-	-	-	-	-
18	G39S	11/11/19	1413		W	10			-	-	-	-	-	-	-	-

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company: TAL	Date/Time: 11/11/19 1544	Received by:	Company: TA	Date/Time: 11-11-19 1544
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 387523

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Lincoln Stone Quarry-4Q19	☐ 1 week			
Site: Routine GW + PAHs	☐ 2 days			Job / SDG No.: 500-172766
PO #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cu	Diss. Metals	Diss. TOC	TDS, Total NO2	Diss. NO2, SO4 Fl, Cl	Total NO3-NO2	Diss. Arsenic, NO3-NO2	PAHs
19 G445	11/12/19	1330		GW	10			-	-	-	-	-	-	-	-
20 G44D	11/12/19	1419		GW	10			-	-	-	-	-	-	-	-

500-172766 COC

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 5.1 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TAL	11/12/19 1525			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA-CHI	Date/Time: 11/12/19 1525

Chain of Custody Record

387524 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Lincoln Stone Quarry-4619	☐ 1 week			Job / SDG No.: 500-172766
Site: Routine GW + PAHs	☐ 2 days			
P O #	☐ 1 day			

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cr	Diss. Metals	Diss. TOC	TDS, Total NO2	Diss. NO2, Sulf, Fl, Cl	Total NO3-NO2	Diss. Ammonia, NO3-NO2	PAHs	Total Ba Cr Pb Hg	500-172766 COC	Sample Specific Notes:
21	G46D	11/13/19	1020		W	10			/	-	-	-	-	-	-	-	X		
22	G46S	11/13/19	1142		W	10			/	-	-	-	-	-	-	-	X		
23	G31D	11/13/19	1311		W	10			-	-	-	-	-	-	-	-			
24	G31S	11/13/19	1414		W	10			-	-	-	-	-	-	-	-			

12/2/19 JF

Preservation Used: 1= Ice, 2= HCl, 3= H2SO4, 4=HNO3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

4.6, 3.7

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TAL	11/13/19 @ 1522			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA-Cht	11/13/19 1522

Chain of Custody Record

387525

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Erik Lang	Site Contact:	Date:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:
Address:	Analysis Turnaround Time		
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS		
Phone:	TAT if different from Below _____		
Fax:	☐ 2 weeks		
Project Name: Lincoln Stone Quarry - 4Q19	☐ 1 week		
Site: Routine GW + PAHs	☐ 2 days		
PO #	☐ 1 day		

500-172766 COC

COC No: _____ of _____ COCs

Sampler:

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Job / SDG No.: 500-172766

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Total Ba, Cu	Diss. Metals	Diss. TDL	Diss. Total Nor	TDS, Total NO2, SO4, Fl, Cl	Diss. NO2, SO4, Fl, Cl	Total NO3 - NO2	Diss. Ammonia, NO3-NO2	PAHs	Levels Only	Total Ba Cu Fe Pb Hg	Sample Specific Notes:
25	S501	11/14/19	0855		—	—														Settling Pond Frozen, No Samples
26	P405	11/14/19	0910		—													✓		
27	G455	11/14/19	0951		W	10			✓	✓	✓	✓	✓	✓	✓	✓	✓			
28	G381D	11/14/19	1126		W	10			✓	✓	✓	✓	✓	✓	✓	✓	✓		X	
29	G385	11/14/19	1217		W	10		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		X	

12/11/19

Preservation Used: 1= Ice, 2= HCl, 3= H_2SO_4, 4=HNO_3, 5=NaOH, 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

4.2 48qt.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____		
Relinquished by:	Company: TAL	Date/Time: 11/14/19 @ 1340	Received by:	Company: TA	Date/Time: 11-14-19 0945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Login Sample Receipt Checklist

Client: Midwest Generation EME LLC

Job Number: 500-172766-1

Login Number: 172766
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7,3.6,5.4,5.3,2.9,3.4,5.9,5.1,4.6,3.7,4.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Midwest Generation EME LLC
Job ID: 500-172766-1
Project/Site: Lincoln Stone Quarry - 4Q19 Routine

Laboratory: Eurofins TestAmerica, Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	04-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Field Sampling		Water	Depth to Water (ft from MP)
Field Sampling		Water	Depth to water from land surface
Field Sampling		Water	Elevation of well (ft from MP)
Field Sampling		Water	Field pH
Field Sampling		Water	Field Temperature
Field Sampling		Water	Ground Water Elevation
Field Sampling		Water	Specific Conductance
Field Sampling		Water	Well bottom elevation

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TestAmerica Chicago
2417 Bond Street
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID:
Facility: **Midwest Generation**
Job #:

Date : 10/21/19

Sampling Method: Levels Only

Well	Water Level	Time	Well	Water Level	Time
G31S	26.89	0900	G46WT	25.42	1055
G31D	35.61	0903	G44S	79.96	1103
G41S	26.25	0910	G44D	88.66	1106
G41D	27.92	0913	G39S	93.48	1112
G33S	25.64	0918	G48WT	37.59	1150
G33D	25.91	0921	G48S	98.30	1153
G42S	12.01	0926	G48D	111.06	1156
G42D	16.46	0929	G47WT	26.72	1240
R32S	19.09	0937	G47S	91.98	1243
G30S	1.53	0942	G47D	108.25	1246
G30D	14.83	0945	T02S	129.36	1255
R16WT	45.65	0953	T03S	133.84	1315
R16D	62.73	0956	T01S	113.37	1340
G20S	41.82	1000	T04S	152.07	1330
G45S	62.38	1007	G38S	93.02	1127
G45D	92.55	1010	G38D	107.55	1130
G45WT	57.89	1013	T05S	117.14	1412
P40S	~~49.40~~ / ~~21.50~~	inc. 58.15 / 124.34	T06S	112.43	1406
R08S	66.78	1025	T07S	120.74	1304
R08D	77.25	1028	T08S	125.15	1300
A08WT	39.55	1031	T09S	101.91	1400
P105	41.40 / 21.50	1042	T10S	117.72	1310
G46S	100.01	1049	T11S	50.88	1352
G46D	101.59	1052			

Updated: 01/24/14

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 2

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G41D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/01/19 Start Purge: 1005 (2400 Hr. Clock) End Purge: 1026

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.54

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.13 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.76 (ft./msl)
Water Level 25.51 (ft.)
Ground Water Elev. 510.25 (ft./msl)
Well Bottom Elevation *378.43 (ft./msl)

	1st	2nd	Final	
pH	7.84	7.86	7.86	(std.)
SC	718	720	720	(umhos/cm)
Temp.	13.26	13.26	13.26	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 35°F, Sunny, SW winds e 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 25.51 - 2.13 = 23.38 (ft.)
Levels were taken on 11/01/19 @ 0950 .

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G41S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766.2

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/01/19 Start Purge: 1100 (2400 Hr. Clock) End Purge: 1120

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.29 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.86 (ft./msl)
Water Level 24.00 (ft.)
Ground Water Elev. 511.86 (ft./msl)
Well Bottom Elevation *453.96 (ft./msl)

	1st	2nd	Final	
pH	7.74	7.71	7.71	(std.)
SC	881	884	884	(umhos/cm)
Temp.	11.69	11.67	11.67	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 36°F, Fair, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 24.00 - 2.29 = 21.71 (ft.)
Levels were taken on 11/01/19 @ 1050.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/01/19 Start Purge: 1350 (2400 Hr. Clock) End Purge: 1410

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.52

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.35 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.20 (ft./msl)
Water Level 24.35 (ft.)
Ground Water Elev. 511.85 (ft./msl)
Well Bottom Elevation *369.10 (ft./msl)

	1st	2nd	Final	
pH	7.65	7.65	7.65	(std.)
SC	658	661		(umhos/cm)
Temp.	12.94	12.95	12.95	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 45°F, Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 24.35 - 2.35 = 22.00 (ft.)
Levels were taken on 11/01/19 @ 1345.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G42S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/04/19 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0930

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.29

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 1.99 (ft)
Ref. Measuring Pt. TIC
Well Elevation *528.56 (ft./msl)
Water Level 10.11 (ft.)
Ground Water Elev. 518.45 (ft./msl)
Well Bottom Elevation *451.26 (ft./msl)

	1st	2nd	Final	
pH	7.62	7.66	7.66	(std.)
SC	652	657	657	(umhos/cm)
Temp.	13.23	13.24	13.24	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 49°F, Fair, W winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 10.11 - 1.99 = 8.12 (ft.)
Levels were taken on 11/04/19 @ 0900.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G42D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172716-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/04/19 Start Purge: 1110 (2400 Hr. Clock) End Purge: 1129

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.25

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.23 (ft)

Ref. Measuring Pt. TIC

Well Elevation *528.83 (ft./msl)

Water Level 14.13 (ft.)

Ground Water Elev. 514.70 (ft./msl)

Well Bottom Elevation *376.55 (ft./msl)

	1st	2nd	Final	
pH	7.94	7.91	7.91	(std.)
SC	855	859	859	(umhos/cm)
Temp.	13.97	13.93	13.93	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 51°F, Sunny, SW under 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 14.13 - 2.23 = 11.90 (ft.)

Levels were taken on 11/04/19 @ 1105.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/04/19 Start Purge: 1410 (2400 Hr. Clock) End Purge: 1427

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.44

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 1.73 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.66 (ft./msl)
Water Level 24.09 (ft.)
Ground Water Elev. 511.57 (ft./msl)
Well Bottom Elevation *452.72 (ft./msl)

	1st	2nd	Final	
pH	7.56	7.59	7.59	(std.)
SC	628	627	627	(umhos/cm)
Temp.	13.10	13.11	13.11	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Gray, Slight Turbidity, NO odor
Weather Conditions: 52°F, Mostly Cloudy, W winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 24.09 - 1.73 = 22.36 (ft)
Levels were taken on 11/04/19 @ 1405.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/05/19 Start Purge: 0920 (2400 Hr. Clock) End Purge: 0934

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.09

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.91 (ft./msl)
Water Level 39.52 (ft.)
Ground Water Elev. 541.39 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.90	7.88	7.88	(std.)
SC	563	568	568	(umhos/cm)
Temp.	12.20	12.17	12.17	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 40°F, Partly Cloudy, W winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 39.52 - 2.78 = 36.74 (ft.)
Levels were taken on 11/05/19 @ 0905.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R16D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/05/19 Start Purge: 1320 (2400 Hr. Clock) End Purge: 1337

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.55

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.73 (ft)

Ref. Measuring Pt. TIC

Well Elevation *581.09 (ft./msl)

Water Level 54.71 (ft.)

Ground Water Elev. 526.38 (ft./msl)

Well Bottom Elevation *385.45 (ft./msl)

	1st	2nd	Final	
pH	7.50	7.49	7.49	(std.)
SC	1111	1106	1106	(umhos/cm)
Temp.	13.06	13.05	13.05	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 43°F, Sunny, W winds e 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 54.71 - 2.73 = 51.98 (ft.)

Levels were taken on 11/05/19 @ 1315.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172746-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/06/19 Start Purge: 1000 (2400 Hr. Clock) End Purge: 1018

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.70 (ft./msl)
Water Level 1.34 (ft.)
Ground Water Elev. 523.36 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	8.00	7.99	7.99	(std.)
SC	1469	1476	1476	(umhos/cm)
Temp.	9.49	9.51	9.51	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 48°F, Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.34 - 2.31 = -0.97 (ft.)
Levels were taken on 11/06/19 @ 0950.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/06/19 Start Purge: 1240 (2400 Hr. Clock) End Purge: 1254

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.54

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.42 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.81 (ft./msl)
Water Level 13.04 (ft.)
Ground Water Elev. 511.77 (ft./msl)
Well Bottom Elevation *389.30 (ft./msl)

	1st	2nd	Final	
pH	7.74	7.71	7.71	(std.)
SC	689	691	691	(umhos/cm)
Temp.	11.37	11.40	11.40	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 57°F, Partly Cloudy, SW winds @ 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 13.04 - 2.42 = 10.62 (ft.)
Levels were taken on 11/06/19 @ 1235.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-11

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/06/19 Start Purge: 1400 (2400 Hr. Clock) End Purge: 1419

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.98

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.03 (ft)
Ref. Measuring Pt. TIC
Well Elevation *536.99 (ft./msl)
Water Level 16.54 (ft.)
Ground Water Elev. 520.45 (ft./msl)
Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.47	7.45	7.45	(std.)
SC	796	785	785	(umhos/cm)
Temp.	12.01	12.03	12.03	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 58°F, Cloudy, SW wind 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 16.54 - 2.03 = 14.51 (Ft.)
Levels were taken on 11/06/19 @ 1350.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-12

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/07/19 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0923

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.70

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.75 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.98 (ft./msl)
Water Level 109.60 (ft.)
Ground Water Elev. 511.38 (ft./msl)
Well Bottom Elevation *393.11 (ft./msl)

	1st	2nd	Final	
pH	7.23	7.22	7.22	(std.)
SC	899	903	903	(umhos/cm)
Temp.	10.03	10.03	10.03	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 27°F, Sunny, NW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 109.60 - 2.75 = 106.85 (ft)
Levels were taken on 11/07/19 @ 0900.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-13

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/07/19 Start Purge: 1025 (2400 Hr. Clock) End Purge: 1041

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.62

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.78 (ft./msl)
Water Level 97.23 (ft.)
Ground Water Elev. 523.55 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	7.85	7.83	7.83	(std.)
SC	1,355	1,340	1,340	(umhos/cm)
Temp.	10.80	10.81	10.81	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 29°F, Sunny, NW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 97.23 - 2.45 = 94.78 (ft.)
Levels were taken on 11/07/19 @ 1020.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-14

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/07/19 Start Purge: 1245 (2400 Hr. Clock) End Purge: 1300

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.50 (ft)

Ref. Measuring Pt. TIC

Well Elevation *612.10 (ft./msl)

Water Level 89.55 (ft.)

Ground Water Elev. 522.55 (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	8.41	8.39	8.39	(std.)
SC	1,487	1,481	1,481	(umhos/cm)
Temp.	10.55	10.51	10.51	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 31°F, Sunny, NW winds e 5-10 mpl

Other: *Reference Measurement

Depth To Water from L.S. = 89.55 - 2.50 = 87.05 (ft.)

Levels were taken on 11/07/19 @ 1240.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-15

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/07/19 Start Purge: 1345 (2400 Hr. Clock) End Purge: 1400

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.29 (ft./msl)
Water Level 107.40 (ft.)
Ground Water Elev. 504.89 (ft./msl)
Well Bottom Elevation *384.69 (ft./msl)

	1st	2nd	Final	
pH	7.53	7.50	7.50	(std.)
SC	733	732	732	(umhos/cm)
Temp.	10.56	10.50	10.50	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 32°F, Sunny, NW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 107.40 - 2.45 = 104.95 (ft.)
Levels were taken on 11/07/19 @ 1340.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172706-16

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/11/19 Start Purge: 1040 (2400 Hr. Clock) End Purge: 1056

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.41

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.66 (ft)

Ref. Measuring Pt. TIC

Well Elevation *578.01 (ft./msl)

Water Level 76.76 (ft.)

Ground Water Elev. 501.25 (ft./msl)

Well Bottom Elevation *371.07 (ft./msl)

	1st	2nd	Final	
pH	6.98	6.99	6.99	(std.)
SC	1,041	1,033	1,033	(umhos/cm)
Temp.	8.56	8.55	8.55	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 25°F, Snow Shower, NW wind 15-20 mph

Other: *Reference Measurement (Well ID updated 11-25-2015)

Depth To Water from L.S. = 76.76 - 2.66 = 74.10 (ft)

Levels were taken on 11/11/19 @ 1020.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-17

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/11/19 Start Purge: 1215 (2400 Hr. Clock) End Purge: 1230

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.68

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.62 (ft./msl)
Water Level 64.61 (ft.)
Ground Water Elev. 514.01 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.90	7.91	7.91	(std.)
SC	936	939	939	(umhos/cm)
Temp.	9.95	9.96	9.96	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 24°F, Snow Shower, NW winds 10-15 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 64.61 - 2.55 = 62.06 (ft.)
Levels were taken on 11/11/19 @ 1210.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G39S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-18

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/11/19 Start Purge: 1355 (2400 Hr. Clock) End Purge: 1413

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.93

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation *598.85 (ft./msl)

Water Level 91.52 (ft.)

Ground Water Elev. 507.33 (ft./msl)

Well Bottom Elevation *454.15 (ft./msl)

	1st	2nd	Final	
pH	7.78	7.78	7.78	(std.)
SC	768	765	765	(umhos/cm)
Temp.	2.79	2.75	2.75	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, Slight Turbidity, No Odor

Weather Conditions: 24°F, Snow Shower, NW winds 15-20 mph

Other: *Reference Measurement

Depth To Water from L.S. = 91.52 - 2.08 = 89.44 (ft.)

Levels were taken on 11/11/19 @ 1340.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172716le-19

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/12/19 Start Purge: 1310 (2400 Hr. Clock) End Purge: 1330

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.65

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.53 (ft./msl)
Water Level 78.43 (ft.)
Ground Water Elev. 508.10 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.23	7.22	7.22	(std.)
SC	928	932	932	(umhos/cm)
Temp.	9.65	9.67	9.67	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 19°F, Sunny, NW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 78.43 - 2.18 = 76.25 (ft.)
Levels were taken on 11/12/19 @ 1300.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-20

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/12/19 Start Purge: 1405 (2400 Hr. Clock) End Purge: 1419

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.04 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.65 (ft./msl)
Water Level 88.70 (ft.)
Ground Water Elev. 497.95 (ft./msl)
Well Bottom Elevation *377.81 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.36	7.36	(std.)
SC	795	793	793	(umhos/cm)
Temp.	11.22	11.21	11.21	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 190F, Sunny, NW winds e 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 88.70 - 2.04 = 86.66 (ft)
Levels were taken on 11/12/19 @ 1400.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-21

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/13/19 Start Purge: 1000 (2400 Hr. Clock) End Purge: 1020

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.60 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.25 (ft./msl)
Water Level 101.60 (ft.)
Ground Water Elev. 499.65 (ft./msl)
Well Bottom Elevation *373.79 (ft./msl)

	1st	2nd	Final	
pH	7.44	7.42	7.42	(std.)
SC	753	754	754	(umhos/cm)
Temp.	7.87	7.92		(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 21°F, Cloudy, S winds e 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 101.60 - 2.60 = 99.00 (ft.)
Levels were taken on 11/13/19 @ 0950.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-22

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/13/19 Start Purge: 1125 (2400 Hr. Clock) End Purge: 1142

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.43 (ft./msl)

Water Level 97.60 (ft.)

Ground Water Elev. 503.83 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.64	7.68	7.68	(std.)
SC	1199	1199	1199	(umhos/cm)
Temp.	10.69	10.72	10.72	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, Slight Turbidity, No Odor

Weather Conditions: 23°F, Sunny, S winds @ 15-20 mph

Other: *Reference Measurement

Depth To Water from L.S. = 97.60 - 2.70 = 94.90 (ft.)

Levels were taken on 11/13/19 @ 1115.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172716-23

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/13/19 Start Purge: 1250 (2400 Hr. Clock) End Purge: 1311

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.54

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.56 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.61 (ft./msl)

Water Level 36.12 (ft.)

Ground Water Elev. 499.49 (ft./msl)

Well Bottom Elevation *378.23 (ft./msl)

	1st	2nd	Final	
pH	8.11	8.13	8.13	(std.)
SC	749	750	750	(umhos/cm)
Temp.	9.75	9.70	9.70	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 25°F, Sunny, S winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 36.12 - 2.56 = 33.56 (ft)

Levels were taken on 11/13/19 @ 1240.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172716-24

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/13/19 Start Purge: 1350 (2400 Hr. Clock) End Purge: 1414

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.08

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.58 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.78 (ft./msl)
Water Level 25.51 (ft.)
Ground Water Elev. 510.27 (ft./msl)
Well Bottom Elevation *453.36 (ft./msl)

	1st	2nd	Final	
pH	7.39	7.40	7.40	(std.)
SC	1520	1510	1510	(umhos/cm)
Temp.	11.91	11.85	11.85	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 26°F, Sunny, S winds 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 25.51 - 2.58 = 22.93 (ft.)
Levels were taken on 11/13/19 @ 1345.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: S501
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-25

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging _____ Dedicated (Y/N)

Sampling Long-arm PVC Sampler Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter _____(inches) pH _____(std.)

Stick Up _____(ft) SC _____(umhos/cm)

Ref. Measuring Pt. _____ Temp._____(°C)

Well Elevation _____(ft./msl)

Water Level _____(ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____(ft./msl)

Well Bottom Elevation_____(ft./msl)

COMMENTS

Sample Appearance/Odor:_____

Weather Conditions: _____

Other: The sample was taken using a long-arm sampler and dipping it into the settling pond. The long-arm sampler was first washed with Liquinox and then triple rinsed with DI water that was obtained in STLs glassware prep room. The sample was taken in the settling pond at the Lincoln Quarry just north of the pump house. The dissolved parameters were poured into stainless steel filter and the total parameters were poured directly into the bottles. The sample was taken on @ .

* Sample point frozen, unable to obtain samples on 11/14/19 @ 0855

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: P40S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172616-26

Type Sample: (circle one) Ground Water Surface Water Leachate Other: Piezometer
Equipment Used: Purging _____ Dedicated (Y/N)
Sampling _____ Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) pH _____ (std.)

Stick Up 1.78 (ft) SC _____ (umhos/cm)

Ref. Measuring Pt. TIC Temp. _____ (°C)

Well Elevation *599.12 (ft./msl)

Water Level 57.10 (ft.)

Ground Water Elev. 542.02 (ft./msl)

Well Depth 124.28 (ft./msl)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. = 57.10 - 1.78 = 55.32 (ft)

Well Bottom Elevation = 599.12 - 124.28 = 474.84 (ft./msl)

Levels were taken on 11/14/19 @ 0910

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766.27

Type Sample: (circle one) Ground Water Surface Water Leachate Other:

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/14/19 Start Purge: 0935 (2400 Hr. Clock) End Purge: 0951

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.83

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.97 (ft)

Ref. Measuring Pt. TIC

Well Elevation *603.90 (ft./msl)

Water Level 61.55 (ft.)

Ground Water Elev. 542.35 (ft./msl)

Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.34	7.33	7.33	(std.)
SC	1046	1043	1043	(umhos/cm)
Temp.	12.21	12.18	12.18	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 31°F, Cloudy, NW winds e 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 61.55 - 2.97 = 58.58 (ft.)

Levels were taken on 11/14/19 @ 0925.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G38D
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-28

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/14/19 Start Purge: 1105 (2400 Hr. Clock) End Purge: 1126

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.68

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.11 (ft)

Ref. Measuring Pt. TIC

Well Elevation *610.67 (ft./msl)

Water Level 107.66 (ft.)

Ground Water Elev. 503.01 (ft./msl)

Well Bottom Elevation *382.38 (ft./msl)

	1st	2nd	Final	
pH	7.27	7.28	7.28	(std.)
SC	748	743	743	(umhos/cm)
Temp.	12.63	12.59	12.59	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 33°F, Cloudy, W winds e 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 107.66 - 2.11 = 105.55 (ft)

Levels were taken on 11/14/19 @ 1055.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G38S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-172766-29

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 11/14/19 Start Purge: 1200 (2400 Hr. Clock) End Purge: 1217

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.22 (ft)
Ref. Measuring Pt. TIC
Well Elevation *610.78 (ft./msl)
Water Level 87.09 (ft.)
Ground Water Elev. 523.69 (ft./msl)
Well Bottom Elevation *457.57 (ft./msl)

	1st	2nd	Final	
pH	8.64	8.63	8.63	(std.)
SC	938	941	941	(umhos/cm)
Temp.	12.91	12.92	12.92	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 33°F, Cloudy, NW winds @ 0-5 mph
Other: *Reference Measurement
Depth To Water from L.S. = 87.09 - 2.22 = 84.87 (ft.)
Levels were taken on 11/14/19 @ 1155.

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-175096-1
Client Project/Site: Joliet #9 (Quarry) CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
1/17/2020 11:52:32 AM

Eric Lang, Manager of Project Management
(708)534-5200
eric.lang@testamericainc.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Job ID: 500-175096-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-175096-1

Comments
No additional comments.

Receipt
The samples were received on 12/13/2019 3:35 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 10 coolers at receipt time were 2.0º C, 2.3º C, 2.9º C, 3.6º C, 4.2º C, 4.2º C, 4.3º C, 4.4º C, 5.3º C and 5.9º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
Method SM 4500 Cl- E: The matrix spike (MS) recovery for analytical batch 500-521937 were outside control limits for Chloride. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. (500-175096-C-5 MS)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-175096-1	G33S	Water	12/13/19 12:57	12/13/19 15:35	
500-175096-2	DUP	Water	12/13/19 12:57	12/13/19 15:35	
500-175096-3	G30S	Water	12/17/19 09:33	12/17/19 14:38	
500-175096-4	R32S	Water	12/17/19 12:12	12/17/19 14:38	
500-175096-5	G31S	Water	12/18/19 10:39	12/18/19 14:50	
500-175096-6	G48S	Water	12/18/19 12:51	12/18/19 14:50	
500-175096-7	G47S	Water	12/19/19 10:20	12/19/19 16:07	
500-175096-8	G45S	Water	12/19/19 13:16	12/19/19 16:07	
500-175096-9	G46S	GW	12/23/19 09:25	12/23/19 15:20	
500-175096-10	R08S	GW	12/23/19 10:25	12/23/19 15:20	
500-175096-11	G20S	GW	12/23/19 11:15	12/23/19 15:20	
500-175096-12	G44S	GW	12/23/19 13:50	12/23/19 15:20	
500-175096-13	T01S	Water	12/26/19 08:47	12/26/19 16:05	
500-175096-14	T04S	Water	12/26/19 13:02	12/26/19 16:05	
500-175096-15	T02S	Water	12/27/19 08:54	12/27/19 14:40	
500-175096-16	T08S	Water	12/27/19 11:07	12/27/19 14:40	
500-175096-17	T03S	Water	12/27/19 13:33	12/27/19 14:40	
500-175096-18	T09S	Water	12/30/19 08:26	12/30/19 12:10	
500-175096-19	T05S	Water	12/30/19 10:12	12/30/19 12:10	
500-175096-20	T06S	Water	12/31/19 09:30	12/31/19 12:00	

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G33S

Date Collected: 12/13/19 12:57
Date Received: 12/13/19 15:35

Lab Sample ID: 500-175096-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.041**		0.010		mg/L		12/19/19 07:21	12/20/19 01:44	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 15:43	1
Barium	**0.057**		0.0025		mg/L		12/19/19 07:21	12/19/19 15:43	1
Boron	**1.6**		0.25		mg/L		12/19/19 07:21	12/20/19 11:57	5
Calcium	**44**		0.20		mg/L		12/19/19 07:21	12/19/19 15:43	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 15:43	1
Lead	**0.00064**		0.00050		mg/L		12/19/19 07:21	12/19/19 15:43	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/19 07:21	12/19/19 15:43	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 07:21	12/19/19 15:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**440**		10		mg/L			12/16/19 08:34	1
Chloride	**4.8**		2.0		mg/L			12/21/19 16:17	1
Fluoride	**1.4**		0.10		mg/L			12/17/19 11:37	1
Sulfate	**66**		10		mg/L			12/23/19 10:43	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**25.24**				ft			12/13/19 12:57	1
Depth to Water (ft from MP)	**26.97**				ft			12/13/19 12:57	1
Elevation of well (ft from MP)	**535.66**				ft			12/13/19 12:57	1
Field pH	**7.59**				SU			12/13/19 12:57	1
Field Temperature	**54.5**				Degrees F			12/13/19 12:57	1
Ground Water Elevation	**508.69**				ft			12/13/19 12:57	1
Specific Conductance	**625**				umhos/cm			12/13/19 12:57	1
Well bottom elevation	**452.72**				ft			12/13/19 12:57	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: DUP

Date Collected: 12/13/19 12:57
Date Received: 12/13/19 15:35

Lab Sample ID: 500-175096-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.044**		0.010		mg/L		12/19/19 07:21	12/20/19 01:49	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 15:47	1
Barium	**0.060**		0.0025		mg/L		12/19/19 07:21	12/19/19 15:47	1
Boron	**1.6**		0.25		mg/L		12/19/19 07:21	12/20/19 12:01	5
Calcium	**44**		0.20		mg/L		12/19/19 07:21	12/19/19 15:47	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 15:47	1
Lead	**0.00065**		0.00050		mg/L		12/19/19 07:21	12/19/19 15:47	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/19 07:21	12/19/19 15:47	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 07:21	12/19/19 15:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**460**		10		mg/L			12/16/19 08:36	1
Chloride	**5.5**		2.0		mg/L			12/21/19 16:18	1
Fluoride	**1.5**		0.10		mg/L			12/17/19 11:42	1
Sulfate	**69**		10		mg/L			12/23/19 10:43	2

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**25.24**				ft			12/13/19 12:57	1
Depth to Water (ft from MP)	**26.97**				ft			12/13/19 12:57	1
Elevation of well (ft from MP)	**535.66**				ft			12/13/19 12:57	1
Field pH	**7.59**				SU			12/13/19 12:57	1
Field Temperature	**54.5**				Degrees F			12/13/19 12:57	1
Ground Water Elevation	**508.69**				ft			12/13/19 12:57	1
Specific Conductance	**625**				umhos/cm			12/13/19 12:57	1
Well bottom elevation	**452.72**				ft			12/13/19 12:57	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G30S

Date Collected: 12/17/19 09:33
Date Received: 12/17/19 14:38

Lab Sample ID: 500-175096-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.019		0.010		mg/L		12/19/19 07:21	12/20/19 01:53	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0074		0.0010		mg/L		12/19/19 07:21	12/19/19 15:51	1
Barium	0.042		0.0025		mg/L		12/19/19 07:21	12/19/19 15:51	1
Boron	5.3		1.0		mg/L		12/19/19 07:21	12/20/19 12:04	20
Calcium	58		0.20		mg/L		12/19/19 07:21	12/19/19 15:51	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 15:51	1
Lead	<0.00050		0.00050		mg/L		12/19/19 07:21	12/19/19 15:51	1
Molybdenum	0.030		0.0050		mg/L		12/19/19 07:21	12/19/19 15:51	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 07:21	12/19/19 15:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			12/18/19 05:56	1
Chloride	210		10		mg/L			12/21/19 16:57	5
Fluoride	1.2		0.10		mg/L			01/07/20 13:37	1
Sulfate	380		100		mg/L			12/23/19 10:43	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-0.89				ft			12/17/19 09:33	1
Depth to Water (ft from MP)	1.42				ft			12/17/19 09:33	1
Elevation of well (ft from MP)	524.70				ft			12/17/19 09:33	1
Field pH	8.15				SU			12/17/19 09:33	1
Field Temperature	40.6				Degrees F			12/17/19 09:33	1
Ground Water Elevation	523.28				ft			12/17/19 09:33	1
Specific Conductance	1459				umhos/cm			12/17/19 09:33	1
Well bottom elevation	462.58				ft			12/17/19 09:33	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: R32S

Date Collected: 12/17/19 12:12
Date Received: 12/17/19 14:38

Lab Sample ID: 500-175096-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.13		0.010		mg/L		12/19/19 07:21	12/20/19 17:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0010		mg/L		12/19/19 07:21	12/19/19 15:54	1
Barium	0.042		0.0025		mg/L		12/19/19 07:21	12/19/19 15:54	1
Boron	6.4		1.0		mg/L		12/19/19 07:21	12/20/19 12:08	20
Calcium	150		0.20		mg/L		12/19/19 07:21	12/19/19 15:54	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 15:54	1
Lead	<0.00050		0.00050		mg/L		12/19/19 07:21	12/19/19 15:54	1
Molybdenum	0.77		0.0050		mg/L		12/19/19 07:21	12/19/19 15:54	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 07:21	12/19/19 15:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	960		10		mg/L			12/18/19 06:04	1
Chloride	83		10		mg/L			12/21/19 16:58	5
Fluoride	0.30		0.10		mg/L			01/07/20 13:42	1
Sulfate	390		100		mg/L			12/23/19 10:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	16.90				ft			12/17/19 12:12	1
Depth to Water (ft from MP)	18.93				ft			12/17/19 12:12	1
Elevation of well (ft from MP)	536.99				ft			12/17/19 12:12	1
Field pH	7.69				SU			12/17/19 12:12	1
Field Temperature	51.6				Degrees F			12/17/19 12:12	1
Ground Water Elevation	518.06				ft			12/17/19 12:12	1
Specific Conductance	947				umhos/cm			12/17/19 12:12	1
Well bottom elevation	457.84				ft			12/17/19 12:12	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G31S

Date Collected: 12/18/19 10:39
Date Received: 12/18/19 14:50

Lab Sample ID: 500-175096-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		12/19/19 16:45	12/20/19 17:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0049		0.0010		mg/L		12/19/19 16:45	12/20/19 14:12	1
Barium	0.049		0.0025		mg/L		12/19/19 16:45	12/20/19 14:12	1
Boron	5.1		1.0		mg/L		12/19/19 16:45	12/23/19 12:23	20
Calcium	140		0.20		mg/L		12/19/19 16:45	12/20/19 14:12	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 16:45	12/20/19 14:12	1
Lead	<0.00050		0.00050		mg/L		12/19/19 16:45	12/20/19 14:12	1
Molybdenum	0.75		0.0050		mg/L		12/19/19 16:45	12/20/19 14:12	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 16:45	12/20/19 14:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			12/20/19 08:43	1
Chloride	190	F1	10		mg/L			12/21/19 16:58	5
Fluoride	0.28		0.10		mg/L			01/07/20 13:49	1
Sulfate	380		100		mg/L			12/23/19 10:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	25.00				ft			12/18/19 10:39	1
Depth to Water (ft from MP)	27.58				ft			12/18/19 10:39	1
Elevation of well (ft from MP)	535.78				ft			12/18/19 10:39	1
Field pH	7.48				SU			12/18/19 10:39	1
Field Temperature	52.9				Degrees F			12/18/19 10:39	1
Ground Water Elevation	508.20				ft			12/18/19 10:39	1
Specific Conductance	1570				umhos/cm			12/18/19 10:39	1
Well bottom elevation	453.36				ft			12/18/19 10:39	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G48S

Date Collected: 12/18/19 12:51
Date Received: 12/18/19 14:50

Lab Sample ID: 500-175096-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.019		0.010		mg/L		12/19/19 16:45	12/20/19 17:42	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.024		0.0010		mg/L		12/19/19 16:45	12/20/19 14:16	1
Barium	0.016		0.0025		mg/L		12/19/19 16:45	12/20/19 14:16	1
Boron	7.1		1.0		mg/L		12/19/19 16:45	12/23/19 12:26	20
Calcium	18		0.20		mg/L		12/19/19 16:45	12/20/19 14:16	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 16:45	12/20/19 14:16	1
Lead	<0.00050		0.00050		mg/L		12/19/19 16:45	12/20/19 14:16	1
Molybdenum	0.74		0.0050		mg/L		12/19/19 16:45	12/20/19 14:16	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 16:45	12/20/19 14:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			12/20/19 08:50	1
Chloride	110		10		mg/L			12/21/19 17:00	5
Fluoride	1.1		0.10		mg/L			01/07/20 13:55	1
Sulfate	390		100		mg/L			12/23/19 10:47	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	94.50				ft			12/18/19 12:51	1
Depth to Water (ft from MP)	96.95				ft			12/18/19 12:51	1
Elevation of well (ft from MP)	620.78				ft			12/18/19 12:51	1
Field pH	8.69				SU			12/18/19 12:51	1
Field Temperature	46.4				Degrees F			12/18/19 12:51	1
Ground Water Elevation	523.83				ft			12/18/19 12:51	1
Specific Conductance	1338				umhos/cm			12/18/19 12:51	1
Well bottom elevation	468.32				ft			12/18/19 12:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G47S

Date Collected: 12/19/19 10:20
Date Received: 12/19/19 16:07

Lab Sample ID: 500-175096-7

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.053		0.010		mg/L		12/20/19 07:54	12/20/19 17:56	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.035		0.0010		mg/L		12/20/19 07:54	12/20/19 17:54	1
Barium	0.016		0.0025		mg/L		12/20/19 07:54	12/20/19 17:54	1
Boron	5.0		1.0		mg/L		12/20/19 07:54	12/23/19 12:38	20
Calcium	15		0.20		mg/L		12/20/19 07:54	12/20/19 17:54	1
Cobalt	<0.0010		0.0010		mg/L		12/20/19 07:54	12/20/19 17:54	1
Lead	<0.00050		0.00050		mg/L		12/20/19 07:54	12/20/19 17:54	1
Molybdenum	0.40		0.0050		mg/L		12/20/19 07:54	12/20/19 17:54	1
Selenium	<0.0025		0.0025		mg/L		12/20/19 07:54	12/20/19 17:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			12/20/19 08:56	1
Chloride	140		10		mg/L			12/21/19 17:02	5
Fluoride	0.63		0.10		mg/L			01/07/20 14:12	1
Sulfate	440		100		mg/L			12/23/19 10:43	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	88.26				ft			12/19/19 10:20	1
Depth to Water (ft from MP)	90.76				ft			12/19/19 10:20	1
Elevation of well (ft from MP)	612.10				ft			12/19/19 10:20	1
Field pH	8.72				SU			12/19/19 10:20	1
Field Temperature	50.5				Degrees F			12/19/19 10:20	1
Ground Water Elevation	521.34				ft			12/19/19 10:20	1
Specific Conductance	1490				umhos/cm			12/19/19 10:20	1
Well bottom elevation	459.84				ft			12/19/19 10:20	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G45S

Date Collected: 12/19/19 13:16
Date Received: 12/19/19 16:07

Lab Sample ID: 500-175096-8

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.034		0.010		mg/L		12/20/19 07:54	12/20/19 18:17	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.010		0.0010		mg/L		12/20/19 07:54	12/20/19 18:13	1
Barium	0.044		0.0025		mg/L		12/20/19 07:54	12/20/19 18:13	1
Boron	<1.0		1.0		mg/L		12/20/19 07:54	12/23/19 12:57	20
Calcium	110		0.20		mg/L		12/20/19 07:54	12/20/19 18:13	1
Cobalt	<0.0010		0.0010		mg/L		12/20/19 07:54	12/20/19 18:13	1
Lead	<0.00050		0.00050		mg/L		12/20/19 07:54	12/20/19 18:13	1
Molybdenum	0.0090		0.0050		mg/L		12/20/19 07:54	12/20/19 18:13	1
Selenium	<0.0025		0.0025		mg/L		12/20/19 07:54	12/20/19 18:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			12/20/19 08:58	1
Chloride	170		10		mg/L			12/21/19 17:02	5
Fluoride	0.36		0.10		mg/L			01/07/20 14:16	1
Sulfate	120		100		mg/L			12/23/19 13:20	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	58.21				ft			12/19/19 13:16	1
Depth to Water (ft from MP)	61.18				ft			12/19/19 13:16	1
Elevation of well (ft from MP)	603.31				ft			12/19/19 13:16	1
Field pH	7.44				SU			12/19/19 13:16	1
Field Temperature	54.0				Degrees F			12/19/19 13:16	1
Ground Water Elevation	542.13				ft			12/19/19 13:16	1
Specific Conductance	1055				umhos/cm			12/19/19 13:16	1
Well bottom elevation	471.05				ft			12/19/19 13:16	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G46S

Date Collected: 12/23/19 09:25
Date Received: 12/23/19 15:20

Lab Sample ID: 500-175096-9

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		12/24/19 16:43	12/26/19 09:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.033		0.0010		mg/L		12/24/19 16:43	12/26/19 17:20	1
Barium	0.047		0.0025		mg/L		12/24/19 16:43	12/26/19 17:20	1
Boron	7.7		1.0		mg/L		12/24/19 16:43	12/27/19 11:53	20
Calcium	120		0.20		mg/L		12/24/19 16:43	12/26/19 17:20	1
Cobalt	<0.0010		0.0010		mg/L		12/24/19 16:43	12/26/19 17:20	1
Lead	<0.00050		0.00050		mg/L		12/24/19 16:43	12/26/19 17:20	1
Molybdenum	0.89		0.0050		mg/L		12/24/19 16:43	12/26/19 17:20	1
Selenium	<0.0025		0.0025		mg/L		12/24/19 16:43	12/26/19 17:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			12/26/19 23:02	1
Chloride	110		10		mg/L			01/03/20 17:28	5
Fluoride	0.37		0.10		mg/L			01/07/20 14:20	1
Sulfate	360		100		mg/L			12/27/19 18:52	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	96.68				ft			12/23/19 09:25	1
Depth to Water (ft from MP)	99.38				ft			12/23/19 09:25	1
Elevation of well (ft from MP)	601.32				ft			12/23/19 09:25	1
Field pH	7.58				SU			12/23/19 09:25	1
Field Temperature	54.3				Degrees F			12/23/19 09:25	1
Ground Water Elevation	501.94				ft			12/23/19 09:25	1
Specific Conductance	1197				umhos/cm			12/23/19 09:25	1
Well bottom elevation	453.62				ft			12/23/19 09:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: R08S

Date Collected: 12/23/19 10:25
Date Received: 12/23/19 15:20

Lab Sample ID: 500-175096-10

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.15		0.010		mg/L		12/24/19 16:43	12/26/19 09:42	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0012		0.0010		mg/L		12/24/19 16:43	12/26/19 17:24	1
Barium	0.044		0.0025		mg/L		12/24/19 16:43	12/26/19 17:24	1
Boron	7.6		1.0		mg/L		12/24/19 16:43	12/27/19 11:57	20
Calcium	140		0.20		mg/L		12/24/19 16:43	12/26/19 17:24	1
Cobalt	<0.0010		0.0010		mg/L		12/24/19 16:43	12/26/19 17:24	1
Lead	<0.00050		0.00050		mg/L		12/24/19 16:43	12/26/19 17:24	1
Molybdenum	0.34		0.0050		mg/L		12/24/19 16:43	12/26/19 17:24	1
Selenium	0.016		0.0025		mg/L		12/24/19 16:43	12/26/19 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		10		mg/L			12/26/19 23:09	1
Chloride	82		10		mg/L			01/03/20 17:29	5
Fluoride	0.17		0.10		mg/L			01/07/20 14:23	1
Sulfate	350		50		mg/L			12/27/19 18:31	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	64.65				ft			12/23/19 10:25	1
Depth to Water (ft from MP)	67.20				ft			12/23/19 10:25	1
Elevation of well (ft from MP)	578.62				ft			12/23/19 10:25	1
Field pH	7.82				SU			12/23/19 10:25	1
Field Temperature	53.6				Degrees F			12/23/19 10:25	1
Ground Water Elevation	511.42				ft			12/23/19 10:25	1
Specific Conductance	954				umhos/cm			12/23/19 10:25	1
Well bottom elevation	453.08				ft			12/23/19 10:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G20S

Date Collected: 12/23/19 11:15
Date Received: 12/23/19 15:20

Lab Sample ID: 500-175096-11

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.044		0.010		mg/L		12/24/19 16:43	12/26/19 09:46	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/24/19 16:43	12/26/19 17:28	1
Barium	0.049		0.0025		mg/L		12/24/19 16:43	12/26/19 17:28	1
Boron	1.4		0.50		mg/L		12/24/19 16:43	12/27/19 12:01	10
Calcium	58		0.20		mg/L		12/24/19 16:43	12/26/19 17:28	1
Cobalt	0.0023		0.0010		mg/L		12/24/19 16:43	12/26/19 17:28	1
Lead	<0.00050		0.00050		mg/L		12/24/19 16:43	12/26/19 17:28	1
Molybdenum	0.019		0.0050		mg/L		12/24/19 16:43	12/26/19 17:28	1
Selenium	<0.0025		0.0025		mg/L		12/24/19 16:43	12/26/19 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10		mg/L			12/26/19 23:15	1
Chloride	13		2.0		mg/L			01/03/20 16:33	1
Fluoride	0.82		0.10		mg/L			01/07/20 14:30	1
Sulfate	56		25		mg/L			12/27/19 18:33	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	38.68				ft			12/23/19 11:15	1
Depth to Water (ft from MP)	41.46				ft			12/23/19 11:15	1
Elevation of well (ft from MP)	580.33				ft			12/23/19 11:15	1
Field pH	7.82				SU			12/23/19 11:15	1
Field Temperature	56.1				Degrees F			12/23/19 11:15	1
Ground Water Elevation	538.87				ft			12/23/19 11:15	1
Specific Conductance	585				umhos/cm			12/23/19 11:15	1
Well bottom elevation	442.28				ft			12/23/19 11:15	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G44S

Date Collected: 12/23/19 13:50
Date Received: 12/23/19 15:20

Lab Sample ID: 500-175096-12

Matrix: GW

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.026**		0.010		mg/L		12/24/19 16:43	12/26/19 09:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/24/19 16:43	12/30/19 13:47	1
Barium	**0.062**		0.0025		mg/L		12/24/19 16:43	12/27/19 13:37	1
Boron	**1.7**		0.50		mg/L		12/24/19 16:43	12/27/19 12:04	10
Calcium	**140**		0.20		mg/L		12/24/19 16:43	12/27/19 13:37	1
Cobalt	<0.0010		0.0010		mg/L		12/24/19 16:43	12/27/19 13:37	1
Lead	<0.00050		0.00050		mg/L		12/24/19 16:43	12/30/19 12:30	1
Molybdenum	**0.23**		0.0050		mg/L		12/24/19 16:43	12/27/19 13:37	1
Selenium	<0.0025		0.0025		mg/L		12/24/19 16:43	12/30/19 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**690**		10		mg/L			12/26/19 23:17	1
Chloride	**55**		2.0		mg/L			01/03/20 16:34	1
Fluoride	**0.23**		0.10		mg/L			01/07/20 14:36	1
Sulfate	**160**		25		mg/L			12/28/19 09:12	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**78.87**				ft			12/23/19 13:50	1
Depth to Water (ft from MP)	**81.05**				ft			12/23/19 13:50	1
Elevation of well (ft from MP)	**586.69**				ft			12/23/19 13:50	1
Field pH	**7.24**				SU			12/23/19 13:50	1
Field Temperature	**52.9**				Degrees F			12/23/19 13:50	1
Ground Water Elevation	**505.64**				ft			12/23/19 13:50	1
Specific Conductance	**930**				umhos/cm			12/23/19 13:50	1
Well bottom elevation	**455.11**				ft			12/23/19 13:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T01S

Date Collected: 12/26/19 08:47
Date Received: 12/26/19 16:05

Lab Sample ID: 500-175096-13

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.012		0.010		mg/L		12/27/19 16:44	12/31/19 05:53	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.012		0.0010		mg/L		12/27/19 16:44	12/30/19 12:46	1
Barium	0.052		0.0025		mg/L		12/27/19 16:44	12/30/19 12:46	1
Boron	4.4		1.0		mg/L		12/27/19 16:44	12/31/19 15:20	20
Calcium	57		0.20		mg/L		12/27/19 16:44	12/30/19 12:46	1
Cobalt	0.0019		0.0010		mg/L		12/27/19 16:44	12/30/19 12:46	1
Lead	0.0018		0.00050		mg/L		12/27/19 16:44	12/30/19 12:46	1
Molybdenum	0.32		0.0050		mg/L		12/27/19 16:44	12/30/19 12:46	1
Selenium	<0.0025		0.0025		mg/L		12/27/19 16:44	12/30/19 12:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		10		mg/L			12/26/19 23:20	1
Chloride	100		10		mg/L			01/03/20 17:33	5
Fluoride	1.2		0.10		mg/L			01/07/20 14:41	1
Sulfate	340		100		mg/L			01/07/20 00:33	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	110.35				ft			12/26/19 08:47	1
Depth to Water (ft from MP)	112.83				ft			12/26/19 08:47	1
Elevation of well (ft from MP)	621.78				ft			12/26/19 08:47	1
Field pH	7.86				SU			12/26/19 08:47	1
Field Temperature	52.3				Degrees F			12/26/19 08:47	1
Ground Water Elevation	508.95				ft			12/26/19 08:47	1
Specific Conductance	1186				umhos/cm			12/26/19 08:47	1
Well bottom elevation	451.46				ft			12/26/19 08:47	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T04S

Date Collected: 12/26/19 13:02
Date Received: 12/26/19 16:05

Lab Sample ID: 500-175096-14

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.041		0.010		mg/L		12/27/19 16:44	12/31/19 05:57	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0022		0.0010		mg/L		12/27/19 16:44	12/30/19 12:50	1
Barium	0.078		0.0025		mg/L		12/27/19 16:44	12/30/19 12:50	1
Boron	0.28		0.050		mg/L		12/27/19 16:44	12/31/19 15:23	1
Calcium	110		0.20		mg/L		12/27/19 16:44	12/30/19 12:50	1
Cobalt	0.0044		0.0010		mg/L		12/27/19 16:44	12/30/19 12:50	1
Lead	0.0049		0.00050		mg/L		12/27/19 16:44	12/30/19 12:50	1
Molybdenum	0.013		0.0050		mg/L		12/27/19 16:44	12/30/19 12:50	1
Selenium	<0.0025		0.0025		mg/L		12/27/19 16:44	12/30/19 12:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	680		10		mg/L			12/26/19 23:22	1
Chloride	30		2.0		mg/L			01/03/20 16:40	1
Fluoride	0.32		0.10		mg/L			01/07/20 14:45	1
Sulfate	120		100		mg/L			01/07/20 00:57	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	150.47				ft			12/26/19 13:02	1
Depth to Water (ft from MP)	152.89				ft			12/26/19 13:02	1
Elevation of well (ft from MP)	631.35				ft			12/26/19 13:02	1
Field pH	7.37				SU			12/26/19 13:02	1
Field Temperature	60.4				Degrees F			12/26/19 13:02	1
Ground Water Elevation	478.46				ft			12/26/19 13:02	1
Specific Conductance	707				umhos/cm			12/26/19 13:02	1
Well bottom elevation	458.07				ft			12/26/19 13:02	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T02S

Date Collected: 12/27/19 08:54
Date Received: 12/27/19 14:40

Lab Sample ID: 500-175096-15

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.038		0.010		mg/L		12/27/19 16:44	12/31/19 06:02	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.019		0.0010		mg/L		12/27/19 16:44	12/30/19 12:54	1
Barium	0.083		0.0025		mg/L		12/27/19 16:44	12/30/19 12:54	1
Boron	5.2		1.0		mg/L		12/27/19 16:44	12/31/19 15:27	20
Calcium	76		0.20		mg/L		12/27/19 16:44	12/30/19 12:54	1
Cobalt	0.012		0.0010		mg/L		12/27/19 16:44	12/30/19 12:54	1
Lead	0.0044		0.00050		mg/L		12/27/19 16:44	12/30/19 12:54	1
Molybdenum	0.42		0.0050		mg/L		12/27/19 16:44	12/30/19 12:54	1
Selenium	<0.0025		0.0025		mg/L		12/27/19 16:44	12/30/19 12:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			12/30/19 08:48	1
Chloride	96		10		mg/L			01/03/20 17:36	5
Fluoride	0.67		0.10		mg/L			01/07/20 14:49	1
Sulfate	340		100		mg/L			01/07/20 00:18	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	127.46				ft			12/27/19 08:54	1
Depth to Water (ft from MP)	129.79				ft			12/27/19 08:54	1
Elevation of well (ft from MP)	626.16				ft			12/27/19 08:54	1
Field pH	8.03				SU			12/27/19 08:54	1
Field Temperature	42.3				Degrees F			12/27/19 08:54	1
Ground Water Elevation	496.37				ft			12/27/19 08:54	1
Specific Conductance	1178				umhos/cm			12/27/19 08:54	1
Well bottom elevation	453.40				ft			12/27/19 08:54	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T08S

Date Collected: 12/27/19 11:07
Date Received: 12/27/19 14:40

Lab Sample ID: 500-175096-16

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.031		0.010		mg/L		12/27/19 16:44	12/31/19 06:06	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.012		0.0010		mg/L		12/27/19 16:44	12/30/19 12:58	1
Barium	0.047		0.0025		mg/L		12/27/19 16:44	12/30/19 12:58	1
Boron	5.8		1.0		mg/L		12/27/19 16:44	12/31/19 15:31	20
Calcium	43		0.20		mg/L		12/27/19 16:44	12/30/19 12:58	1
Cobalt	<0.0010		0.0010		mg/L		12/27/19 16:44	12/30/19 12:58	1
Lead	<0.00050		0.00050		mg/L		12/27/19 16:44	12/30/19 12:58	1
Molybdenum	0.56		0.0050		mg/L		12/27/19 16:44	12/30/19 12:58	1
Selenium	<0.0025		0.0025		mg/L		12/27/19 16:44	12/30/19 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	830		10		mg/L			12/30/19 08:56	1
Chloride	100		10		mg/L			01/03/20 17:38	5
Fluoride	0.65		0.10		mg/L			01/07/20 14:54	1
Sulfate	280		100		mg/L			01/07/20 01:07	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	122.81				ft			12/27/19 11:07	1
Depth to Water (ft from MP)	125.19				ft			12/27/19 11:07	1
Elevation of well (ft from MP)	627.39				ft			12/27/19 11:07	1
Field pH	8.01				SU			12/27/19 11:07	1
Field Temperature	41.5				Degrees F			12/27/19 11:07	1
Ground Water Elevation	502.20				ft			12/27/19 11:07	1
Specific Conductance	1070				umhos/cm			12/27/19 11:07	1
Well bottom elevation	447.38				ft			12/27/19 11:07	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T03S

Date Collected: 12/27/19 13:33
Date Received: 12/27/19 14:40

Lab Sample ID: 500-175096-17

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.026		0.010		mg/L		12/27/19 16:44	12/31/19 06:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0010		mg/L		12/27/19 16:44	12/30/19 13:02	1
Barium	0.085		0.0025		mg/L		12/27/19 16:44	12/30/19 13:02	1
Boron	2.7		0.50		mg/L		12/27/19 16:44	12/31/19 15:35	10
Calcium	100		0.20		mg/L		12/27/19 16:44	12/30/19 13:02	1
Cobalt	0.0011		0.0010		mg/L		12/27/19 16:44	12/30/19 13:02	1
Lead	<0.00050		0.00050		mg/L		12/27/19 16:44	12/30/19 13:02	1
Molybdenum	0.28		0.0050		mg/L		12/27/19 16:44	12/30/19 13:02	1
Selenium	<0.0025		0.0025		mg/L		12/27/19 16:44	12/30/19 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	800		10		mg/L			12/30/19 08:58	1
Chloride	83		10		mg/L			01/03/20 17:39	5
Fluoride	0.32		0.10		mg/L			01/07/20 15:15	1
Sulfate	220		100		mg/L			01/07/20 01:07	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	131.22				ft			12/27/19 13:33	1
Depth to Water (ft from MP)	134.30				ft			12/27/19 13:33	1
Elevation of well (ft from MP)	629.89				ft			12/27/19 13:33	1
Field pH	7.57				SU			12/27/19 13:33	1
Field Temperature	51.4				Degrees F			12/27/19 13:33	1
Ground Water Elevation	495.59				ft			12/27/19 13:33	1
Specific Conductance	1037				umhos/cm			12/27/19 13:33	1
Well bottom elevation	456.70				ft			12/27/19 13:33	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T09S

Date Collected: 12/30/19 08:26
Date Received: 12/30/19 12:10

Lab Sample ID: 500-175096-18

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.082		0.010		mg/L		01/06/20 07:18	01/07/20 04:46	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0026		0.0010		mg/L		01/06/20 07:18	01/06/20 18:37	1
Barium	0.084		0.0025		mg/L		01/06/20 07:18	01/06/20 18:37	1
Boron	5.1		1.0		mg/L		01/06/20 07:18	01/07/20 12:06	20
Calcium	120		0.20		mg/L		01/06/20 07:18	01/06/20 18:37	1
Cobalt	<0.0010		0.0010		mg/L		01/06/20 07:18	01/06/20 18:37	1
Lead	0.00064		0.00050		mg/L		01/06/20 07:18	01/06/20 18:37	1
Molybdenum	0.75		0.0050		mg/L		01/06/20 07:18	01/06/20 18:37	1
Selenium	<0.0025		0.0025		mg/L		01/06/20 07:18	01/06/20 18:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		10		mg/L			01/06/20 03:24	1
Chloride	120		10		mg/L			01/03/20 17:43	5
Fluoride	0.39		0.10		mg/L			01/07/20 15:21	1
Sulfate	350		100		mg/L			01/14/20 09:53	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.85				ft			12/30/19 08:26	1
Depth to Water (ft from MP)	101.25				ft			12/30/19 08:26	1
Elevation of well (ft from MP)	603.74				ft			12/30/19 08:26	1
Field pH	7.68				SU			12/30/19 08:26	1
Field Temperature	45.5				Degrees F			12/30/19 08:26	1
Ground Water Elevation	502.49				ft			12/30/19 08:26	1
Specific Conductance	1085				umhos/cm			12/30/19 08:26	1
Well bottom elevation	444.80				ft			12/30/19 08:26	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T05S

Date Collected: 12/30/19 10:12
Date Received: 12/30/19 12:10

Lab Sample ID: 500-175096-19

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.020		0.010		mg/L		01/06/20 07:18	01/07/20 04:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.14		0.0010		mg/L		01/06/20 07:18	01/06/20 18:41	1
Barium	0.011		0.0025		mg/L		01/06/20 07:18	01/06/20 18:41	1
Boron	14		5.0		mg/L		01/06/20 07:18	01/07/20 12:10	100
Calcium	1.7		0.20		mg/L		01/06/20 07:18	01/06/20 18:41	1
Cobalt	<0.0010		0.0010		mg/L		01/06/20 07:18	01/06/20 18:41	1
Lead	<0.00050		0.00050		mg/L		01/06/20 07:18	01/06/20 18:41	1
Molybdenum	1.0		0.0050		mg/L		01/06/20 07:18	01/06/20 18:41	1
Selenium	0.0049		0.0025		mg/L		01/06/20 07:18	01/06/20 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		10		mg/L			01/06/20 03:32	1
Chloride	140		10		mg/L			01/03/20 17:44	5
Fluoride	1.9		0.10		mg/L			01/07/20 15:25	1
Sulfate	680		100		mg/L			01/07/20 09:10	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	114.24				ft			12/30/19 10:12	1
Depth to Water (ft from MP)	116.64				ft			12/30/19 10:12	1
Elevation of well (ft from MP)	623.45				ft			12/30/19 10:12	1
Field pH	10.35				SU			12/30/19 10:12	1
Field Temperature	45.3				Degrees F			12/30/19 10:12	1
Ground Water Elevation	506.81				ft			12/30/19 10:12	1
Specific Conductance	2040				umhos/cm			12/30/19 10:12	1
Well bottom elevation	448.35				ft			12/30/19 10:12	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T06S

Date Collected: 12/31/19 09:30
Date Received: 12/31/19 12:00

Lab Sample ID: 500-175096-20

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.029		0.010		mg/L		01/06/20 07:18	01/07/20 04:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		01/06/20 07:18	01/06/20 18:44	1
Barium	0.035		0.0025		mg/L		01/06/20 07:18	01/06/20 18:44	1
Boron	0.77		0.25		mg/L		01/06/20 07:18	01/07/20 12:14	5
Calcium	95		0.20		mg/L		01/06/20 07:18	01/06/20 18:44	1
Cobalt	<0.0010		0.0010		mg/L		01/06/20 07:18	01/06/20 18:44	1
Lead	<0.00050		0.00050		mg/L		01/06/20 07:18	01/06/20 18:44	1
Molybdenum	0.011		0.0050		mg/L		01/06/20 07:18	01/06/20 18:44	1
Selenium	<0.0025		0.0025		mg/L		01/06/20 07:18	01/06/20 18:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	540		10		mg/L			01/06/20 03:35	1
Chloride	15		2.0		mg/L			01/03/20 17:45	1
Fluoride	0.47		0.10		mg/L			01/07/20 15:28	1
Sulfate	76		50		mg/L			01/07/20 09:10	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	108.17				ft			12/31/19 09:30	1
Depth to Water (ft from MP)	110.47				ft			12/31/19 09:30	1
Elevation of well (ft from MP)	621.02				ft			12/31/19 09:30	1
Field pH	5.01				SU			12/31/19 09:30	1
Field Temperature	46.0				Degrees F			12/31/19 09:30	1
Ground Water Elevation	510.55				ft			12/31/19 09:30	1
Specific Conductance	668				umhos/cm			12/31/19 09:30	1
Well bottom elevation	447.94				ft			12/31/19 09:30	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 521415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total Recoverable	Water	3005A	
500-175096-2	DUP	Total Recoverable	Water	3005A	
500-175096-3	G30S	Total Recoverable	Water	3005A	
500-175096-4	R32S	Total Recoverable	Water	3005A	
MB 500-521415/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-521415/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 521599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-5	G31S	Total Recoverable	Water	3005A	
500-175096-6	G48S	Total Recoverable	Water	3005A	
MB 500-521599/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-521599/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 521635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total Recoverable	Water	6010C	521415
500-175096-2	DUP	Total Recoverable	Water	6010C	521415
500-175096-3	G30S	Total Recoverable	Water	6010C	521415
MB 500-521415/1-A	Method Blank	Total Recoverable	Water	6010C	521415
LCS 500-521415/2-A	Lab Control Sample	Total Recoverable	Water	6010C	521415

Prep Batch: 521655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-7	G47S	Total Recoverable	Water	3005A	
500-175096-8	G45S	Total Recoverable	Water	3005A	
MB 500-521655/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-521655/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-175096-7 MS	G47S	Total Recoverable	Water	3005A	
500-175096-7 MSD	G47S	Total Recoverable	Water	3005A	
500-175096-7 DU	G47S	Total Recoverable	Water	3005A	

Analysis Batch: 521733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total Recoverable	Water	6020A	521415
500-175096-2	DUP	Total Recoverable	Water	6020A	521415
500-175096-3	G30S	Total Recoverable	Water	6020A	521415
500-175096-4	R32S	Total Recoverable	Water	6020A	521415
MB 500-521415/1-A	Method Blank	Total Recoverable	Water	6020A	521415
LCS 500-521415/2-A	Lab Control Sample	Total Recoverable	Water	6020A	521415

Analysis Batch: 521915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total Recoverable	Water	6020A	521415
500-175096-2	DUP	Total Recoverable	Water	6020A	521415
500-175096-3	G30S	Total Recoverable	Water	6020A	521415
500-175096-4	R32S	Total Recoverable	Water	6020A	521415
500-175096-5	G31S	Total Recoverable	Water	6020A	521599
500-175096-6	G48S	Total Recoverable	Water	6020A	521599
500-175096-7	G47S	Total Recoverable	Water	6020A	521655
500-175096-8	G45S	Total Recoverable	Water	6020A	521655

Metals (Continued)

Analysis Batch: 521915 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-521415/1-A	Method Blank	Total Recoverable	Water	6020A	521415
MB 500-521599/1-A	Method Blank	Total Recoverable	Water	6020A	521599
MB 500-521655/1-A	Method Blank	Total Recoverable	Water	6020A	521655
LCS 500-521415/2-A	Lab Control Sample	Total Recoverable	Water	6020A	521415
LCS 500-521599/2-A	Lab Control Sample	Total Recoverable	Water	6020A	521599
LCS 500-521655/2-A	Lab Control Sample	Total Recoverable	Water	6020A	521655
500-175096-7 MS	G47S	Total Recoverable	Water	6020A	521655
500-175096-7 MSD	G47S	Total Recoverable	Water	6020A	521655
500-175096-7 DU	G47S	Total Recoverable	Water	6020A	521655

Analysis Batch: 522048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-4	R32S	Total Recoverable	Water	6010C	521415
500-175096-5	G31S	Total Recoverable	Water	6010C	521599
500-175096-6	G48S	Total Recoverable	Water	6010C	521599
500-175096-7	G47S	Total Recoverable	Water	6010C	521655
500-175096-8	G45S	Total Recoverable	Water	6010C	521655
MB 500-521599/1-A	Method Blank	Total Recoverable	Water	6010C	521599
MB 500-521655/1-A	Method Blank	Total Recoverable	Water	6010C	521655
LCS 500-521599/2-A	Lab Control Sample	Total Recoverable	Water	6010C	521599
LCS 500-521655/2-A	Lab Control Sample	Total Recoverable	Water	6010C	521655
500-175096-7 MS	G47S	Total Recoverable	Water	6010C	521655
500-175096-7 MSD	G47S	Total Recoverable	Water	6010C	521655
500-175096-7 DU	G47S	Total Recoverable	Water	6010C	521655

Analysis Batch: 522322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-5	G31S	Total Recoverable	Water	6020A	521599
500-175096-6	G48S	Total Recoverable	Water	6020A	521599
500-175096-7	G47S	Total Recoverable	Water	6020A	521655
500-175096-8	G45S	Total Recoverable	Water	6020A	521655
MB 500-521655/1-A	Method Blank	Total Recoverable	Water	6020A	521655
LCS 500-521655/2-A	Lab Control Sample	Total Recoverable	Water	6020A	521655
500-175096-7 MS	G47S	Total Recoverable	Water	6020A	521655
500-175096-7 MSD	G47S	Total Recoverable	Water	6020A	521655
500-175096-7 DU	G47S	Total Recoverable	Water	6020A	521655

Prep Batch: 522376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-9	G46S	Total Recoverable	GW	3005A	
500-175096-10	R08S	Total Recoverable	GW	3005A	
500-175096-11	G20S	Total Recoverable	GW	3005A	
500-175096-12	G44S	Total Recoverable	GW	3005A	
MB 500-522376/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-522376/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 522538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-9	G46S	Total Recoverable	GW	6010C	522376
500-175096-10	R08S	Total Recoverable	GW	6010C	522376
500-175096-11	G20S	Total Recoverable	GW	6010C	522376

Metals (Continued)

Analysis Batch: 522538 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-12	G44S	Total Recoverable	GW	6010C	522376
MB 500-522376/1-A	Method Blank	Total Recoverable	Water	6010C	522376
LCS 500-522376/2-A	Lab Control Sample	Total Recoverable	Water	6010C	522376

Analysis Batch: 522708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-9	G46S	Total Recoverable	GW	6020A	522376
500-175096-10	R08S	Total Recoverable	GW	6020A	522376
500-175096-11	G20S	Total Recoverable	GW	6020A	522376
MB 500-522376/1-A	Method Blank	Total Recoverable	Water	6020A	522376
LCS 500-522376/2-A	Lab Control Sample	Total Recoverable	Water	6020A	522376

Analysis Batch: 522772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-9	G46S	Total Recoverable	GW	6020A	522376
500-175096-10	R08S	Total Recoverable	GW	6020A	522376
500-175096-11	G20S	Total Recoverable	GW	6020A	522376
500-175096-12	G44S	Total Recoverable	GW	6020A	522376
500-175096-12	G44S	Total Recoverable	GW	6020A	522376
MB 500-522376/1-A	Method Blank	Total Recoverable	Water	6020A	522376
LCS 500-522376/2-A	Lab Control Sample	Total Recoverable	Water	6020A	522376

Prep Batch: 522799

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-13	T01S	Total Recoverable	Water	3005A	
500-175096-14	T04S	Total Recoverable	Water	3005A	
500-175096-15	T02S	Total Recoverable	Water	3005A	
500-175096-16	T08S	Total Recoverable	Water	3005A	
500-175096-17	T03S	Total Recoverable	Water	3005A	
MB 500-522799/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-522799/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 523081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-12	G44S	Total Recoverable	GW	6020A	522376

Analysis Batch: 523089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-12	G44S	Total Recoverable	GW	6020A	522376
500-175096-13	T01S	Total Recoverable	Water	6020A	522799
500-175096-14	T04S	Total Recoverable	Water	6020A	522799
500-175096-15	T02S	Total Recoverable	Water	6020A	522799
500-175096-16	T08S	Total Recoverable	Water	6020A	522799
500-175096-17	T03S	Total Recoverable	Water	6020A	522799
MB 500-522799/1-A	Method Blank	Total Recoverable	Water	6020A	522799
LCS 500-522799/2-A	Lab Control Sample	Total Recoverable	Water	6020A	522799

Analysis Batch: 523133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-13	T01S	Total Recoverable	Water	6010C	522799
500-175096-14	T04S	Total Recoverable	Water	6010C	522799

Metals (Continued)

Analysis Batch: 523133 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-15	T02S	Total Recoverable	Water	6010C	522799
500-175096-16	T08S	Total Recoverable	Water	6010C	522799
500-175096-17	T03S	Total Recoverable	Water	6010C	522799
MB 500-522799/1-A	Method Blank	Total Recoverable	Water	6010C	522799
LCS 500-522799/2-A	Lab Control Sample	Total Recoverable	Water	6010C	522799

Prep Batch: 523446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-18	T09S	Total Recoverable	Water	3005A	
500-175096-19	T05S	Total Recoverable	Water	3005A	
500-175096-20	T06S	Total Recoverable	Water	3005A	
MB 500-523446/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-523446/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 523516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-13	T01S	Total Recoverable	Water	6020A	522799
500-175096-14	T04S	Total Recoverable	Water	6020A	522799
500-175096-15	T02S	Total Recoverable	Water	6020A	522799
500-175096-16	T08S	Total Recoverable	Water	6020A	522799
500-175096-17	T03S	Total Recoverable	Water	6020A	522799

Analysis Batch: 523614

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-18	T09S	Total Recoverable	Water	6010C	523446
500-175096-19	T05S	Total Recoverable	Water	6010C	523446
500-175096-20	T06S	Total Recoverable	Water	6010C	523446
MB 500-523446/1-A	Method Blank	Total Recoverable	Water	6010C	523446
LCS 500-523446/2-A	Lab Control Sample	Total Recoverable	Water	6010C	523446

Analysis Batch: 523677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-18	T09S	Total Recoverable	Water	6020A	523446
500-175096-19	T05S	Total Recoverable	Water	6020A	523446
500-175096-20	T06S	Total Recoverable	Water	6020A	523446
MB 500-523446/1-A	Method Blank	Total Recoverable	Water	6020A	523446
LCS 500-523446/2-A	Lab Control Sample	Total Recoverable	Water	6020A	523446

Analysis Batch: 523733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-18	T09S	Total Recoverable	Water	6020A	523446
500-175096-19	T05S	Total Recoverable	Water	6020A	523446
500-175096-20	T06S	Total Recoverable	Water	6020A	523446
MB 500-523446/1-A	Method Blank	Total Recoverable	Water	6020A	523446
LCS 500-523446/2-A	Lab Control Sample	Total Recoverable	Water	6020A	523446

General Chemistry

Analysis Batch: 471445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 471445 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-2	DUP	Total/NA	Water	SM 4500 SO4 E	
500-175096-3	G30S	Total/NA	Water	SM 4500 SO4 E	
500-175096-4	R32S	Total/NA	Water	SM 4500 SO4 E	
500-175096-5	G31S	Total/NA	Water	SM 4500 SO4 E	
500-175096-6	G48S	Total/NA	Water	SM 4500 SO4 E	
500-175096-7	G47S	Total/NA	Water	SM 4500 SO4 E	
MB 400-471445/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-471445/37	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-471445/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 471466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-8	G45S	Total/NA	Water	SM 4500 SO4 E	
MB 400-471466/5	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-471466/6	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-471466/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-175096-8 MS	G45S	Total/NA	Water	SM 4500 SO4 E	
500-175096-8 MSD	G45S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 472105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-9	G46S	Total/NA	GW	SM 4500 SO4 E	
500-175096-10	R08S	Total/NA	GW	SM 4500 SO4 E	
500-175096-11	G20S	Total/NA	GW	SM 4500 SO4 E	
MB 400-472105/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-472105/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-472105/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 472162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-12	G44S	Total/NA	GW	SM 4500 SO4 E	
MB 400-472162/5	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-472162/15	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-472162/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 473163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-13	T01S	Total/NA	Water	SM 4500 SO4 E	
500-175096-14	T04S	Total/NA	Water	SM 4500 SO4 E	
500-175096-15	T02S	Total/NA	Water	SM 4500 SO4 E	
500-175096-16	T08S	Total/NA	Water	SM 4500 SO4 E	
500-175096-17	T03S	Total/NA	Water	SM 4500 SO4 E	
500-175096-19	T05S	Total/NA	Water	SM 4500 SO4 E	
500-175096-20	T06S	Total/NA	Water	SM 4500 SO4 E	
MB 400-473163/5	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-473163/52	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-175096-13 MS	T01S	Total/NA	Water	SM 4500 SO4 E	
500-175096-13 MSD	T01S	Total/NA	Water	SM 4500 SO4 E	

General Chemistry

Analysis Batch: 473946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-18	T09S	Total/NA	Water	SM 4500 SO4 E	
MB 400-473946/22	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-473946/5	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-473946/20	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 520703

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total/NA	Water	SM 2540C	
500-175096-2	DUP	Total/NA	Water	SM 2540C	
MB 500-520703/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-520703/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 521061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total/NA	Water	SM 4500 F C	
500-175096-2	DUP	Total/NA	Water	SM 4500 F C	
MB 500-521061/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-521061/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 521154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-3	G30S	Total/NA	Water	SM 2540C	
500-175096-4	R32S	Total/NA	Water	SM 2540C	
MB 500-521154/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-521154/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-175096-3 MS	G30S	Total/NA	Water	SM 2540C	
500-175096-3 DU	G30S	Total/NA	Water	SM 2540C	
500-175096-4 DU	R32S	Total/NA	Water	SM 2540C	

Analysis Batch: 521713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-5	G31S	Total/NA	Water	SM 2540C	
500-175096-6	G48S	Total/NA	Water	SM 2540C	
500-175096-7	G47S	Total/NA	Water	SM 2540C	
500-175096-8	G45S	Total/NA	Water	SM 2540C	
MB 500-521713/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-521713/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-175096-5 MS	G31S	Total/NA	Water	SM 2540C	
500-175096-5 DU	G31S	Total/NA	Water	SM 2540C	
500-175096-6 DU	G48S	Total/NA	Water	SM 2540C	

Analysis Batch: 521937

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total/NA	Water	SM 4500 Cl- E	
500-175096-2	DUP	Total/NA	Water	SM 4500 Cl- E	
500-175096-3	G30S	Total/NA	Water	SM 4500 Cl- E	
500-175096-4	R32S	Total/NA	Water	SM 4500 Cl- E	
500-175096-5	G31S	Total/NA	Water	SM 4500 Cl- E	
500-175096-6	G48S	Total/NA	Water	SM 4500 Cl- E	
500-175096-7	G47S	Total/NA	Water	SM 4500 Cl- E	
500-175096-8	G45S	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 521937 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-521937/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-521937/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-175096-5 MS	G31S	Total/NA	Water	SM 4500 Cl- E	
500-175096-5 MSD	G31S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 522616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-9	G46S	Total/NA	GW	SM 2540C	
500-175096-10	R08S	Total/NA	GW	SM 2540C	
500-175096-11	G20S	Total/NA	GW	SM 2540C	
500-175096-12	G44S	Total/NA	GW	SM 2540C	
500-175096-13	T01S	Total/NA	Water	SM 2540C	
500-175096-14	T04S	Total/NA	Water	SM 2540C	
MB 500-522616/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-522616/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-175096-9 MS	G46S	Total/NA	GW	SM 2540C	
500-175096-9 DU	G46S	Total/NA	GW	SM 2540C	
500-175096-10 DU	R08S	Total/NA	GW	SM 2540C	

Analysis Batch: 522961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-15	T02S	Total/NA	Water	SM 2540C	
500-175096-16	T08S	Total/NA	Water	SM 2540C	
500-175096-17	T03S	Total/NA	Water	SM 2540C	
MB 500-522961/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-522961/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-175096-15 MS	T02S	Total/NA	Water	SM 2540C	
500-175096-15 DU	T02S	Total/NA	Water	SM 2540C	

Analysis Batch: 523397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-9	G46S	Total/NA	GW	SM 4500 Cl- E	
500-175096-10	R08S	Total/NA	GW	SM 4500 Cl- E	
500-175096-11	G20S	Total/NA	GW	SM 4500 Cl- E	
500-175096-12	G44S	Total/NA	GW	SM 4500 Cl- E	
500-175096-13	T01S	Total/NA	Water	SM 4500 Cl- E	
500-175096-14	T04S	Total/NA	Water	SM 4500 Cl- E	
500-175096-15	T02S	Total/NA	Water	SM 4500 Cl- E	
500-175096-16	T08S	Total/NA	Water	SM 4500 Cl- E	
500-175096-17	T03S	Total/NA	Water	SM 4500 Cl- E	
500-175096-18	T09S	Total/NA	Water	SM 4500 Cl- E	
500-175096-19	T05S	Total/NA	Water	SM 4500 Cl- E	
500-175096-20	T06S	Total/NA	Water	SM 4500 Cl- E	
MB 500-523397/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-523397/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-175096-13 MS	T01S	Total/NA	Water	SM 4500 Cl- E	
500-175096-13 MSD	T01S	Total/NA	Water	SM 4500 Cl- E	
500-175096-15 MS	T02S	Total/NA	Water	SM 4500 Cl- E	
500-175096-15 MSD	T02S	Total/NA	Water	SM 4500 Cl- E	

General Chemistry

Analysis Batch: 523422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-18	T09S	Total/NA	Water	SM 2540C	
500-175096-19	T05S	Total/NA	Water	SM 2540C	
500-175096-20	T06S	Total/NA	Water	SM 2540C	
MB 500-523422/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-523422/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-175096-18 MS	T09S	Total/NA	Water	SM 2540C	
500-175096-18 DU	T09S	Total/NA	Water	SM 2540C	

Analysis Batch: 523784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-3	G30S	Total/NA	Water	SM 4500 F C	
500-175096-4	R32S	Total/NA	Water	SM 4500 F C	
500-175096-5	G31S	Total/NA	Water	SM 4500 F C	
500-175096-6	G48S	Total/NA	Water	SM 4500 F C	
500-175096-7	G47S	Total/NA	Water	SM 4500 F C	
500-175096-8	G45S	Total/NA	Water	SM 4500 F C	
500-175096-9	G46S	Total/NA	GW	SM 4500 F C	
500-175096-10	R08S	Total/NA	GW	SM 4500 F C	
500-175096-11	G20S	Total/NA	GW	SM 4500 F C	
500-175096-12	G44S	Total/NA	GW	SM 4500 F C	
500-175096-13	T01S	Total/NA	Water	SM 4500 F C	
500-175096-14	T04S	Total/NA	Water	SM 4500 F C	
500-175096-15	T02S	Total/NA	Water	SM 4500 F C	
500-175096-16	T08S	Total/NA	Water	SM 4500 F C	
500-175096-17	T03S	Total/NA	Water	SM 4500 F C	
500-175096-18	T09S	Total/NA	Water	SM 4500 F C	
500-175096-19	T05S	Total/NA	Water	SM 4500 F C	
500-175096-20	T06S	Total/NA	Water	SM 4500 F C	
MB 500-523784/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-523784/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 524727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-1	G33S	Total/NA	Water	Field Sampling	
500-175096-2	DUP	Total/NA	Water	Field Sampling	
500-175096-3	G30S	Total/NA	Water	Field Sampling	
500-175096-4	R32S	Total/NA	Water	Field Sampling	
500-175096-5	G31S	Total/NA	Water	Field Sampling	
500-175096-6	G48S	Total/NA	Water	Field Sampling	
500-175096-7	G47S	Total/NA	Water	Field Sampling	
500-175096-8	G45S	Total/NA	Water	Field Sampling	
500-175096-9	G46S	Total/NA	GW	Field Sampling	
500-175096-10	R08S	Total/NA	GW	Field Sampling	
500-175096-11	G20S	Total/NA	GW	Field Sampling	
500-175096-12	G44S	Total/NA	GW	Field Sampling	
500-175096-13	T01S	Total/NA	Water	Field Sampling	
500-175096-14	T04S	Total/NA	Water	Field Sampling	
500-175096-15	T02S	Total/NA	Water	Field Sampling	
500-175096-16	T08S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 524727 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-175096-17	T03S	Total/NA	Water	Field Sampling	
500-175096-18	T09S	Total/NA	Water	Field Sampling	
500-175096-19	T05S	Total/NA	Water	Field Sampling	
500-175096-20	T06S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-521415/1-A
Matrix: Water
Analysis Batch: 521635

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/19/19 07:21	12/20/19 01:36	1

Lab Sample ID: LCS 500-521415/2-A
Matrix: Water
Analysis Batch: 521635

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.0956		mg/L		96	80 - 120

Lab Sample ID: MB 500-521599/1-A
Matrix: Water
Analysis Batch: 522048

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/19/19 16:45	12/20/19 17:16	1

Lab Sample ID: LCS 500-521599/2-A
Matrix: Water
Analysis Batch: 522048

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521599

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.543		mg/L		109	80 - 120

Lab Sample ID: MB 500-521655/1-A
Matrix: Water
Analysis Batch: 522048

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/20/19 07:54	12/20/19 17:48	1

Lab Sample ID: LCS 500-521655/2-A
Matrix: Water
Analysis Batch: 522048

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.109		mg/L		109	80 - 120

Lab Sample ID: 500-175096-7 MS
Matrix: Water
Analysis Batch: 522048

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.053		0.100	0.160		mg/L		106	75 - 125

Lab Sample ID: 500-175096-7 MSD
Matrix: Water
Analysis Batch: 522048

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.053		0.100	0.170		mg/L		117	75 - 125	6	20

Method: 6010C - Metals (ICP)

Lab Sample ID: 500-175096-7 DU
Matrix: Water
Analysis Batch: 522048

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.053		0.0536		mg/L		0.6	20

Lab Sample ID: MB 500-522376/1-A
Matrix: Water
Analysis Batch: 522538

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/24/19 16:43	12/26/19 09:21	1

Lab Sample ID: LCS 500-522376/2-A
Matrix: Water
Analysis Batch: 522538

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.504		mg/L		101	80 - 120

Lab Sample ID: MB 500-522799/1-A
Matrix: Water
Analysis Batch: 523133

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522799

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/27/19 16:44	12/31/19 05:44	1

Lab Sample ID: LCS 500-522799/2-A
Matrix: Water
Analysis Batch: 523133

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522799

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.508		mg/L		102	80 - 120

Lab Sample ID: MB 500-523446/1-A
Matrix: Water
Analysis Batch: 523614

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 523446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		01/06/20 07:18	01/07/20 04:37	1

Lab Sample ID: LCS 500-523446/2-A
Matrix: Water
Analysis Batch: 523614

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 523446

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.114		mg/L		114	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-521415/1-A
Matrix: Water
Analysis Batch: 521733

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 14:02	1
Barium	<0.0025		0.0025		mg/L		12/19/19 07:21	12/19/19 14:02	1
Calcium	<0.20		0.20		mg/L		12/19/19 07:21	12/19/19 14:02	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 07:21	12/19/19 14:02	1
Lead	<0.00050		0.00050		mg/L		12/19/19 07:21	12/19/19 14:02	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/19 07:21	12/19/19 14:02	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 07:21	12/19/19 14:02	1

Lab Sample ID: MB 500-521415/1-A
Matrix: Water
Analysis Batch: 521915

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521415

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/19/19 07:21	12/20/19 11:49	1

Lab Sample ID: LCS 500-521415/2-A
Matrix: Water
Analysis Batch: 521733

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0981		mg/L		98	80 - 120
Barium	0.500	0.499		mg/L		100	80 - 120
Calcium	10.0	9.18		mg/L		92	80 - 120
Cobalt	0.500	0.547		mg/L		109	80 - 120
Lead	0.100	0.106		mg/L		106	80 - 120
Molybdenum	1.00	0.992		mg/L		99	80 - 120
Selenium	0.100	0.0994		mg/L		99	80 - 120

Lab Sample ID: LCS 500-521415/2-A
Matrix: Water
Analysis Batch: 521915

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521415

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: MB 500-521599/1-A
Matrix: Water
Analysis Batch: 521915

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/19/19 16:45	12/20/19 12:31	1
Barium	<0.0025		0.0025		mg/L		12/19/19 16:45	12/20/19 12:31	1
Boron	<0.050		0.050		mg/L		12/19/19 16:45	12/20/19 12:31	1
Calcium	<0.20		0.20		mg/L		12/19/19 16:45	12/20/19 12:31	1
Cobalt	<0.0010		0.0010		mg/L		12/19/19 16:45	12/20/19 12:31	1
Lead	<0.00050		0.00050		mg/L		12/19/19 16:45	12/20/19 12:31	1
Molybdenum	<0.0050		0.0050		mg/L		12/19/19 16:45	12/20/19 12:31	1
Selenium	<0.0025		0.0025		mg/L		12/19/19 16:45	12/20/19 12:31	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-521599/2-A
Matrix: Water
Analysis Batch: 521915

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521599

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0991		mg/L		99	80 - 120
Barium	2.00	2.05		mg/L		103	80 - 120
Boron	1.00	1.04		mg/L		104	80 - 120
Calcium	10.0	9.08		mg/L		91	80 - 120
Cobalt	0.500	0.530		mg/L		106	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	0.999		mg/L		100	80 - 120
Selenium	0.100	0.105		mg/L		105	80 - 120

Lab Sample ID: MB 500-521655/1-A
Matrix: Water
Analysis Batch: 521915

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/20/19 07:54	12/20/19 17:47	1
Barium	<0.0025		0.0025		mg/L		12/20/19 07:54	12/20/19 17:47	1
Calcium	<0.20		0.20		mg/L		12/20/19 07:54	12/20/19 17:47	1
Cobalt	<0.0010		0.0010		mg/L		12/20/19 07:54	12/20/19 17:47	1
Lead	<0.00050		0.00050		mg/L		12/20/19 07:54	12/20/19 17:47	1
Molybdenum	<0.0050		0.0050		mg/L		12/20/19 07:54	12/20/19 17:47	1
Selenium	<0.0025		0.0025		mg/L		12/20/19 07:54	12/20/19 17:47	1

Lab Sample ID: MB 500-521655/1-A
Matrix: Water
Analysis Batch: 522322

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/20/19 07:54	12/23/19 12:30	1

Lab Sample ID: LCS 500-521655/2-A
Matrix: Water
Analysis Batch: 521915

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0986		mg/L		99	80 - 120
Barium	0.500	0.498		mg/L		100	80 - 120
Calcium	10.0	8.89		mg/L		89	80 - 120
Cobalt	0.500	0.534		mg/L		107	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.989		mg/L		99	80 - 120
Selenium	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: LCS 500-521655/2-A
Matrix: Water
Analysis Batch: 522322

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.05		mg/L		105	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-175096-7 MS
Matrix: Water
Analysis Batch: 521915

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.035		0.100	0.145		mg/L		110	75 - 125
Barium	0.016		0.500	0.519		mg/L		101	75 - 125
Calcium	15		10.0	23.9		mg/L		86	75 - 125
Cobalt	<0.0010		0.500	0.498		mg/L		100	75 - 125
Lead	<0.00050		0.100	0.103		mg/L		103	75 - 125
Molybdenum	0.40		1.00	1.41		mg/L		101	75 - 125
Selenium	<0.0025		0.100	0.106		mg/L		104	75 - 125

Lab Sample ID: 500-175096-7 MS
Matrix: Water
Analysis Batch: 522322

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.0		1.00	6.03	4	mg/L		99	75 - 125

Lab Sample ID: 500-175096-7 MSD
Matrix: Water
Analysis Batch: 521915

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.035		0.100	0.155		mg/L		120	75 - 125	7	20
Barium	0.016		0.500	0.529		mg/L		103	75 - 125	2	20
Calcium	15		10.0	25.0		mg/L		97	75 - 125	4	20
Cobalt	<0.0010		0.500	0.502		mg/L		100	75 - 125	1	20
Lead	<0.00050		0.100	0.103		mg/L		103	75 - 125	1	20
Molybdenum	0.40		1.00	1.49		mg/L		109	75 - 125	5	20
Selenium	<0.0025		0.100	0.109		mg/L		106	75 - 125	3	20

Lab Sample ID: 500-175096-7 MSD
Matrix: Water
Analysis Batch: 522322

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.0		1.00	6.11	4	mg/L		107	75 - 125	1	20

Lab Sample ID: 500-175096-7 DU
Matrix: Water
Analysis Batch: 521915

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.035		0.0360		mg/L		4	20
Barium	0.016		0.0164		mg/L		3	20
Calcium	15		15.8		mg/L		3	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.40		0.407		mg/L		3	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-175096-7 DU
Matrix: Water
Analysis Batch: 522322

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 521655

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.0		4.99		mg/L		1	20

Lab Sample ID: MB 500-522376/1-A
Matrix: Water
Analysis Batch: 522708

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/24/19 16:43	12/26/19 15:56	1
Barium	<0.0025		0.0025		mg/L		12/24/19 16:43	12/26/19 15:56	1
Calcium	<0.20		0.20		mg/L		12/24/19 16:43	12/26/19 15:56	1
Cobalt	<0.0010		0.0010		mg/L		12/24/19 16:43	12/26/19 15:56	1
Lead	<0.00050		0.00050		mg/L		12/24/19 16:43	12/26/19 15:56	1
Molybdenum	<0.0050		0.0050		mg/L		12/24/19 16:43	12/26/19 15:56	1
Selenium	<0.0025		0.0025		mg/L		12/24/19 16:43	12/26/19 15:56	1

Lab Sample ID: MB 500-522376/1-A
Matrix: Water
Analysis Batch: 522772

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		12/24/19 16:43	12/27/19 11:46	1
Boron	<0.050		0.050		mg/L		12/24/19 16:43	12/27/19 11:46	1
Calcium	<0.20		0.20		mg/L		12/24/19 16:43	12/27/19 11:46	1
Cobalt	<0.0010		0.0010		mg/L		12/24/19 16:43	12/27/19 11:46	1
Lead	<0.00050		0.00050		mg/L		12/24/19 16:43	12/27/19 11:46	1
Molybdenum	<0.0050		0.0050		mg/L		12/24/19 16:43	12/27/19 11:46	1

Lab Sample ID: LCS 500-522376/2-A
Matrix: Water
Analysis Batch: 522708

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0929		mg/L		93	80 - 120
Barium	2.00	2.02		mg/L		101	80 - 120
Calcium	10.0	9.06		mg/L		91	80 - 120
Cobalt	0.500	0.507		mg/L		101	80 - 120
Lead	0.100	0.106		mg/L		106	80 - 120
Molybdenum	1.00	0.945		mg/L		94	80 - 120
Selenium	0.100	0.0995		mg/L		99	80 - 120

Lab Sample ID: LCS 500-522376/2-A
Matrix: Water
Analysis Batch: 522772

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	1.89		mg/L		94	80 - 120
Boron	1.00	0.966		mg/L		97	80 - 120
Calcium	10.0	9.05		mg/L		90	80 - 120
Cobalt	0.500	0.515		mg/L		103	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-522376/2-A
Matrix: Water
Analysis Batch: 522772

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	1.00	0.945		mg/L		94	80 - 120

Lab Sample ID: MB 500-522799/1-A
Matrix: Water
Analysis Batch: 523089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 522799

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/27/19 16:44	12/30/19 12:08	1
Barium	<0.0025		0.0025		mg/L		12/27/19 16:44	12/30/19 12:08	1
Calcium	<0.20		0.20		mg/L		12/27/19 16:44	12/30/19 12:08	1
Cobalt	<0.0010		0.0010		mg/L		12/27/19 16:44	12/30/19 12:08	1
Lead	<0.00050		0.00050		mg/L		12/27/19 16:44	12/30/19 12:08	1
Molybdenum	<0.0050		0.0050		mg/L		12/27/19 16:44	12/30/19 12:08	1
Selenium	<0.0025		0.0025		mg/L		12/27/19 16:44	12/30/19 12:08	1

Lab Sample ID: LCS 500-522799/2-A
Matrix: Water
Analysis Batch: 523089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 522799

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	2.00	1.87		mg/L		93	80 - 120
Calcium	10.0	9.24		mg/L		92	80 - 120
Cobalt	0.500	0.525		mg/L		105	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.965		mg/L		96	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120

Lab Sample ID: MB 500-523446/1-A
Matrix: Water
Analysis Batch: 523677

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 523446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		01/06/20 07:18	01/06/20 17:33	1
Barium	<0.0025		0.0025		mg/L		01/06/20 07:18	01/06/20 17:33	1
Calcium	<0.20		0.20		mg/L		01/06/20 07:18	01/06/20 17:33	1
Cobalt	<0.0010		0.0010		mg/L		01/06/20 07:18	01/06/20 17:33	1
Lead	<0.00050		0.00050		mg/L		01/06/20 07:18	01/06/20 17:33	1
Molybdenum	<0.0050		0.0050		mg/L		01/06/20 07:18	01/06/20 17:33	1
Selenium	<0.0025		0.0025		mg/L		01/06/20 07:18	01/06/20 17:33	1

Lab Sample ID: MB 500-523446/1-A
Matrix: Water
Analysis Batch: 523733

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 523446

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		01/06/20 07:18	01/07/20 11:58	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-523446/2-A
Matrix: Water
Analysis Batch: 523677

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 523446

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.100		mg/L		100	80 - 120
Barium	0.500	0.504		mg/L		101	80 - 120
Calcium	10.0	8.97		mg/L		90	80 - 120
Cobalt	0.500	0.523		mg/L		105	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120
Molybdenum	1.00	0.985		mg/L		98	80 - 120
Selenium	0.100	0.0996		mg/L		100	80 - 120

Lab Sample ID: LCS 500-523446/2-A
Matrix: Water
Analysis Batch: 523733

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 523446

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-520703/1
Matrix: Water
Analysis Batch: 520703

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/16/19 07:40	1

Lab Sample ID: LCS 500-520703/2
Matrix: Water
Analysis Batch: 520703

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	264		mg/L		106	80 - 120

Lab Sample ID: MB 500-521154/1
Matrix: Water
Analysis Batch: 521154

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/18/19 05:51	1

Lab Sample ID: LCS 500-521154/2
Matrix: Water
Analysis Batch: 521154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	268		mg/L		107	80 - 120

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 500-175096-3 MS
Matrix: Water
Analysis Batch: 521154

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1100		250	1430	4	mg/L		118	75 - 125

Lab Sample ID: 500-175096-3 DU
Matrix: Water
Analysis Batch: 521154

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1180		mg/L		4	5

Lab Sample ID: 500-175096-4 DU
Matrix: Water
Analysis Batch: 521154

Client Sample ID: R32S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	960		974		mg/L		1	5

Lab Sample ID: MB 500-521713/1
Matrix: Water
Analysis Batch: 521713

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/20/19 08:38	1

Lab Sample ID: LCS 500-521713/2
Matrix: Water
Analysis Batch: 521713

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	268		mg/L		107	80 - 120

Lab Sample ID: 500-175096-5 MS
Matrix: Water
Analysis Batch: 521713

Client Sample ID: G31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1100		250	1300	4	mg/L		81	75 - 125

Lab Sample ID: 500-175096-5 DU
Matrix: Water
Analysis Batch: 521713

Client Sample ID: G31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1100		1110		mg/L		1	5

Lab Sample ID: 500-175096-6 DU
Matrix: Water
Analysis Batch: 521713

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1000		1030		mg/L		2	5

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-522616/1
Matrix: Water
Analysis Batch: 522616

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/26/19 22:57	1

Lab Sample ID: LCS 500-522616/2
Matrix: Water
Analysis Batch: 522616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	272		mg/L		109	80 - 120

Lab Sample ID: 500-175096-9 MS
Matrix: GW
Analysis Batch: 522616

Client Sample ID: G46S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000		250	1300	4	mg/L		110	75 - 125

Lab Sample ID: 500-175096-9 DU
Matrix: GW
Analysis Batch: 522616

Client Sample ID: G46S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1000		1010		mg/L		1	5

Lab Sample ID: 500-175096-10 DU
Matrix: GW
Analysis Batch: 522616

Client Sample ID: R08S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	820		836		mg/L		2	5

Lab Sample ID: MB 500-522961/1
Matrix: Water
Analysis Batch: 522961

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/30/19 08:44	1

Lab Sample ID: LCS 500-522961/2
Matrix: Water
Analysis Batch: 522961

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	256		mg/L		102	80 - 120

Lab Sample ID: 500-175096-15 MS
Matrix: Water
Analysis Batch: 522961

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000		250	1260	4	mg/L		99	75 - 125

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: 500-175096-15 DU
Matrix: Water
Analysis Batch: 522961

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	1000		984		mg/L		3	5

Lab Sample ID: MB 500-523422/1
Matrix: Water
Analysis Batch: 523422

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			01/06/20 03:19	1

Lab Sample ID: LCS 500-523422/2
Matrix: Water
Analysis Batch: 523422

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	254		mg/L		102	80 - 120

Lab Sample ID: 500-175096-18 MS
Matrix: Water
Analysis Batch: 523422

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	940		250	1200		mg/L		104	75 - 125

Lab Sample ID: 500-175096-18 DU
Matrix: Water
Analysis Batch: 523422

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	940		946		mg/L		1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-521937/12
Matrix: Water
Analysis Batch: 521937

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/21/19 16:06	1

Lab Sample ID: LCS 500-521937/13
Matrix: Water
Analysis Batch: 521937

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.1		mg/L		100	85 - 115

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 500-175096-5 MS
Matrix: Water
Analysis Batch: 521937

Client Sample ID: G31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	190	F1	50.0	225	F1	mg/L		68	75 - 125

Lab Sample ID: 500-175096-5 MSD
Matrix: Water
Analysis Batch: 521937

Client Sample ID: G31S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	190	F1	50.0	235		mg/L		88	75 - 125	4	20

Lab Sample ID: MB 500-523397/12
Matrix: Water
Analysis Batch: 523397

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			01/03/20 16:27	1

Lab Sample ID: LCS 500-523397/13
Matrix: Water
Analysis Batch: 523397

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.6		mg/L		105	85 - 115

Lab Sample ID: 500-175096-13 MS
Matrix: Water
Analysis Batch: 523397

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	100		50.0	140		mg/L		75	75 - 125

Lab Sample ID: 500-175096-13 MSD
Matrix: Water
Analysis Batch: 523397

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	100		50.0	141		mg/L		77	75 - 125	1	20

Lab Sample ID: 500-175096-15 MS
Matrix: Water
Analysis Batch: 523397

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	96		50.0	135		mg/L		78	75 - 125

Lab Sample ID: 500-175096-15 MSD
Matrix: Water
Analysis Batch: 523397

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	96		50.0	134		mg/L		75	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-521061/3
Matrix: Water
Analysis Batch: 521061

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/17/19 10:18	1

Lab Sample ID: LCS 500-521061/4
Matrix: Water
Analysis Batch: 521061

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.1		mg/L		101	80 - 120

Lab Sample ID: MB 500-523784/3
Matrix: Water
Analysis Batch: 523784

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			01/07/20 13:16	1

Lab Sample ID: LCS 500-523784/4
Matrix: Water
Analysis Batch: 523784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.6		mg/L		106	80 - 120

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-471445/6
Matrix: Water
Analysis Batch: 471445

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/23/19 09:27	1

Lab Sample ID: LCS 400-471445/37
Matrix: Water
Analysis Batch: 471445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.8		mg/L		98	90 - 110

Lab Sample ID: MRL 400-471445/3
Matrix: Water
Analysis Batch: 471445

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		59	50 - 150

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MB 400-471466/5
Matrix: Water
Analysis Batch: 471466

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/23/19 12:49	1

Lab Sample ID: LCS 400-471466/6
Matrix: Water
Analysis Batch: 471466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	13.5		mg/L		90	90 - 110

Lab Sample ID: MRL 400-471466/3
Matrix: Water
Analysis Batch: 471466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		65	50 - 150

Lab Sample ID: 500-175096-8 MS
Matrix: Water
Analysis Batch: 471466

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	120		10.0	116	4	mg/L		10	77 - 128

Lab Sample ID: 500-175096-8 MSD
Matrix: Water
Analysis Batch: 471466

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	120		10.0	116	4	mg/L		5	77 - 128	0	5

Lab Sample ID: MB 400-472105/6
Matrix: Water
Analysis Batch: 472105

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/27/19 17:41	1

Lab Sample ID: LCS 400-472105/7
Matrix: Water
Analysis Batch: 472105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	13.5		mg/L		90	90 - 110

Lab Sample ID: MRL 400-472105/3
Matrix: Water
Analysis Batch: 472105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		75	50 - 150

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-472162/5
Matrix: Water
Analysis Batch: 472162

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/28/19 07:55	1

Lab Sample ID: LCS 400-472162/15
Matrix: Water
Analysis Batch: 472162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.0		mg/L		100	90 - 110

Lab Sample ID: MRL 400-472162/3
Matrix: Water
Analysis Batch: 472162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	<5.0		mg/L		56	50 - 150

Lab Sample ID: MB 400-473163/5
Matrix: Water
Analysis Batch: 473163

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			01/06/20 23:48	1

Lab Sample ID: LCS 400-473163/52
Matrix: Water
Analysis Batch: 473163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.2		mg/L		95	90 - 110

Lab Sample ID: 500-175096-13 MS
Matrix: Water
Analysis Batch: 473163

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	340		10.0	340	4	mg/L		-33	77 - 128

Lab Sample ID: 500-175096-13 MSD
Matrix: Water
Analysis Batch: 473163

Client Sample ID: T01S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	340		10.0	341		mg/L		-16	77 - 128	1	5

Lab Sample ID: MB 400-473946/22
Matrix: Water
Analysis Batch: 473946

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			01/14/20 10:07	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: LCS 400-473946/5
Matrix: Water
Analysis Batch: 473946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.8		mg/L		105	90 - 110

Lab Sample ID: MRL 400-473946/20
Matrix: Water
Analysis Batch: 473946

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.54		mg/L		111	50 - 150

Chain of Custody Record

387587 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			500-175096

500-175096 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	TDS, Fl, Cl, SO4	Radium 228	Radium 226	Combined 226/228	Total Metals - As, B, Ba, Ca, Pb, Li, Mo, S	Sample Specific Notes:
1 G335	12/13/19	1257		W	5			-	-	-	-	-	
2 DUP	12/13/19	1257		W	5			-	-	-	-	-	DUP of G335

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

3.6 48

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TAL	12/13/19 @1535			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA-CHI	Date/Time: 12/13/19 1535

Chain of Custody Record

404311 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			Job / SDG No.: 500-175096
Site:	☐ 2 days			
P O #	☐ 1 day			

500-175096 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, Ba, Co, Pb, Li, Mo, S	TDS, F, Cl, SO4
3 G305	12/17/19	0933		W	5			✓	✓	✓	✓	✓
4 R325	12/17/19	1212		W	5			✓	✓	✓	✓	✓

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 4.3 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	12/17/19 @ 1438			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAL CHT	12/17/19 1438

Chain of Custody Record

404304 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Ohio; mo,S

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			Job / SDG No.: 500-175096
Site: 4219 GW	☐ 2 days			
P O #	☐ 1 day			

500-175096 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total metals As, B, Ba, Ca	TDS, Fl, Cl, SO4	Sample Specific Notes:
G315	12/18/19	1039		W	5			1	1	1	1	1	
G485	12/18/19	1251		W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 5.9 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	12/18/19 @ 1450			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA-CHI	12/19/19 0650

Chain of Custody Record

404120 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 4219 CW	☐ 2 days			Job / SDG No.: 500-175096
P O #	☐ 1 day			

500-175096 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Ba, B, Ca, Co, Li, Mo, S	TDS, Fl, Cl, SO4	Sample Specific Notes:
8 G475	12/19/19	1020		W	5			/	/	/	/	/	
G455	12/19/19	1316		W	5			/	/	/	/	/	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 4.2 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	12/19/19 1607			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA-CHI	12/19/19 1607

Chain of Custody Record

494112

Environment Testi
TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

500-175096 COC

TAL-821

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:
Address:	Analysis Turnaround Time		_____ of _____ COCs
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS		Sampler:
Phone:	TAT if different from Below _____		For Lab Use Only:
Fax:	☐ 2 weeks		Walk-in Client:
Project Name: Joliet #9 CCR	☐ 1 week		Lab Sampling:
Site: 4019 CU	☐ 2 days		Job / SDG No.: 500-175096
P O #	☐ 1 day		

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ba, Ca, Pb, Li, Mo, S	TDS, Fl, Cl, SO4	Sample Specific Notes:
9	G465	12/23/19	0925		W	5			✓	✓	✓	✓	✓	
10	R085	12/23/19	1025		W	5			✓	✓	✓	✓	✓	
11	G205	12/23/19	1115		W	5			✓	✓	✓	✓	✓	
12	G445	12/23/19	1350		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

1.3 → 2.3, 2.0

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.: 3

	Company	Date/Time		Company	Date/Time
Relinquished by: CJ	THE	12/23/19 1520	Received by:	TA	12/24/19 0520
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

404310

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:
Address:	**Analysis Turnaround Time**		
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS		
Phone:	TAT if different from Below _____		
Fax:	☐ 2 weeks		
Project Name: Joliet #9 CCR	☐ 1 week		
Site: 4819 GW	☐ 2 days		
P O #	☐ 1 day		

500-175096 COC

COC No:
_____ of _____ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.: 500-175096

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As,B,Ba,Ca,Co,Li,Mo,S	TDS, Fl, Cl, SO4	Sample Specific Notes:
13	TOIS	12/26/19		0847	W	5			/	/	/	/	/	
14	TOYS	12/26/19		1302	W	5			/	/	/	/	/	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

4.4 48hr

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
SL	TAL	12/26/19 @ 1605		TA	12/26/19 1605
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

404305 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Mo's

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:
Address:	Analysis Turnaround Time		
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS		
Phone:	TAT if different from Below _____		
Fax:	☐ 2 weeks		
Project Name: Joliet #9 CCR	☐ 1 week		
Site: 409 CW	☐ 2 days.		
P O #	☐ 1 day		

500-175096 COC

COC No:
_____ of _____ COCs
Sampler:
For Lab Use Only:
Walk-in Client:
Lab Sampling:
Job / SDG No.: 500-175096
Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals (As, B, Ba, Ca, Co, Li, Mo, S)	TDS, Fl, Cl, SO4
15 TO25	12/27/19	0854		W	5			-	-	-	-	-
16 TO85	12/27/19	1107		W	5			-	-	-	-	-
17 TO35	12/27/19	1333		W	5			-	-	-	-	-

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

4.2 48 gt.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	T&L	12/27/19 @ 1440		TA	12/27/19 1440
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record

404306 eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 4019 GW	☐ 2 days			Job / SDG No.: 500-175096
P O #	☐ 1 day			

500-175096 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ba, Cr, Co, Li, Mo, S	TDS, Fl, Cl, SO4	Sample Specific Notes:
T095	12/30/19	0826		W	5			1	1	1	1	1	
T055	12/30/19	1012		W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

5.3 48hr

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
SL	THC	12/30/19 1210			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Ashley Scott	TA-CHT	12/30/19 1210

Chain of Custody Record

387644

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lang	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 4019 GW	☐ 2 days			Job / SDG No.: 500-175096
P O #	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ba, Ca, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4	Sample Specific Notes:
TO65	12/31/19	0930		GW	5			1	1	1	1	1	

500-175096 COC

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

2.9 49qt.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
SL	TAL	12/31/19 1200			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Ellen Scott	Company: TA CHI	Date/Time: 12/31/19 1200

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-129637.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/26/2019			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Total Number of containers	Special Instructions/Note:
			Preservation Code:							
G33S (500-175096-1)	12/13/19	12:57 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
DUP (500-175096-2)	12/13/19	12:57 Central		Water			X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Stephanie Hernandez	Date/Time: 12-13-19 16:00	Company TA	Received by:	Date/Time: 12.14.19 0855	Company ETASTC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-129942.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 1/24/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G46S (500-175096-9)	12/23/19	09:25 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-175096-10)	12/23/19	10:25 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G20S (500-175096-11)	12/23/19	11:15 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-175096-12)	12/23/19	13:50 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	12.26.19 1500	TA		12.27.19 8:15	ETASTL
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-130114.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 1/15/2020			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T06S (500-175096-20)	12/31/19	09:30 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

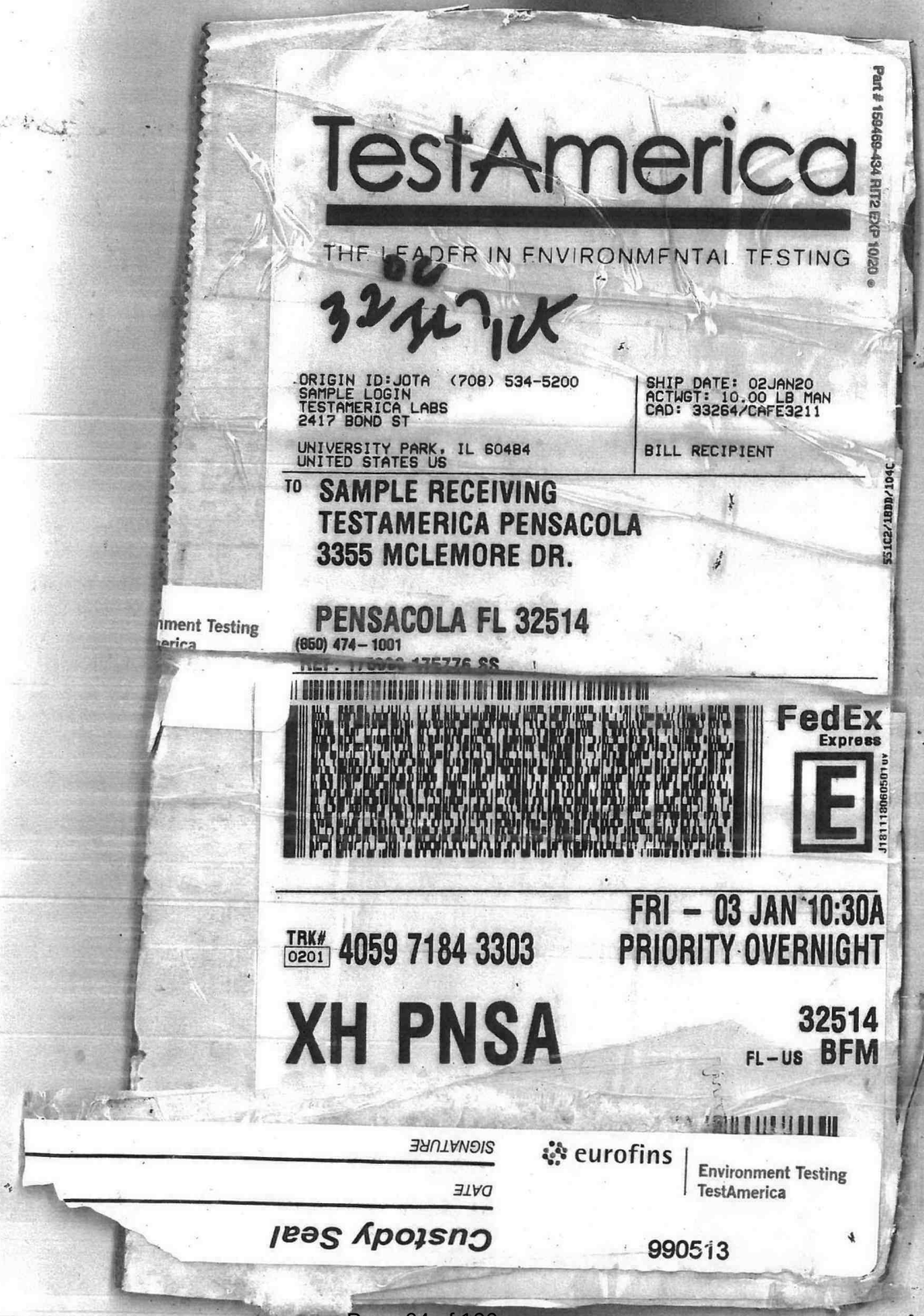
Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	01.02.20 1300	TA	Broadway	01.03.20 907	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.2° IR7

Ver: 01/16/2019


TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
32514
ORIGIN ID:JOTA (708) 534-5200
SAMPLE LOGIN
TESTAMERICA LABS
2417 BOND ST
UNIVERSITY PARK, IL 60484
UNITED STATES US
SHIP DATE: 02JAN20
ACTWGT: 10.00 LB MAN
CAD: 33264/CAFE3211
BILL RECIPIENT
TO SAMPLE RECEIVING
TESTAMERICA PENSACOLA
3355 MCLEMORE DR.
PENSACOLA FL 32514
(850) 474-1001
FedEx
Express
TRK# 0201 4059 7184 3303
FRI - 03 JAN 10:30A
PRIORITY OVERNIGHT
XH PNSA
32514
FL-US BFM
eurofins
Environment Testing
TestAmerica
SIGNATURE
DATE
Custody Seal
990513

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-129636.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 12/30/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G33S (500-175096-1)	12/13/19	12:57 Central		Water			X	1	
DUP (500-175096-2)	12/13/19	12:57 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	12-13-19 16:00	TA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 12-14-19 8:28	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.6 & IR

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-129698.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 1/6/2020			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G30S (500-175096-3)	12/17/19	09:33 Central		Water			X	1	
R32S (500-175096-4)	12/17/19	12:12 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	12-17-19 16:00	TA	Eodum	12-18-19 947	TA Pen
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.9°C IR8

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-129784.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 12/27/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
G31S (500-175096-5)	12/18/19	10:39 Central		Water			X	1	
G48S (500-175096-6)	12/18/19	12:51 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Stephanie Hernandez	12-19-19 1515	TA	M Jaquaway	12-20-19 932	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.4 C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-129794.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 1/6/2020			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
		Preservation Code:							
G47S (500-175096-7)	12/19/19	10:20 Central		Water			X	1	
G45S (500-175096-8)	12/19/19	13:16 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	12-19-19 1600	TA	M Madaway	12-20-19 932	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.4°C IR7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-129941.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 1/9/2020			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G46S (500-175096-9)	12/23/19	09:25 Central		Water			X	1	
R08S (500-175096-10)	12/23/19	10:25 Central		Water			X	1	
G20S (500-175096-11)	12/23/19	11:15 Central		Water			X	1	
G44S (500-175096-12)	12/23/19	13:50 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	12-26-19 1500	TA			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				12-27-19 0855	TAPEN

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.2°C IR-7

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Lang, Eric A.	Carrier Tracking No(s):	COC No: 500-130009.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: eric.lang@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-175096-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 1/14/2020			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM4500_SO4_E	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T09S (500-175096-18)	12/30/19	08:26 Central		Water			X	1	
T05S (500-175096-19)	12/30/19	10:12 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	12/30/19 1500	TA	Eodum	12-31-19 842	TAEN
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 1.5°C IR7

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6,4.3,5.9,4.2,1.3,2.0,4.4, 4.2,5.3,2.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 2
Creator: Treadaway, Kristen N

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/14/19 12:45 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 5
Creator: Odum, Edward L

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/18/19 02:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.9°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 7
Creator: Gore, Beija K

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/20/19 04:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	987798
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.4 °C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 9
Creator: Conrady, Hank W

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/27/19 02:55 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 11
Creator: Odum, Edward L

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/28/19 11:52 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 13
Creator: Odum, Edward L

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/31/19 11:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.5°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-175096-1

Login Number: 175096
List Number: 14
Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola
List Creation: 01/03/20 01:49 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2°C IR7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G33S

Lab Sample ID: 500-175096-1
Matrix: Water
Date Collected: 12/13/19 12:57
Date Received: 12/13/19 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	521635	12/20/19 01:44	JEF	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	521733	12/19/19 15:43	FXG	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		5	521915	12/20/19 11:57	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	520703	12/16/19 08:34	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	521937	12/21/19 16:17	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	521061	12/17/19 11:37	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	471445	12/23/19 10:43	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/13/19 12:57	JVB	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-175096-2
Matrix: Water
Date Collected: 12/13/19 12:57
Date Received: 12/13/19 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	521635	12/20/19 01:49	JEF	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	521733	12/19/19 15:47	FXG	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		5	521915	12/20/19 12:01	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	520703	12/16/19 08:36	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	521937	12/21/19 16:18	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	521061	12/17/19 11:42	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	471445	12/23/19 10:43	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/13/19 12:57	JVB	TAL CHI

Client Sample ID: G30S

Lab Sample ID: 500-175096-3
Matrix: Water
Date Collected: 12/17/19 09:33
Date Received: 12/17/19 14:38

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	521635	12/20/19 01:53	JEF	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	521733	12/19/19 15:51	FXG	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	521915	12/20/19 12:04	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	521154	12/18/19 05:56	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521937	12/21/19 16:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 13:37	MS	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G30S
Date Collected: 12/17/19 09:33
Date Received: 12/17/19 14:38

Lab Sample ID: 500-175096-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	471445	12/23/19 10:43	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/17/19 09:33	JVB	TAL CHI

Client Sample ID: R32S
Date Collected: 12/17/19 12:12
Date Received: 12/17/19 14:38

Lab Sample ID: 500-175096-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	522048	12/20/19 17:10	EEN	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	521733	12/19/19 15:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			521415	12/19/19 07:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	521915	12/20/19 12:08	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	521154	12/18/19 06:04	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521937	12/21/19 16:58	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 13:42	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	471445	12/23/19 10:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/17/19 12:12	JVB	TAL CHI

Client Sample ID: G31S
Date Collected: 12/18/19 10:39
Date Received: 12/18/19 14:50

Lab Sample ID: 500-175096-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521599	12/19/19 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	522048	12/20/19 17:37	EEN	TAL CHI
Total Recoverable	Prep	3005A			521599	12/19/19 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	521915	12/20/19 14:12	FXG	TAL CHI
Total Recoverable	Prep	3005A			521599	12/19/19 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	522322	12/23/19 12:23	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	521713	12/20/19 08:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521937	12/21/19 16:58	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 13:49	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	471445	12/23/19 10:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/18/19 10:39	JVB	TAL CHI

Client Sample ID: G48S
Date Collected: 12/18/19 12:51
Date Received: 12/18/19 14:50

Lab Sample ID: 500-175096-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521599	12/19/19 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	522048	12/20/19 17:42	EEN	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G48S

Lab Sample ID: 500-175096-6
Matrix: Water
Date Collected: 12/18/19 12:51
Date Received: 12/18/19 14:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521599	12/19/19 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	521915	12/20/19 14:16	FXG	TAL CHI
Total Recoverable	Prep	3005A			521599	12/19/19 16:45	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	522322	12/23/19 12:26	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	521713	12/20/19 08:50	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521937	12/21/19 17:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 13:55	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	471445	12/23/19 10:47	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/18/19 12:51	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-175096-7
Matrix: Water
Date Collected: 12/19/19 10:20
Date Received: 12/19/19 16:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521655	12/20/19 07:54	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	522048	12/20/19 17:56	EEN	TAL CHI
Total Recoverable	Prep	3005A			521655	12/20/19 07:54	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	521915	12/20/19 17:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			521655	12/20/19 07:54	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	522322	12/23/19 12:38	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	521713	12/20/19 08:56	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521937	12/21/19 17:02	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:12	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	471445	12/23/19 10:43	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/19/19 10:20	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-175096-8
Matrix: Water
Date Collected: 12/19/19 13:16
Date Received: 12/19/19 16:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			521655	12/20/19 07:54	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	522048	12/20/19 18:17	EEN	TAL CHI
Total Recoverable	Prep	3005A			521655	12/20/19 07:54	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	521915	12/20/19 18:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			521655	12/20/19 07:54	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	522322	12/23/19 12:57	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	521713	12/20/19 08:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521937	12/21/19 17:02	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:16	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	471466	12/23/19 13:20	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/19/19 13:16	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G46S

Lab Sample ID: 500-175096-9
Matrix: GW
Date Collected: 12/23/19 09:25
Date Received: 12/23/19 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	522538	12/26/19 09:38	JEF	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	522708	12/26/19 17:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	522772	12/27/19 11:53	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522616	12/26/19 23:02	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:28	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:20	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	472105	12/27/19 18:52	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/23/19 09:25	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-175096-10
Matrix: GW
Date Collected: 12/23/19 10:25
Date Received: 12/23/19 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	522538	12/26/19 09:42	JEF	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	522708	12/26/19 17:24	FXG	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	522772	12/27/19 11:57	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522616	12/26/19 23:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:23	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	472105	12/27/19 18:31	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/23/19 10:25	JVB	TAL CHI

Client Sample ID: G20S

Lab Sample ID: 500-175096-11
Matrix: GW
Date Collected: 12/23/19 11:15
Date Received: 12/23/19 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	522538	12/26/19 09:46	JEF	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	522708	12/26/19 17:28	FXG	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	522772	12/27/19 12:01	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522616	12/26/19 23:15	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	523397	01/03/20 16:33	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:30	MS	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: G20S

Lab Sample ID: 500-175096-11
Matrix: GW
Date Collected: 12/23/19 11:15
Date Received: 12/23/19 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		5	472105	12/27/19 18:33	HES	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/23/19 11:15	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-175096-12
Matrix: GW
Date Collected: 12/23/19 13:50
Date Received: 12/23/19 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	522538	12/26/19 09:50	JEF	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	522772	12/27/19 12:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	522772	12/27/19 13:37	FXG	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523089	12/30/19 13:47	FXG	TAL CHI
Total Recoverable	Prep	3005A			522376	12/24/19 16:43	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523081	12/30/19 12:30	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522616	12/26/19 23:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	523397	01/03/20 16:34	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:36	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	472162	12/28/19 09:12	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/23/19 13:50	JVB	TAL CHI

Client Sample ID: T01S

Lab Sample ID: 500-175096-13
Matrix: Water
Date Collected: 12/26/19 08:47
Date Received: 12/26/19 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	523133	12/31/19 05:53	JEF	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523089	12/30/19 12:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	523516	12/31/19 15:20	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522616	12/26/19 23:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:33	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:41	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	473163	01/07/20 00:33	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/26/19 08:47	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T04S

Lab Sample ID: 500-175096-14

Date Collected: 12/26/19 13:02

Matrix: Water

Date Received: 12/26/19 16:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	523133	12/31/19 05:57	JEF	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523089	12/30/19 12:50	FXG	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523516	12/31/19 15:23	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522616	12/26/19 23:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	523397	01/03/20 16:40	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:45	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	473163	01/07/20 00:57	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/26/19 13:02	JVB	TAL CHI

Client Sample ID: T02S

Lab Sample ID: 500-175096-15

Date Collected: 12/27/19 08:54

Matrix: Water

Date Received: 12/27/19 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	523133	12/31/19 06:02	JEF	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523089	12/30/19 12:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	523516	12/31/19 15:27	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522961	12/30/19 08:48	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:49	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	473163	01/07/20 00:18	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/27/19 08:54	JVB	TAL CHI

Client Sample ID: T08S

Lab Sample ID: 500-175096-16

Date Collected: 12/27/19 11:07

Matrix: Water

Date Received: 12/27/19 14:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	523133	12/31/19 06:06	JEF	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523089	12/30/19 12:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	523516	12/31/19 15:31	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522961	12/30/19 08:56	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 14:54	MS	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T08S
Date Collected: 12/27/19 11:07
Date Received: 12/27/19 14:40

Lab Sample ID: 500-175096-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	473163	01/07/20 01:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/27/19 11:07	JVB	TAL CHI

Client Sample ID: T03S
Date Collected: 12/27/19 13:33
Date Received: 12/27/19 14:40

Lab Sample ID: 500-175096-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	523133	12/31/19 06:11	JEF	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	523089	12/30/19 13:02	FXG	TAL CHI
Total Recoverable	Prep	3005A			522799	12/27/19 16:44	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	523516	12/31/19 15:35	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	522961	12/30/19 08:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:39	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 15:15	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	473163	01/07/20 01:07	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/27/19 13:33	JVB	TAL CHI

Client Sample ID: T09S
Date Collected: 12/30/19 08:26
Date Received: 12/30/19 12:10

Lab Sample ID: 500-175096-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	523614	01/07/20 04:46	JEF	TAL CHI
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	523677	01/06/20 18:37	FXG	TAL CHI
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	523733	01/07/20 12:06	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	523422	01/06/20 03:24	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:43	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 15:21	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	473946	01/14/20 09:53	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/30/19 08:26	JVB	TAL CHI

Client Sample ID: T05S
Date Collected: 12/30/19 10:12
Date Received: 12/30/19 12:10

Lab Sample ID: 500-175096-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	523614	01/07/20 04:50	JEF	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-175096-1

Client Sample ID: T05S

Lab Sample ID: 500-175096-19

Date Collected: 12/30/19 10:12

Matrix: Water

Date Received: 12/30/19 12:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	523677	01/06/20 18:41	FXG	TAL CHI
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6020A		100	523733	01/07/20 12:10	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	523422	01/06/20 03:32	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	523397	01/03/20 17:44	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 15:25	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	473163	01/07/20 09:10	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/30/19 10:12	JVB	TAL CHI

Client Sample ID: T06S

Lab Sample ID: 500-175096-20

Date Collected: 12/31/19 09:30

Matrix: Water

Date Received: 12/31/19 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	523614	01/07/20 04:55	JEF	TAL CHI
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	523677	01/06/20 18:44	FXG	TAL CHI
Total Recoverable	Prep	3005A			523446	01/06/20 07:18	LMN	TAL CHI
Total Recoverable	Analysis	6020A		5	523733	01/07/20 12:14	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	523422	01/06/20 03:35	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	523397	01/03/20 17:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	523784	01/07/20 15:28	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	473163	01/07/20 09:10	RRC	TAL PEN
Total/NA	Analysis	Field Sampling		1	524727	12/31/19 09:30	JVB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/13/19 Start Purge: 1235 (2400 Hr. Clock) End Purge: 1257

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.57

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 1.73 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.66 (ft./msl)

Water Level 26.97 (ft.)

Ground Water Elev. 508.69 (ft./msl)

Well Bottom Elevation *452.72 (ft./msl)

	1st	2nd	Final	
pH	7.61	7.59	7.59	(std.)
SC	622	625	625	(umhos/cm)
Temp.	12.53	12.51	12.51	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Gray, Slight Turbidity, No Odor

Weather Conditions: 49°F, Partly Cloudy, Smoke 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 26.97 - 1.73 = 25.24 (ft.)

Levels were taken on 12/13/19 @ 1230.

Updated: (12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175090-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 1.73 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *535.66 (ft./msl) Temp. _____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *452.72 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @ .

* DUP of G33S

Updated: (12-13-2019)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175016-3

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging: Bladder Pump — Dedicated (Y/N) Y
Sampling: Bladder Pump — Dedicated (Y/N) Y

PURGING INFORMATION

Purge Date: 12/17/19 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0933

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.70 (ft./msl)
Water Level 1.42 (ft.)
Ground Water Elev. 523.28 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	8.15	8.15	8.15	(std.)
SC	1,464	1459	1459	(umhos/cm)
Temp.	4.72	4.76	4.76	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 23°F, Partly Cloudy, W winds e 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 1.42 - 2.31 = -0.89 (ft.)
Levels were taken on 12/17/19 @ 0910.

(Updated 10-102018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175916-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/17/19 Start Purge: 1150 (2400 Hr. Clock) End Purge: 1212

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.14

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.03 (ft)

Ref. Measuring Pt. TIC

Well Elevation *536.99 (ft./msl)

Water Level 18.93 (ft.)

Ground Water Elev. 518.06 (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.68	7.69	7.69	(std.)
SC	947	947	947	(umhos/cm)
Temp.	10.90	10.86	10.86	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 23°F, Cloudy, SW winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 18.93 - 2.03 = 16.90 (ft.)

Levels were taken on 12/17/19 @ 1145.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/18/19 Start Purge: 1020 (2400 Hr. Clock) End Purge: 1039

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.86

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.58 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.78 (ft./msl)
Water Level 27.58 (ft.)
Ground Water Elev. 508.20 (ft./msl)
Well Bottom Elevation *453.36 (ft./msl)

	1st	2nd	Final	
pH	7.47	7.48	7.48	(std.)
SC	1590	1570	1570	(umhos/cm)
Temp.	11.87	11.64	11.64	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 16°F, Fair, NW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 27.58 - 2.58 = 25.00 (ft.)
Levels were taken on 12/18/19 @ 1015.

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-16

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/18/19 Start Purge: 1230 (2400 Hr. Clock) End Purge: 1251

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.95

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.45 (ft)

Ref. Measuring Pt. TIC

Well Elevation *620.78 (ft./msl)

Water Level 96.95 (ft.)

Ground Water Elev. 523.83 (ft./msl)

Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	8.64	8.69	8.69	(std.)
SC	1336	1338	1338	(umhos/cm)
Temp.	7.96	8.01	8.01	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 18°F, Sunny, NW winds 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 96.95 - 2.45 = 94.50 (ft)

Levels were taken on 12/18/19 @ 1215.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175010-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/19/19 Start Purge: 1005 (2400 Hr. Clock) End Purge: 1020

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.50 (ft)

Ref. Measuring Pt. TIC

Well Elevation *612.10 (ft./msl)

Water Level 90.76 (ft.)

Ground Water Elev. 521.34 (ft./msl)

Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	8.72	8.72	8.72	(std.)
SC	1480	1490	1490	(umhos/cm)
Temp.	10.24	10.13	10.13	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 29°F, Sunny, SW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 90.76 - 2.50 = 88.26 (ft.)

Levels were taken on 12/19/19 @ 0950.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175016-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/19/19 Start Purge: 1300 (2400 Hr. Clock) End Purge: 1316

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.97 (ft)

Ref. Measuring Pt. TIC

Well Elevation *603.31 (ft./msl)

Water Level 61.18 (ft.)

Ground Water Elev. ~~542.72~~ 542.13 (ft./msl)

Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.43	7.44	7.44	(std.)
SC	1057	1055	1055	(umhos/cm)
Temp.	12.18	12.19	12.19	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 35°F, Sunny, SW winds 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 61.18 - 2.97 = 58.21 (ft)

Levels were taken on 12/19/19 @ 1255

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/23/19 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0925

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.32 (ft./msl)

Water Level 99.38 (ft.)

Ground Water Elev. 502.05 501.94 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.57	7.58	7.58	(std.)
SC	1193	1197	1197	(umhos/cm)
Temp.	12.47	12.48	12.40	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, Slight Turbidity, No Odor

Weather Conditions: 41°F, Sunny, SW winds 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 99.38 - 2.70 = 96.68 (ft.)

Levels were taken on 12/23/19 @ 0900.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-1D

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/23/19 Start Purge: 1010 (2400 Hr. Clock) End Purge: 1025

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.62 (ft./msl)
Water Level 67.20 (ft.)
Ground Water Elev. 511.42 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	7.85	7.82	7.82	(std.)
SC	928	954	954	(umhos/cm)
Temp.	12.00	11.99	11.99	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 46° F, Sunny, SW winds @ 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 67.20 - 2.55 = 64.65 (ft)
Levels were taken on 12/23/19 @ 1005.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-11

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/23/19 Start Purge: 1055 (2400 Hr. Clock) End Purge: 1115

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.78 (ft)

Ref. Measuring Pt. TIC

Well Elevation *580.33 (ft./msl)

Water Level 41.46 (ft.)

Ground Water Elev. 538.87 (ft./msl)

Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.81	7.82	7.82	(std.)
SC	581	585	585	(umhos/cm)
Temp.	13.46	13.43	13.43	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 49°F, Sunny, SW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 41.46 - 2.78 = 38.68 (ft.)

Levels were taken on 12/23/19 @ 1045.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-12

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/23/19 Start Purge: 1335 (2400 Hr. Clock) End Purge: 1350

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.18 (ft)
Ref. Measuring Pt. TIC
Well Elevation *586.69 (ft./msl)
Water Level 81.05 (ft.)
Ground Water Elev. 505.64 (ft./msl)
Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.24	7.24	7.24	(std.)
SC	931	930	930	(umhos/cm)
Temp.	11.57	11.56	11.56	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 51 °F, Sunny, W winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 81.05 - 2.18 = 78.87 (ft.)
Levels were taken on 12/23/19 @ 1330.

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T01S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-13

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/26/19 Start Purge: 0825 (2400 Hr. Clock) End Purge: 0847

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.28

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.48 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 621.78 (ft./msl)
Water Level 112.83 (ft.)
Ground Water Elev. 508.95 (ft./msl)
Well Bottom Elevation * 451.46 (ft./msl)

	1st	2nd	Final	
pH	7.86	7.86	7.86	(std.)
SC	1201	1186	1186	(umhos/cm)
Temp.	11.32	11.29	11.29	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, High Turbidity, Slight Odor
Weather Conditions: 53°F, Sunny, SW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 112.83-2.48 = 110.35 (ft.)
Levels were taken on 12/26/19 @ 0805.
* Total Depth = 170.00

(Updated 12-11-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T04S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-14

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/26/19 Start Purge: 1240 (2400 Hr. Clock) End Purge: 1302

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.71

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.42 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 631.35 (ft./msl)

Water Level 152.89 (ft.)

Ground Water Elev. 478.46 (ft./msl)

Well Bottom Elevation * 458.07 (ft./msl)

	1st	2nd	Final	
pH	7.38	7.37	7.37	(std.)
SC	705	707	707	(umhos/cm)
Temp.	15.74	15.76	15.76	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Gray, Moderate Turbidity, Slight Odor

Weather Conditions: 62°F, Partly Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 152.89 - 2.42 = 150.47 (ft.)

Levels were taken on 12/26/19 @ 1225.

* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T02S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-15

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/27/19 Start Purge: 0835 (2400 Hr. Clock) End Purge: 0854

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.33 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 626.16 (ft./msl)
Water Level 129.79 (ft.)
Ground Water Elev. 496.37 (ft./msl)
Well Bottom Elevation * 453.40 (ft./msl)

	1st	2nd	Final	
pH	8.02	8.03	8.03	(std.)
SC	1177	1178	1178	(umhos/cm)
Temp.	5.66	5.67	5.67	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 35°F, Cloudy, W winds 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 129.79 - 2.33 = 127.46 (ft.)
Levels were taken on 12/27/19 @ 0815 .
* Total Depth = 172.75

(Updated: 12-11-2018))

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-1.10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/27/19 Start Purge: 1045 (2400 Hr. Clock) End Purge: 1107

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.57

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.38 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 627.39 (ft./msl)

Water Level 125.19 (ft.)

Ground Water Elev. 502.20 (ft./msl)

Well Bottom Elevation * 447.38 (ft./msl)

	1st	2nd	Final	
pH	8.02	8.01	8.01	(std.)
SC	1069	1070	1070	(umhos/cm)
Temp.	5.35	5.33	5.33	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 35°F, Cloudy, W winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 125.19 - 2.38 = 122.81 (ft.)

Levels were taken on 12/27/19 @ 1025

* Total Deth = 180.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-17

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging: Bladder Pump — Dedicated (Y/N)
Sampling: Bladder Pump — Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/27/19 Start Purge: 1315 (2400 Hr. Clock) End Purge: 1333

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.89 (ft./msl)
Water Level 134.30 (ft.)
Ground Water Elev. 495.59 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.58	7.57	7.57	(std.)
SC	1,046	1,037	1,037	(umhos/cm)
Temp.	10.81	10.80	10.80	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 35°F, Cloudy, W winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 134.30 - 3.08 = 131.22 (ft.)
Levels were taken on 12/27/19 @ 1305
* Total Depth = 172.95

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T09S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175086-18

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/30/19 Start Purge: 0810 (2400 Hr. Clock) End Purge: 0826

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.52

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 603.74 (ft./msl)

Water Level 101.25 (ft.)

Ground Water Elev. 502.49 (ft./msl)

Well Bottom Elevation * 444.80 (ft./msl)

	1st	2nd	Final	
pH	7.68	7.68	7.68	(std.)
SC	1,080	1,085	1,085	(umhos/cm)
Temp.	7.51	7.47	7.47	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 34°F, Cloudy, SW winds 10-15 mph

Other: *Reference Measurement (updated 02/19/14)

Depth To Water from L.S. = 101.25 - 2.40 = 98.85 (ft.)

Levels were taken on 12/30/19 @ 0750

* Total Depth: 158.59

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T05S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175090-19

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/(N))

Sampling Bladder Pump Dedicated (Y/(N))

PURGING INFORMATION

Purge Date: 12/30/19 Start Purge: 0955 (2400 Hr. Clock) End Purge: 1012

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.55

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 623.45 (ft./msl)

Water Level 116.64 (ft.)

Ground Water Elev. 506.81 (ft./msl)

Well Bottom Elevation * 448.35 (ft./msl)

	1st	2nd	Final	
pH	10.32	10.35	10.35	(std.)
SC	2040	2040	2040	(umhos/cm)
Temp.	7.41	7.36	7.36	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 33°F, Cloudy, SW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 116.64 - 2.40 = 114.24 (ft.)

Levels were taken on 12/30/19 @ 0940.

* Total Deth = 175.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T06S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-175096-20

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/31/19 Start Purge: 0910 (2400 Hr. Clock) End Purge: 0930

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.30 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 621.02 (ft./msl)
Water Level 110.47 (ft.)
Ground Water Elev. 510.55 (ft./msl)
Well Bottom Elevation * 447.94 (ft./msl)

	1st	2nd	Final	
pH	5.05	5.01	5.01	(std.)
SC	667	668	668	(umhos/cm)
Temp.	7.86	7.83	7.83	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 27°F, Cloudy, W winds 15-20 mph

Other: *Reference Measurement
Depth To Water from L.S. = 110.47 − 2.30 = 108.17 (ft.)
Levels were taken on 12/31/19 @ 0850
* Total Deth = 173.00

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-183935-1
Client Project/Site: Joliet #9 (Quarry) CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Robin M Kintz

Authorized for release by:
7/7/2020 3:08:12 PM
Robin Kintz, Project Manager II
(708)534-5200
robin.kintz@testamericainc.com

Designee for

Diana Mockler, Project Manager I
(219)252-7570
diana.mockler@testamericainc.com

LINKS

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www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-183935-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-183935-1

Comments
No additional comments.

Receipt
The samples were received on 6/22/2020 3:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 6.6º C, 6.7º C, 7.1º C, 8.5º C, 9.1º C, 9.1º C and 9.5º C.

Metals
Method 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-549752. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-183935-1	T09S	Water	06/22/20 10:08	06/22/20 15:40	
500-183935-2	T06S	Water	06/22/20 11:48	06/22/20 15:40	
500-183935-3	T05S	Water	06/22/20 13:37	06/22/20 15:40	
500-183935-4	T02S	Water	06/23/20 09:24	06/23/20 15:10	
500-183935-5	T08S	Water	06/23/20 11:51	06/23/20 15:10	
500-183935-6	T03S	Water	06/23/20 13:53	06/23/20 15:10	
500-183935-7	G20S	Water	06/24/20 10:20	06/24/20 15:20	
500-183935-8	G33S	Water	06/24/20 13:54	06/24/20 15:20	
500-183935-9	T01S	Water	06/25/20 09:17	06/25/20 15:10	
500-183935-10	G30S	Water	06/25/20 13:03	06/25/20 15:10	
500-183935-11	T04S	Water	06/26/20 09:15	06/26/20 14:30	
500-183935-12	R08S	Water	06/26/20 09:40	06/26/20 14:30	
500-183935-13	G45S	Water	06/26/20 10:51	06/26/20 14:30	
500-183935-14	G48S	Water	06/26/20 12:40	06/26/20 14:30	
500-183935-15	G46S	Water	06/29/20 09:37	06/29/20 14:30	
500-183935-16	G44S	Water	06/29/20 10:51	06/29/20 14:30	
500-183935-17	R32S	Water	06/29/20 13:14	06/29/20 14:30	
500-183935-18	R32S DUP	Water	06/29/20 13:14	06/29/20 14:30	
500-183935-19	G47S	Water	06/30/20 09:30	06/30/20 12:20	
500-183935-20	G31S	Water	06/30/20 11:03	06/30/20 12:20	

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T09S

Date Collected: 06/22/20 10:08
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.052		0.010		mg/L		06/23/20 07:09	06/26/20 09:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0010		mg/L		06/23/20 07:09	06/23/20 14:30	1
Barium	0.080		0.0025		mg/L		06/23/20 07:09	06/23/20 14:30	1
Boron	3.0		0.050		mg/L		06/23/20 07:09	06/23/20 14:30	1
Calcium	100		0.20		mg/L		06/23/20 07:09	06/23/20 14:30	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:30	1
Lead	0.0017		0.00050		mg/L		06/23/20 07:09	06/23/20 14:30	1
Molybdenum	0.52		0.0050		mg/L		06/23/20 07:09	06/23/20 14:30	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	790		30		mg/L			06/24/20 14:27	1
Chloride	82		10		mg/L			06/30/20 20:55	5
Fluoride	0.39		0.10		mg/L			07/03/20 11:33	1
Sulfate	300		100		mg/L			06/25/20 11:56	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.30				ft			06/22/20 10:08	1
Depth to Water (ft from MP)	100.70				ft			06/22/20 10:08	1
Elevation of well (ft from MP)	603.74				ft			06/22/20 10:08	1
Field pH	7.50				SU			06/22/20 10:08	1
Field Temperature	60.3				Degrees F			06/22/20 10:08	1
Ground Water Elevation	503.04				ft			06/22/20 10:08	1
Specific Conductance	1178				umhos/cm			06/22/20 10:08	1
Well bottom elevation	444.80				ft			06/22/20 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T06S

Date Collected: 06/22/20 11:48
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.026		0.010		mg/L		06/23/20 07:09	06/26/20 09:54	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:32	1
Barium	0.035		0.0025		mg/L		06/23/20 07:09	06/23/20 14:32	1
Boron	0.73		0.050		mg/L		06/23/20 07:09	06/23/20 14:32	1
Calcium	88		0.20		mg/L		06/23/20 07:09	06/23/20 14:32	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:32	1
Lead	<0.00050		0.00050		mg/L		06/23/20 07:09	06/23/20 14:32	1
Molybdenum	0.0060		0.0050		mg/L		06/23/20 07:09	06/23/20 14:32	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	460		30		mg/L			06/24/20 14:27	1
Chloride	13		2.0		mg/L			06/30/20 20:56	1
Fluoride	0.45		0.10		mg/L			07/03/20 11:41	1
Sulfate	95		25		mg/L			06/25/20 11:57	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	108.81				ft			06/22/20 11:48	1
Depth to Water (ft from MP)	111.11				ft			06/22/20 11:48	1
Elevation of well (ft from MP)	621.02				ft			06/22/20 11:48	1
Field pH	7.69				SU			06/22/20 11:48	1
Field Temperature	78.8				Degrees F			06/22/20 11:48	1
Ground Water Elevation	509.91				ft			06/22/20 11:48	1
Specific Conductance	779				umhos/cm			06/22/20 11:48	1
Well bottom elevation	447.94				ft			06/22/20 11:48	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T05S

Date Collected: 06/22/20 13:37
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.017		0.010		mg/L		06/23/20 07:09	06/26/20 09:58	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.13		0.0010		mg/L		06/23/20 07:09	06/23/20 14:34	1
Barium	0.010		0.0025		mg/L		06/23/20 07:09	06/23/20 14:34	1
Boron	12		5.0		mg/L		06/23/20 07:09	06/24/20 11:37	100
Calcium	3.5		0.20		mg/L		06/23/20 07:09	06/23/20 14:34	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:34	1
Lead	<0.00050		0.00050		mg/L		06/23/20 07:09	06/23/20 14:34	1
Molybdenum	0.96		0.0050		mg/L		06/23/20 07:09	06/23/20 14:34	1
Selenium	0.0038		0.0025		mg/L		06/23/20 07:09	06/23/20 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		150		mg/L			06/24/20 14:27	1
Chloride	150		10		mg/L			06/30/20 21:00	5
Fluoride	1.8		0.10		mg/L			07/03/20 11:44	1
Sulfate	560		100		mg/L			06/25/20 11:57	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	112.84				ft			06/22/20 13:37	1
Depth to Water (ft from MP)	115.24				ft			06/22/20 13:37	1
Elevation of well (ft from MP)	623.45				ft			06/22/20 13:37	1
Field pH	10.71				SU			06/22/20 13:37	1
Field Temperature	66.6				Degrees F			06/22/20 13:37	1
Ground Water Elevation	508.21				ft			06/22/20 13:37	1
Specific Conductance	2420				umhos/cm			06/22/20 13:37	1
Well bottom elevation	448.35				ft			06/22/20 13:37	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T02S

Date Collected: 06/23/20 09:24
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.034		0.010		mg/L		06/23/20 17:50	06/26/20 10:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014		0.0010		mg/L		06/23/20 17:50	06/25/20 12:11	1
Barium	0.075		0.0025		mg/L		06/23/20 17:50	06/24/20 13:48	1
Boron	4.5		0.50		mg/L		06/23/20 17:50	06/26/20 10:17	10
Calcium	74		0.20		mg/L		06/23/20 17:50	06/24/20 13:48	1
Cobalt	0.0037		0.0010		mg/L		06/23/20 17:50	06/24/20 13:48	1
Lead	0.0012		0.00050		mg/L		06/23/20 17:50	06/24/20 13:48	1
Molybdenum	0.33		0.0050		mg/L		06/23/20 17:50	06/24/20 13:48	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	920		30		mg/L			06/24/20 14:27	1
Chloride	88	F1	10		mg/L			06/30/20 21:00	5
Fluoride	0.59		0.10		mg/L			07/03/20 11:47	1
Sulfate	370		100		mg/L			06/25/20 11:57	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	124.53				ft			06/23/20 09:24	1
Depth to Water (ft from MP)	126.86				ft			06/23/20 09:24	1
Elevation of well (ft from MP)	626.16				ft			06/23/20 09:24	1
Field pH	7.78				SU			06/23/20 09:24	1
Field Temperature	69.1				Degrees F			06/23/20 09:24	1
Ground Water Elevation	499.30				ft			06/23/20 09:24	1
Specific Conductance	1350				umhos/cm			06/23/20 09:24	1
Well bottom elevation	453.40				ft			06/23/20 09:24	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T08S

Date Collected: 06/23/20 11:51
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.033		0.010		mg/L		06/23/20 17:50	06/26/20 10:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016		0.0010		mg/L		06/23/20 17:50	06/25/20 12:12	1
Barium	0.032		0.0025		mg/L		06/23/20 17:50	06/24/20 13:52	1
Boron	6.7		1.0		mg/L		06/23/20 17:50	06/26/20 10:20	20
Calcium	26		0.20		mg/L		06/23/20 17:50	06/24/20 13:52	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 17:50	06/24/20 13:52	1
Lead	<0.00050		0.00050		mg/L		06/23/20 17:50	06/24/20 13:52	1
Molybdenum	0.62		0.0050		mg/L		06/23/20 17:50	06/24/20 13:52	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	880		30		mg/L			06/24/20 14:27	1
Chloride	94		10		mg/L			06/30/20 21:03	5
Fluoride	0.67		0.10		mg/L			07/03/20 11:50	1
Sulfate	390		100		mg/L			06/25/20 11:58	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	120.33				ft			06/23/20 11:51	1
Depth to Water (ft from MP)	122.71				ft			06/23/20 11:51	1
Elevation of well (ft from MP)	627.39				ft			06/23/20 11:51	1
Field pH	9.12				SU			06/23/20 11:51	1
Field Temperature	75.0				Degrees F			06/23/20 11:51	1
Ground Water Elevation	504.68				ft			06/23/20 11:51	1
Specific Conductance	1345				umhos/cm			06/23/20 11:51	1
Well bottom elevation	447.38				ft			06/23/20 11:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T03S

Date Collected: 06/23/20 13:53
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.025		0.010		mg/L		06/23/20 17:50	06/26/20 10:43	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0010		mg/L		06/23/20 17:50	06/25/20 12:28	1
Barium	0.093		0.0025		mg/L		06/23/20 17:50	06/24/20 14:10	1
Boron	2.3		0.50		mg/L		06/23/20 17:50	06/26/20 10:39	10
Calcium	97		0.20		mg/L		06/23/20 17:50	06/24/20 14:10	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 17:50	06/24/20 14:10	1
Lead	<0.00050		0.00050		mg/L		06/23/20 17:50	06/24/20 14:10	1
Molybdenum	0.23		0.0050		mg/L		06/23/20 17:50	06/24/20 14:10	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	770		30		mg/L			06/24/20 14:27	1
Chloride	74		10		mg/L			06/30/20 21:04	5
Fluoride	0.33		0.10		mg/L			07/03/20 11:53	1
Sulfate	240		100		mg/L			06/25/20 11:58	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	128.19				ft			06/23/20 13:53	1
Depth to Water (ft from MP)	131.27				ft			06/23/20 13:53	1
Elevation of well (ft from MP)	629.89				ft			06/23/20 13:53	1
Field pH	7.29				SU			06/23/20 13:53	1
Field Temperature	57.4				Degrees F			06/23/20 13:53	1
Ground Water Elevation	498.62				ft			06/23/20 13:53	1
Specific Conductance	1220				umhos/cm			06/23/20 13:53	1
Well bottom elevation	456.70				ft			06/23/20 13:53	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G20S

Date Collected: 06/24/20 10:20
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-7

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.038**		0.010		mg/L		06/25/20 06:38	06/26/20 10:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:55	1
Barium	**0.045**		0.0025		mg/L		06/25/20 06:38	06/26/20 13:55	1
Boron	**1.3**		0.050		mg/L		06/25/20 06:38	06/26/20 13:55	1
Calcium	**58**		0.20		mg/L		06/25/20 06:38	06/26/20 13:55	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:55	1
Lead	<0.00050		0.00050		mg/L		06/25/20 06:38	06/26/20 13:55	1
Molybdenum	**0.019**		0.0050		mg/L		06/25/20 06:38	06/26/20 13:55	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**360**		30		mg/L			06/26/20 09:06	1
Chloride	**13**		2.0		mg/L			06/30/20 21:05	1
Fluoride	**0.79**		0.10		mg/L			07/03/20 12:09	1
Sulfate	**63**		25		mg/L			06/30/20 12:53	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**36.95**				ft			06/24/20 10:20	1
Depth to Water (ft from MP)	**39.73**				ft			06/24/20 10:20	1
Elevation of well (ft from MP)	**580.33**				ft			06/24/20 10:20	1
Field pH	**7.81**				SU			06/24/20 10:20	1
Field Temperature	**75.7**				Degrees F			06/24/20 10:20	1
Ground Water Elevation	**540.60**				ft			06/24/20 10:20	1
Specific Conductance	**699**				umhos/cm			06/24/20 10:20	1
Well bottom elevation	**442.28**				ft			06/24/20 10:20	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G33S

Date Collected: 06/24/20 13:54
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-8

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.040		0.010		mg/L		06/25/20 06:38	06/26/20 10:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0010		mg/L		06/25/20 06:38	06/26/20 13:59	1
Barium	0.058		0.0025		mg/L		06/25/20 06:38	06/26/20 13:59	1
Boron	0.97		0.050		mg/L		06/25/20 06:38	06/26/20 13:59	1
Calcium	42		0.20		mg/L		06/25/20 06:38	06/26/20 13:59	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:59	1
Lead	0.0013		0.00050		mg/L		06/25/20 06:38	06/26/20 13:59	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/20 06:38	06/26/20 13:59	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		30		mg/L			06/26/20 09:06	1
Chloride	4.2		2.0		mg/L			06/30/20 21:05	1
Fluoride	0.97		0.10		mg/L			07/03/20 12:12	1
Sulfate	51		25		mg/L			06/30/20 12:54	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	26.48				ft			06/24/20 13:54	1
Depth to Water (ft from MP)	28.21				ft			06/24/20 13:54	1
Elevation of well (ft from MP)	535.66				ft			06/24/20 13:54	1
Field pH	7.59				SU			06/24/20 13:54	1
Field Temperature	65.7				Degrees F			06/24/20 13:54	1
Ground Water Elevation	507.45				ft			06/24/20 13:54	1
Specific Conductance	631				umhos/cm			06/24/20 13:54	1
Well bottom elevation	452.72				ft			06/24/20 13:54	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T01S

Date Collected: 06/25/20 09:17
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/20 17:52	06/26/20 11:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0086**		0.0010		mg/L		06/25/20 17:52	06/26/20 15:36	1
Barium	**0.047**		0.0025		mg/L		06/25/20 17:52	06/26/20 15:36	1
Boron	**4.0**		0.050		mg/L		06/25/20 17:52	06/26/20 15:36	1
Calcium	**52**		0.20		mg/L		06/25/20 17:52	06/26/20 15:36	1
Cobalt	**0.0010**		0.0010		mg/L		06/25/20 17:52	06/26/20 15:36	1
Lead	**0.00057**		0.00050		mg/L		06/25/20 17:52	06/26/20 15:36	1
Molybdenum	**0.32**		0.0050		mg/L		06/25/20 17:52	06/26/20 15:36	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**900**		30		mg/L			06/30/20 10:00	1
Chloride	**100**		10		mg/L			06/30/20 21:06	5
Fluoride	**1.1**		0.10		mg/L			07/03/20 12:16	1
Sulfate	**390**		100		mg/L			06/30/20 12:54	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**109.33**				ft			06/25/20 09:17	1
Depth to Water (ft from MP)	**111.81**				ft			06/25/20 09:17	1
Elevation of well (ft from MP)	**621.78**				ft			06/25/20 09:17	1
Field pH	**7.75**				SU			06/25/20 09:17	1
Field Temperature	**72.0**				Degrees F			06/25/20 09:17	1
Ground Water Elevation	**509.97**				ft			06/25/20 09:17	1
Specific Conductance	**1433**				umhos/cm			06/25/20 09:17	1
Well bottom elevation	**451.46**				ft			06/25/20 09:17	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G30S

Date Collected: 06/25/20 13:03
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.019		0.010		mg/L		06/25/20 17:52	06/26/20 11:15	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0053		0.0010		mg/L		06/25/20 17:52	06/26/20 15:39	1
Barium	0.042		0.0025		mg/L		06/25/20 17:52	06/26/20 15:39	1
Boron	4.9		0.050		mg/L		06/25/20 17:52	06/26/20 15:39	1
Calcium	57		0.20		mg/L		06/25/20 17:52	06/26/20 15:39	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 17:52	06/26/20 15:39	1
Lead	<0.00050		0.00050		mg/L		06/25/20 17:52	06/26/20 15:39	1
Molybdenum	0.020		0.0050		mg/L		06/25/20 17:52	06/26/20 15:39	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 15:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		30		mg/L			06/30/20 10:00	1
Chloride	220		10		mg/L			06/30/20 21:08	5
Fluoride	1.1		0.10		mg/L			07/03/20 12:19	1
Sulfate	410		100		mg/L			06/30/20 12:54	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-1.03				ft			06/25/20 13:03	1
Depth to Water (ft from MP)	1.28				ft			06/25/20 13:03	1
Elevation of well (ft from MP)	524.70				ft			06/25/20 13:03	1
Field pH	8.33				SU			06/25/20 13:03	1
Field Temperature	60.8				Degrees F			06/25/20 13:03	1
Ground Water Elevation	523.42				ft			06/25/20 13:03	1
Specific Conductance	1830				umhos/cm			06/25/20 13:03	1
Well bottom elevation	462.58				ft			06/25/20 13:03	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T04S

Date Collected: 06/26/20 09:15
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-11

Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	0				ft			06/26/20 09:15	1
Depth to Water (ft from MP)	0				ft			06/26/20 09:15	1
Elevation of well (ft from MP)	631.35				ft			06/26/20 09:15	1
Field pH	0				SU			06/26/20 09:15	1
Field Temperature	0				Degrees F			06/26/20 09:15	1
Ground Water Elevation	0				ft			06/26/20 09:15	1
Specific Conductance	0				umhos/cm			06/26/20 09:15	1
Well bottom elevation	458.07				ft			06/26/20 09:15	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R08S

Date Collected: 06/26/20 09:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-12

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.14		0.010		mg/L		07/01/20 06:35	07/01/20 23:08	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011		0.0010		mg/L		07/01/20 06:35	07/01/20 13:26	1
Barium	0.043		0.0025		mg/L		07/01/20 06:35	07/01/20 13:26	1
Boron	7.9		1.0		mg/L		07/01/20 06:35	07/02/20 12:25	20
Calcium	140		0.20		mg/L		07/01/20 06:35	07/01/20 13:26	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:26	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:26	1
Molybdenum	0.36		0.0050		mg/L		07/01/20 06:35	07/01/20 13:26	1
Selenium	0.017		0.0025		mg/L		07/01/20 06:35	07/01/20 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	750		30		mg/L			06/30/20 10:00	1
Chloride	83		10		mg/L			06/30/20 21:08	5
Fluoride	0.15		0.10		mg/L			07/03/20 12:22	1
Sulfate	370		100		mg/L			06/30/20 12:55	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	63.14				ft			06/26/20 09:40	1
Depth to Water (ft from MP)	65.69				ft			06/26/20 09:40	1
Elevation of well (ft from MP)	578.62				ft			06/26/20 09:40	1
Field pH	8.32				SU			06/26/20 09:40	1
Field Temperature	57.7				Degrees F			06/26/20 09:40	1
Ground Water Elevation	512.93				ft			06/26/20 09:40	1
Specific Conductance	1107				umhos/cm			06/26/20 09:40	1
Well bottom elevation	453.08				ft			06/26/20 09:40	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G45S

Date Collected: 06/26/20 10:51
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-13

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.039		0.010		mg/L		07/01/20 06:35	07/01/20 23:12	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.0010		mg/L		07/01/20 06:35	07/01/20 13:30	1
Barium	0.049		0.0025		mg/L		07/01/20 06:35	07/01/20 13:30	1
Boron	0.62		0.050		mg/L		07/01/20 06:35	07/02/20 12:29	1
Calcium	130		0.20		mg/L		07/01/20 06:35	07/01/20 13:30	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:30	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:30	1
Molybdenum	0.0088		0.0050		mg/L		07/01/20 06:35	07/01/20 13:30	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	970		30		mg/L			06/30/20 10:00	1
Chloride	220		10		mg/L			06/30/20 23:41	5
Fluoride	0.33		0.10		mg/L			07/03/20 12:25	1
Sulfate	240		25		mg/L			06/30/20 12:55	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	58.15				ft			06/26/20 10:51	1
Depth to Water (ft from MP)	61.12				ft			06/26/20 10:51	1
Elevation of well (ft from MP)	603.31				ft			06/26/20 10:51	1
Field pH	7.21				SU			06/26/20 10:51	1
Field Temperature	58.8				Degrees F			06/26/20 10:51	1
Ground Water Elevation	542.19				ft			06/26/20 10:51	1
Specific Conductance	1590				umhos/cm			06/26/20 10:51	1
Well bottom elevation	471.05				ft			06/26/20 10:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G48S

Date Collected: 06/26/20 12:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-14

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		07/01/20 06:35	07/01/20 23:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		07/01/20 06:35	07/01/20 13:33	1
Barium	0.017		0.0025		mg/L		07/01/20 06:35	07/01/20 13:33	1
Boron	7.1		1.0		mg/L		07/01/20 06:35	07/02/20 12:33	20
Calcium	16		0.20		mg/L		07/01/20 06:35	07/01/20 13:33	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:33	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:33	1
Molybdenum	0.54		0.0050		mg/L		07/01/20 06:35	07/01/20 13:33	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		30		mg/L			06/30/20 10:00	1
Chloride	110		10		mg/L			06/30/20 23:42	5
Fluoride	1.0		0.10		mg/L			07/03/20 12:30	1
Sulfate	400		100		mg/L			06/30/20 13:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	94.39				ft			06/26/20 12:40	1
Depth to Water (ft from MP)	96.84				ft			06/26/20 12:40	1
Elevation of well (ft from MP)	620.78				ft			06/26/20 12:40	1
Field pH	9.20				SU			06/26/20 12:40	1
Field Temperature	59.5				Degrees F			06/26/20 12:40	1
Ground Water Elevation	523.94				ft			06/26/20 12:40	1
Specific Conductance	1560				umhos/cm			06/26/20 12:40	1
Well bottom elevation	468.32				ft			06/26/20 12:40	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G46S

Date Collected: 06/29/20 09:37
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-15

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.23		0.010		mg/L		07/01/20 06:35	07/01/20 23:20	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.075		0.0010		mg/L		07/01/20 06:35	07/01/20 13:37	1
Barium	0.050		0.0025		mg/L		07/01/20 06:35	07/01/20 13:37	1
Boron	13		5.0		mg/L		07/01/20 06:35	07/02/20 12:37	100
Calcium	96		0.20		mg/L		07/01/20 06:35	07/01/20 13:37	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:37	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:37	1
Molybdenum	1.7		0.0050		mg/L		07/01/20 06:35	07/01/20 13:37	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	980		30		mg/L			07/01/20 14:35	1
Chloride	74		50		mg/L			07/07/20 00:32	25
Fluoride	0.34		0.10		mg/L			07/03/20 12:33	1
Sulfate	510		100		mg/L			06/30/20 13:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	97.41				ft			06/29/20 09:37	1
Depth to Water (ft from MP)	100.11				ft			06/29/20 09:37	1
Elevation of well (ft from MP)	601.32				ft			06/29/20 09:37	1
Field pH	8.06				SU			06/29/20 09:37	1
Field Temperature	61.5				Degrees F			06/29/20 09:37	1
Ground Water Elevation	501.21				ft			06/29/20 09:37	1
Specific Conductance	1494				umhos/cm			06/29/20 09:37	1
Well bottom elevation	453.62				ft			06/29/20 09:37	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G44S

Date Collected: 06/29/20 10:51
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-16

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.024**		0.010		mg/L		07/01/20 06:35	07/01/20 23:24	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:41	1
Barium	**0.060**		0.0025		mg/L		07/01/20 06:35	07/01/20 13:41	1
Boron	**1.4**		0.25		mg/L		07/01/20 06:35	07/02/20 12:40	5
Calcium	**130**		0.20		mg/L		07/01/20 06:35	07/01/20 13:41	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:41	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:41	1
Molybdenum	**0.15**		0.0050		mg/L		07/01/20 06:35	07/01/20 13:41	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**670**		30		mg/L			07/01/20 14:35	1
Chloride	**52**		2.0		mg/L			06/30/20 22:20	1
Fluoride	**0.21**		0.10		mg/L			07/03/20 12:36	1
Sulfate	**160**		25		mg/L			06/30/20 13:27	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**75.60**				ft			06/29/20 10:51	1
Depth to Water (ft from MP)	**77.78**				ft			06/29/20 10:51	1
Elevation of well (ft from MP)	**586.69**				ft			06/29/20 10:51	1
Field pH	**7.30**				SU			06/29/20 10:51	1
Field Temperature	**70.9**				Degrees F			06/29/20 10:51	1
Ground Water Elevation	**508.91**				ft			06/29/20 10:51	1
Specific Conductance	**1055**				umhos/cm			06/29/20 10:51	1
Well bottom elevation	**455.11**				ft			06/29/20 10:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R32S

Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-17

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		07/01/20 06:35	07/01/20 23:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0010		mg/L		07/01/20 06:35	07/01/20 13:44	1
Barium	0.038		0.0025		mg/L		07/01/20 06:35	07/01/20 13:44	1
Boron	6.0		1.0		mg/L		07/01/20 06:35	07/02/20 12:44	20
Calcium	130		0.20		mg/L		07/01/20 06:35	07/01/20 13:44	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:44	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:44	1
Molybdenum	0.64		0.0050		mg/L		07/01/20 06:35	07/01/20 13:44	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	790		30		mg/L			07/01/20 14:35	1
Chloride	71		10		mg/L			06/30/20 23:45	5
Fluoride	0.28		0.10		mg/L			07/03/20 12:39	1
Sulfate	400		100		mg/L			06/30/20 13:27	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	15.82				ft			06/29/20 13:14	1
Depth to Water (ft from MP)	17.85				ft			06/29/20 13:14	1
Elevation of well (ft from MP)	536.99				ft			06/29/20 13:14	1
Field pH	7.47				SU			06/29/20 13:14	1
Field Temperature	54.5				Degrees F			06/29/20 13:14	1
Ground Water Elevation	519.14				ft			06/29/20 13:14	1
Specific Conductance	1070				umhos/cm			06/29/20 13:14	1
Well bottom elevation	457.84				ft			06/29/20 13:14	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R32S DUP

Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-18

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.10		0.010		mg/L		07/01/20 06:35	07/01/20 23:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0022		0.0010		mg/L		07/01/20 06:35	07/01/20 13:48	1
Barium	0.038		0.0025		mg/L		07/01/20 06:35	07/01/20 13:48	1
Boron	5.8		1.0		mg/L		07/01/20 06:35	07/02/20 12:48	20
Calcium	130		0.20		mg/L		07/01/20 06:35	07/01/20 13:48	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:48	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:48	1
Molybdenum	0.63		0.0050		mg/L		07/01/20 06:35	07/01/20 13:48	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	850		30		mg/L			07/01/20 14:35	1
Chloride	79		10		mg/L			06/30/20 23:46	5
Fluoride	0.28		0.10		mg/L			07/03/20 12:52	1
Sulfate	430		100		mg/L			06/30/20 13:27	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	15.82				ft			06/29/20 13:14	1
Depth to Water (ft from MP)	17.85				ft			06/29/20 13:14	1
Elevation of well (ft from MP)	536.99				ft			06/29/20 13:14	1
Field pH	7.47				SU			06/29/20 13:14	1
Field Temperature	54.5				Degrees F			06/29/20 13:14	1
Ground Water Elevation	519.14				ft			06/29/20 13:14	1
Specific Conductance	1070				umhos/cm			06/29/20 13:14	1
Well bottom elevation	457.84				ft			06/29/20 13:14	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G47S

Date Collected: 06/30/20 09:30
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-19

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.052		0.010		mg/L		06/30/20 17:40	07/01/20 12:01	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.037		0.0010		mg/L		06/30/20 17:40	07/01/20 12:11	1
Barium	0.015		0.0025		mg/L		06/30/20 17:40	07/01/20 12:11	1
Boron	5.2		1.0		mg/L		06/30/20 17:40	07/02/20 13:06	20
Calcium	16		0.20		mg/L		06/30/20 17:40	07/01/20 12:11	1
Cobalt	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:11	1
Lead	<0.00050		0.00050		mg/L		06/30/20 17:40	07/01/20 12:11	1
Molybdenum	0.46		0.0050		mg/L		06/30/20 17:40	07/01/20 12:11	1
Selenium	0.0040		0.0025		mg/L		06/30/20 17:40	07/01/20 12:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		30		mg/L			07/01/20 14:35	1
Chloride	120		10		mg/L			06/30/20 23:46	5
Fluoride	0.59		0.10		mg/L			07/03/20 12:57	1
Sulfate	440	F1	100		mg/L			06/30/20 15:24	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	87.39				ft			06/30/20 09:30	1
Depth to Water (ft from MP)	89.89				ft			06/30/20 09:30	1
Elevation of well (ft from MP)	612.10				ft			06/30/20 09:30	1
Field pH	9.04				SU			06/30/20 09:30	1
Field Temperature	63.5				Degrees F			06/30/20 09:30	1
Ground Water Elevation	522.21				ft			06/30/20 09:30	1
Specific Conductance	1730				umhos/cm			06/30/20 09:30	1
Well bottom elevation	459.84				ft			06/30/20 09:30	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G31S

Date Collected: 06/30/20 11:03
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-20

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.10		0.010		mg/L		06/30/20 17:40	07/01/20 12:21	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0036		0.0010		mg/L		06/30/20 17:40	07/01/20 12:30	1
Barium	0.047		0.0025		mg/L		06/30/20 17:40	07/01/20 12:30	1
Boron	4.5		1.0		mg/L		06/30/20 17:40	07/02/20 13:25	20
Calcium	140		0.20		mg/L		06/30/20 17:40	07/01/20 12:30	1
Cobalt	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:30	1
Lead	<0.00050		0.00050		mg/L		06/30/20 17:40	07/01/20 12:30	1
Molybdenum	0.65		0.0050		mg/L		06/30/20 17:40	07/01/20 12:30	1
Selenium	<0.0025		0.0025		mg/L		06/30/20 17:40	07/01/20 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		30		mg/L			07/01/20 14:35	1
Chloride	230		10		mg/L			06/30/20 23:47	5
Fluoride	0.26		0.10		mg/L			07/03/20 13:00	1
Sulfate	390		100		mg/L			06/30/20 15:25	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	23.62				ft			06/30/20 11:03	1
Depth to Water (ft from MP)	26.20				ft			06/30/20 11:03	1
Elevation of well (ft from MP)	535.78				ft			06/30/20 11:03	1
Field pH	7.26				SU			06/30/20 11:03	1
Field Temperature	62.6				Degrees F			06/30/20 11:03	1
Ground Water Elevation	509.58				ft			06/30/20 11:03	1
Specific Conductance	2430				umhos/cm			06/30/20 11:03	1
Well bottom elevation	453.36				ft			06/30/20 11:03	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Metals

Prep Batch: 548849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total Recoverable	Water	3005A	
500-183935-2	T06S	Total Recoverable	Water	3005A	
500-183935-3	T05S	Total Recoverable	Water	3005A	
MB 500-548849/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-548849/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 548978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-4	T02S	Total Recoverable	Water	3005A	
500-183935-5	T08S	Total Recoverable	Water	3005A	
500-183935-6	T03S	Total Recoverable	Water	3005A	
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-183935-5 MS	T08S	Total Recoverable	Water	3005A	
500-183935-5 MSD	T08S	Total Recoverable	Water	3005A	
500-183935-5 DU	T08S	Total Recoverable	Water	3005A	

Analysis Batch: 549124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total Recoverable	Water	6020A	548849
500-183935-2	T06S	Total Recoverable	Water	6020A	548849
500-183935-3	T05S	Total Recoverable	Water	6020A	548849
MB 500-548849/1-A	Method Blank	Total Recoverable	Water	6020A	548849
LCS 500-548849/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548849

Prep Batch: 549276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total Recoverable	Water	3005A	
500-183935-8	G33S	Total Recoverable	Water	3005A	
MB 500-549276/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-549276/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 549354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-3	T05S	Total Recoverable	Water	6020A	548849
500-183935-4	T02S	Total Recoverable	Water	6020A	548978
500-183935-5	T08S	Total Recoverable	Water	6020A	548978
500-183935-6	T03S	Total Recoverable	Water	6020A	548978
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6020A	548978
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548978
500-183935-5 MS	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6020A	548978

Prep Batch: 549425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-9	T01S	Total Recoverable	Water	3005A	
500-183935-10	G30S	Total Recoverable	Water	3005A	
MB 500-549425/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-549425/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 549550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-4	T02S	Total Recoverable	Water	6020A	548978
500-183935-5	T08S	Total Recoverable	Water	6020A	548978
500-183935-6	T03S	Total Recoverable	Water	6020A	548978
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6020A	548978
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548978
500-183935-5 MS	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6020A	548978

Analysis Batch: 549609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-4	T02S	Total Recoverable	Water	6020A	548978
500-183935-5	T08S	Total Recoverable	Water	6020A	548978
500-183935-6	T03S	Total Recoverable	Water	6020A	548978
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6020A	548978
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548978
500-183935-5 MS	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6020A	548978

Analysis Batch: 549617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total Recoverable	Water	6010C	548849
500-183935-2	T06S	Total Recoverable	Water	6010C	548849
500-183935-3	T05S	Total Recoverable	Water	6010C	548849
500-183935-4	T02S	Total Recoverable	Water	6010C	548978
500-183935-5	T08S	Total Recoverable	Water	6010C	548978
500-183935-6	T03S	Total Recoverable	Water	6010C	548978
500-183935-7	G20S	Total Recoverable	Water	6010C	549276
500-183935-8	G33S	Total Recoverable	Water	6010C	549276
500-183935-9	T01S	Total Recoverable	Water	6010C	549425
500-183935-10	G30S	Total Recoverable	Water	6010C	549425
MB 500-548849/1-A	Method Blank	Total Recoverable	Water	6010C	548849
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6010C	548978
MB 500-549276/1-A	Method Blank	Total Recoverable	Water	6010C	549276
MB 500-549425/1-A	Method Blank	Total Recoverable	Water	6010C	549425
LCS 500-548849/2-A	Lab Control Sample	Total Recoverable	Water	6010C	548849
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6010C	548978
LCS 500-549276/2-A	Lab Control Sample	Total Recoverable	Water	6010C	549276
LCS 500-549425/2-A	Lab Control Sample	Total Recoverable	Water	6010C	549425
500-183935-5 MS	T08S	Total Recoverable	Water	6010C	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6010C	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6010C	548978

Analysis Batch: 549752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total Recoverable	Water	6020A	549276
500-183935-8	G33S	Total Recoverable	Water	6020A	549276
500-183935-9	T01S	Total Recoverable	Water	6020A	549425
500-183935-10	G30S	Total Recoverable	Water	6020A	549425
MB 500-549276/1-A	Method Blank	Total Recoverable	Water	6020A	549276

Metals (Continued)

Analysis Batch: 549752 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-549425/1-A	Method Blank	Total Recoverable	Water	6020A	549425
LCS 500-549276/2-A	Lab Control Sample	Total Recoverable	Water	6020A	549276
LCS 500-549425/2-A	Lab Control Sample	Total Recoverable	Water	6020A	549425

Prep Batch: 550154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-19	G47S	Total Recoverable	Water	3005A	
500-183935-20	G31S	Total Recoverable	Water	3005A	
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-183935-19 MS	G47S	Total Recoverable	Water	3005A	
500-183935-19 MSD	G47S	Total Recoverable	Water	3005A	
500-183935-19 DU	G47S	Total Recoverable	Water	3005A	

Prep Batch: 550246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	3005A	
500-183935-13	G45S	Total Recoverable	Water	3005A	
500-183935-14	G48S	Total Recoverable	Water	3005A	
500-183935-15	G46S	Total Recoverable	Water	3005A	
500-183935-16	G44S	Total Recoverable	Water	3005A	
500-183935-17	R32S	Total Recoverable	Water	3005A	
500-183935-18	R32S DUP	Total Recoverable	Water	3005A	
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 550354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-19	G47S	Total Recoverable	Water	6010C	550154
500-183935-20	G31S	Total Recoverable	Water	6010C	550154
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	6010C	550154
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	6010C	550154
500-183935-19 MS	G47S	Total Recoverable	Water	6010C	550154
500-183935-19 MSD	G47S	Total Recoverable	Water	6010C	550154
500-183935-19 DU	G47S	Total Recoverable	Water	6010C	550154

Analysis Batch: 550449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	6010C	550246
500-183935-13	G45S	Total Recoverable	Water	6010C	550246
500-183935-14	G48S	Total Recoverable	Water	6010C	550246
500-183935-15	G46S	Total Recoverable	Water	6010C	550246
500-183935-16	G44S	Total Recoverable	Water	6010C	550246
500-183935-17	R32S	Total Recoverable	Water	6010C	550246
500-183935-18	R32S DUP	Total Recoverable	Water	6010C	550246
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	6010C	550246
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	6010C	550246
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	550246

Metals

Analysis Batch: 550542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	6020A	550246
500-183935-13	G45S	Total Recoverable	Water	6020A	550246
500-183935-14	G48S	Total Recoverable	Water	6020A	550246
500-183935-15	G46S	Total Recoverable	Water	6020A	550246
500-183935-16	G44S	Total Recoverable	Water	6020A	550246
500-183935-17	R32S	Total Recoverable	Water	6020A	550246
500-183935-18	R32S DUP	Total Recoverable	Water	6020A	550246
500-183935-19	G47S	Total Recoverable	Water	6020A	550154
500-183935-20	G31S	Total Recoverable	Water	6020A	550154
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	6020A	550154
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	6020A	550246
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550154
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550246
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	550246
500-183935-19 MS	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 MSD	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 DU	G47S	Total Recoverable	Water	6020A	550154

Analysis Batch: 550587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	6020A	550246
500-183935-13	G45S	Total Recoverable	Water	6020A	550246
500-183935-14	G48S	Total Recoverable	Water	6020A	550246
500-183935-15	G46S	Total Recoverable	Water	6020A	550246
500-183935-16	G44S	Total Recoverable	Water	6020A	550246
500-183935-17	R32S	Total Recoverable	Water	6020A	550246
500-183935-18	R32S DUP	Total Recoverable	Water	6020A	550246
500-183935-19	G47S	Total Recoverable	Water	6020A	550154
500-183935-20	G31S	Total Recoverable	Water	6020A	550154
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	6020A	550154
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	6020A	550246
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550154
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550246
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	550246
500-183935-19 MS	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 MSD	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 DU	G47S	Total Recoverable	Water	6020A	550154

General Chemistry

Analysis Batch: 283171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 2540C	
500-183935-2	T06S	Total/NA	Water	SM 2540C	
500-183935-3	T05S	Total/NA	Water	SM 2540C	
500-183935-4	T02S	Total/NA	Water	SM 2540C	
500-183935-5	T08S	Total/NA	Water	SM 2540C	
500-183935-6	T03S	Total/NA	Water	SM 2540C	
MB 310-283171/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283171/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 283379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total/NA	Water	SM 2540C	
500-183935-8	G33S	Total/NA	Water	SM 2540C	
MB 310-283379/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283379/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 283716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-9	T01S	Total/NA	Water	SM 2540C	
500-183935-10	G30S	Total/NA	Water	SM 2540C	
500-183935-12	R08S	Total/NA	Water	SM 2540C	
500-183935-13	G45S	Total/NA	Water	SM 2540C	
500-183935-14	G48S	Total/NA	Water	SM 2540C	
MB 310-283716/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283716/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 283903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-15	G46S	Total/NA	Water	SM 2540C	
500-183935-16	G44S	Total/NA	Water	SM 2540C	
500-183935-17	R32S	Total/NA	Water	SM 2540C	
500-183935-18	R32S DUP	Total/NA	Water	SM 2540C	
500-183935-19	G47S	Total/NA	Water	SM 2540C	
500-183935-20	G31S	Total/NA	Water	SM 2540C	
MB 310-283903/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283903/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 549372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 4500 SO4 E	
500-183935-2	T06S	Total/NA	Water	SM 4500 SO4 E	
500-183935-3	T05S	Total/NA	Water	SM 4500 SO4 E	
500-183935-4	T02S	Total/NA	Water	SM 4500 SO4 E	
500-183935-5	T08S	Total/NA	Water	SM 4500 SO4 E	
500-183935-6	T03S	Total/NA	Water	SM 4500 SO4 E	
MB 500-549372/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-549372/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 550123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total/NA	Water	SM 4500 SO4 E	
500-183935-8	G33S	Total/NA	Water	SM 4500 SO4 E	
500-183935-9	T01S	Total/NA	Water	SM 4500 SO4 E	
500-183935-10	G30S	Total/NA	Water	SM 4500 SO4 E	
500-183935-12	R08S	Total/NA	Water	SM 4500 SO4 E	
500-183935-13	G45S	Total/NA	Water	SM 4500 SO4 E	
500-183935-14	G48S	Total/NA	Water	SM 4500 SO4 E	
500-183935-15	G46S	Total/NA	Water	SM 4500 SO4 E	
500-183935-16	G44S	Total/NA	Water	SM 4500 SO4 E	
500-183935-17	R32S	Total/NA	Water	SM 4500 SO4 E	
500-183935-18	R32S DUP	Total/NA	Water	SM 4500 SO4 E	
MB 500-550123/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 550123 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-550123/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-183935-7 MS	G20S	Total/NA	Water	SM 4500 SO4 E	
500-183935-7 MSD	G20S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 550142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-19	G47S	Total/NA	Water	SM 4500 SO4 E	
500-183935-20	G31S	Total/NA	Water	SM 4500 SO4 E	
MB 500-550142/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-550142/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-183935-19 MS	G47S	Total/NA	Water	SM 4500 SO4 E	
500-183935-19 MSD	G47S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 550210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 4500 Cl- E	
500-183935-2	T06S	Total/NA	Water	SM 4500 Cl- E	
500-183935-3	T05S	Total/NA	Water	SM 4500 Cl- E	
500-183935-4	T02S	Total/NA	Water	SM 4500 Cl- E	
500-183935-5	T08S	Total/NA	Water	SM 4500 Cl- E	
500-183935-6	T03S	Total/NA	Water	SM 4500 Cl- E	
500-183935-7	G20S	Total/NA	Water	SM 4500 Cl- E	
500-183935-8	G33S	Total/NA	Water	SM 4500 Cl- E	
500-183935-9	T01S	Total/NA	Water	SM 4500 Cl- E	
500-183935-10	G30S	Total/NA	Water	SM 4500 Cl- E	
500-183935-12	R08S	Total/NA	Water	SM 4500 Cl- E	
MB 500-550210/50	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-550210/85	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-183935-4 MS	T02S	Total/NA	Water	SM 4500 Cl- E	
500-183935-4 MSD	T02S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 550220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-13	G45S	Total/NA	Water	SM 4500 Cl- E	
500-183935-14	G48S	Total/NA	Water	SM 4500 Cl- E	
500-183935-16	G44S	Total/NA	Water	SM 4500 Cl- E	
500-183935-17	R32S	Total/NA	Water	SM 4500 Cl- E	
500-183935-18	R32S DUP	Total/NA	Water	SM 4500 Cl- E	
500-183935-19	G47S	Total/NA	Water	SM 4500 Cl- E	
500-183935-20	G31S	Total/NA	Water	SM 4500 Cl- E	
MB 500-550220/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-550220/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-183935-13 MS	G45S	Total/NA	Water	SM 4500 Cl- E	
500-183935-13 MSD	G45S	Total/NA	Water	SM 4500 Cl- E	
500-183935-14 MS	G48S	Total/NA	Water	SM 4500 Cl- E	
500-183935-14 MSD	G48S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 550744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 4500 F C	
500-183935-2	T06S	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 550744 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-3	T05S	Total/NA	Water	SM 4500 F C	
500-183935-4	T02S	Total/NA	Water	SM 4500 F C	
500-183935-5	T08S	Total/NA	Water	SM 4500 F C	
500-183935-6	T03S	Total/NA	Water	SM 4500 F C	
500-183935-7	G20S	Total/NA	Water	SM 4500 F C	
500-183935-8	G33S	Total/NA	Water	SM 4500 F C	
500-183935-9	T01S	Total/NA	Water	SM 4500 F C	
500-183935-10	G30S	Total/NA	Water	SM 4500 F C	
500-183935-12	R08S	Total/NA	Water	SM 4500 F C	
500-183935-13	G45S	Total/NA	Water	SM 4500 F C	
500-183935-14	G48S	Total/NA	Water	SM 4500 F C	
500-183935-15	G46S	Total/NA	Water	SM 4500 F C	
500-183935-16	G44S	Total/NA	Water	SM 4500 F C	
500-183935-17	R32S	Total/NA	Water	SM 4500 F C	
500-183935-18	R32S DUP	Total/NA	Water	SM 4500 F C	
500-183935-19	G47S	Total/NA	Water	SM 4500 F C	
500-183935-20	G31S	Total/NA	Water	SM 4500 F C	
MB 500-550744/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-550744/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-183935-1 MS	T09S	Total/NA	Water	SM 4500 F C	
500-183935-1 MSD	T09S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 550893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-15	G46S	Total/NA	Water	SM 4500 Cl- E	
MB 500-550893/145	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-550893/146	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 550377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	Field Sampling	
500-183935-2	T06S	Total/NA	Water	Field Sampling	
500-183935-3	T05S	Total/NA	Water	Field Sampling	
500-183935-4	T02S	Total/NA	Water	Field Sampling	
500-183935-5	T08S	Total/NA	Water	Field Sampling	
500-183935-6	T03S	Total/NA	Water	Field Sampling	
500-183935-7	G20S	Total/NA	Water	Field Sampling	
500-183935-8	G33S	Total/NA	Water	Field Sampling	
500-183935-9	T01S	Total/NA	Water	Field Sampling	
500-183935-10	G30S	Total/NA	Water	Field Sampling	
500-183935-11	T04S	Total/NA	Water	Field Sampling	
500-183935-12	R08S	Total/NA	Water	Field Sampling	
500-183935-13	G45S	Total/NA	Water	Field Sampling	
500-183935-14	G48S	Total/NA	Water	Field Sampling	
500-183935-15	G46S	Total/NA	Water	Field Sampling	
500-183935-16	G44S	Total/NA	Water	Field Sampling	
500-183935-17	R32S	Total/NA	Water	Field Sampling	
500-183935-18	R32S DUP	Total/NA	Water	Field Sampling	
500-183935-19	G47S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 550377 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-20	G31S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-548849/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/23/20 07:09	06/26/20 09:34	1

Lab Sample ID: LCS 500-548849/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/23/20 17:50	06/26/20 10:02	1

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549617

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.033		0.100	0.136		mg/L		104	75 - 125

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549617

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.033		0.100	0.139		mg/L		106	75 - 125	2	20

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549617

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.033		0.0315		mg/L		4	20

Lab Sample ID: MB 500-549276/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/20 06:38	06/26/20 10:47	1

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 500-549276/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: MB 500-549425/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/20 17:52	06/26/20 11:03	1

Lab Sample ID: LCS 500-549425/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.495		mg/L		99	80 - 120

Lab Sample ID: MB 500-550154/1-A
Matrix: Water
Analysis Batch: 550354

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/30/20 17:40	07/01/20 11:45	1

Lab Sample ID: LCS 500-550154/2-A
Matrix: Water
Analysis Batch: 550354

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.510		mg/L		102	80 - 120

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550354

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.052		0.500	0.571		mg/L		104	75 - 125

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550354

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.052		0.500	0.570		mg/L		104	75 - 125	0	20

Lab Sample ID: 500-183935-19 DU
Matrix: Water
Analysis Batch: 550354

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.052		0.0539		mg/L		3	20

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-550246/1-A
Matrix: Water
Analysis Batch: 550449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		07/01/20 06:35	07/01/20 22:48	1

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.517		mg/L		103	80 - 120

Lab Sample ID: LCSD 500-550246/3-A
Matrix: Water
Analysis Batch: 550449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.500	0.527		mg/L		105	80 - 120	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-548849/1-A
Matrix: Water
Analysis Batch: 549124

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:24	1
Barium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:24	1
Boron	<0.050		0.050		mg/L		06/23/20 07:09	06/23/20 14:24	1
Calcium	<0.20		0.20		mg/L		06/23/20 07:09	06/23/20 14:24	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:24	1
Lead	<0.00050		0.00050		mg/L		06/23/20 07:09	06/23/20 14:24	1
Molybdenum	<0.0050		0.0050		mg/L		06/23/20 07:09	06/23/20 14:24	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:24	1

Lab Sample ID: LCS 500-548849/2-A
Matrix: Water
Analysis Batch: 549124

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	0.500	0.518		mg/L		104	80 - 120
Boron	1.00	1.02		mg/L		102	80 - 120
Calcium	10.0	11.1		mg/L		111	80 - 120
Cobalt	0.500	0.516		mg/L		103	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Molybdenum	1.00	0.948		mg/L		95	80 - 120
Selenium	0.100	0.107		mg/L		107	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549354

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:40	1
Calcium	<0.20		0.20		mg/L		06/23/20 17:50	06/24/20 13:40	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 17:50	06/24/20 13:40	1
Lead	<0.00050		0.00050		mg/L		06/23/20 17:50	06/24/20 13:40	1
Molybdenum	<0.0050		0.0050		mg/L		06/23/20 17:50	06/24/20 13:40	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:40	1

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549550

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/23/20 17:50	06/25/20 12:07	1

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549609

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/23/20 17:50	06/26/20 10:09	1

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549354

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.500	0.533		mg/L		107	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Cobalt	0.500	0.514		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Selenium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549550

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0987		mg/L		99	80 - 120

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549609

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549354

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.032		0.500	0.560		mg/L		106	75 - 125
Calcium	26		10.0	35.5		mg/L		92	75 - 125
Cobalt	<0.0010		0.500	0.495		mg/L		99	75 - 125
Lead	<0.00050		0.100	0.105		mg/L		105	75 - 125
Molybdenum	0.62		1.00	1.65		mg/L		102	75 - 125
Selenium	<0.0025		0.100	0.108		mg/L		107	75 - 125

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549550

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.016		0.100	0.114		mg/L		98	75 - 125

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549609

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	6.7		1.00	7.73	4	mg/L		100	75 - 125

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549354

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.032		0.500	0.564		mg/L		107	75 - 125	1	20
Calcium	26		10.0	35.5		mg/L		93	75 - 125	0	20
Cobalt	<0.0010		0.500	0.505		mg/L		101	75 - 125	2	20
Lead	<0.00050		0.100	0.108		mg/L		108	75 - 125	3	20
Molybdenum	0.62		1.00	1.66		mg/L		104	75 - 125	1	20
Selenium	<0.0025		0.100	0.110		mg/L		109	75 - 125	1	20

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549550

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.016		0.100	0.120		mg/L		104	75 - 125	5	20

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549609

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	6.7		1.00	7.66	4	mg/L		93	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549354

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.032		0.0316		mg/L		0	20
Calcium	26		26.4		mg/L		0.4	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.62		0.627		mg/L		0.4	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549550

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.016		0.0159		mg/L		2	20

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549609

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	6.7		6.58		mg/L		2	20

Lab Sample ID: MB 500-549276/1-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:29	1
Barium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:29	1
Boron	<0.050		0.050		mg/L		06/25/20 06:38	06/26/20 13:29	1
Calcium	<0.20		0.20		mg/L		06/25/20 06:38	06/26/20 13:29	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:29	1
Lead	<0.00050		0.00050		mg/L		06/25/20 06:38	06/26/20 13:29	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/20 06:38	06/26/20 13:29	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:29	1

Lab Sample ID: LCS 500-549276/2-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0993		mg/L		99	80 - 120
Barium	0.500	0.512		mg/L		102	80 - 120
Boron	1.00	1.02		mg/L		102	80 - 120
Calcium	10.0	10.4		mg/L		104	80 - 120
Cobalt	0.500	0.513		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.989		mg/L		99	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-549425/1-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/20 17:52	06/26/20 14:17	1
Barium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 14:17	1
Boron	<0.050		0.050		mg/L		06/25/20 17:52	06/26/20 14:17	1
Calcium	<0.20		0.20		mg/L		06/25/20 17:52	06/26/20 14:17	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 17:52	06/26/20 14:17	1
Lead	<0.00050		0.00050		mg/L		06/25/20 17:52	06/26/20 14:17	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/20 17:52	06/26/20 14:17	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 14:17	1

Lab Sample ID: LCS 500-549425/2-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0946		mg/L		95	80 - 120
Barium	2.00	1.93		mg/L		96	80 - 120
Boron	1.00	0.988		mg/L		99	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Cobalt	0.500	0.506		mg/L		101	80 - 120
Lead	0.100	0.106		mg/L		106	80 - 120
Molybdenum	1.00	0.963		mg/L		96	80 - 120
Selenium	0.100	0.0993		mg/L		99	80 - 120

Lab Sample ID: MB 500-550154/1-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:04	1
Barium	<0.0025		0.0025		mg/L		06/30/20 17:40	07/01/20 12:04	1
Boron	<0.050	^	0.050		mg/L		06/30/20 17:40	07/01/20 12:04	1
Calcium	<0.20		0.20		mg/L		06/30/20 17:40	07/01/20 12:04	1
Cobalt	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:04	1
Lead	<0.00050		0.00050		mg/L		06/30/20 17:40	07/01/20 12:04	1
Molybdenum	<0.0050		0.0050		mg/L		06/30/20 17:40	07/01/20 12:04	1
Selenium	<0.0025		0.0025		mg/L		06/30/20 17:40	07/01/20 12:04	1

Lab Sample ID: MB 500-550154/1-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/30/20 17:40	07/02/20 12:59	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-550154/2-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0940		mg/L		94	80 - 120
Barium	2.00	1.95		mg/L		97	80 - 120
Calcium	10.0	9.82		mg/L		98	80 - 120
Cobalt	0.500	0.511		mg/L		102	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.981		mg/L		98	80 - 120
Selenium	0.100	0.0985		mg/L		99	80 - 120

Lab Sample ID: LCS 500-550154/2-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.05		mg/L		105	80 - 120

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550542

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.037		0.100	0.133		mg/L		96	75 - 125
Barium	0.015		2.00	1.95		mg/L		97	75 - 125
Calcium	16		10.0	23.6		mg/L		81	75 - 125
Cobalt	<0.0010		0.500	0.489		mg/L		98	75 - 125
Lead	<0.00050		0.100	0.102		mg/L		102	75 - 125
Molybdenum	0.46		1.00	1.42		mg/L		96	75 - 125
Selenium	0.0040		0.100	0.107		mg/L		103	75 - 125

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550587

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.2		1.00	6.44	4	mg/L		122	75 - 125

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550542

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.037		0.100	0.134		mg/L		97	75 - 125	1	20
Barium	0.015		2.00	1.97		mg/L		98	75 - 125	1	20
Calcium	16		10.0	23.2		mg/L		77	75 - 125	2	20
Cobalt	<0.0010		0.500	0.491		mg/L		98	75 - 125	1	20
Lead	<0.00050		0.100	0.103		mg/L		103	75 - 125	1	20
Molybdenum	0.46		1.00	1.43		mg/L		97	75 - 125	1	20
Selenium	0.0040		0.100	0.109		mg/L		105	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550587

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.2		1.00	6.36	4	mg/L		114	75 - 125	1	20

Lab Sample ID: 500-183935-19 DU
Matrix: Water
Analysis Batch: 550542

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.037		0.0338		mg/L		8	20
Barium	0.015		0.0136		mg/L		10	20
Calcium	16		14.4		mg/L		8	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.46		0.415		mg/L		9	20
Selenium	0.0040		0.00341		mg/L		16	20

Lab Sample ID: 500-183935-19 DU
Matrix: Water
Analysis Batch: 550587

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.2		5.34		mg/L		2	20

Lab Sample ID: MB 500-550246/1-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:11	1
Barium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:11	1
Calcium	<0.20		0.20		mg/L		07/01/20 06:35	07/01/20 13:11	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:11	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:11	1
Molybdenum	<0.0050		0.0050		mg/L		07/01/20 06:35	07/01/20 13:11	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:11	1

Lab Sample ID: MB 500-550246/1-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		07/01/20 06:35	07/02/20 12:14	1

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0944		mg/L		94	80 - 120
Barium	2.00	1.92		mg/L		96	80 - 120
Calcium	10.0	9.94		mg/L		99	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.500	0.505		mg/L		101	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.983		mg/L		98	80 - 120
Selenium	0.100	0.0994		mg/L		99	80 - 120

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: LCSD 500-550246/3-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.0976		mg/L		98	80 - 120	3	20
Barium	2.00	2.00		mg/L		100	80 - 120	4	20
Calcium	10.0	10.1		mg/L		101	80 - 120	2	20
Cobalt	0.500	0.524		mg/L		105	80 - 120	4	20
Lead	0.100	0.109		mg/L		109	80 - 120	3	20
Molybdenum	1.00	1.02		mg/L		102	80 - 120	4	20
Selenium	0.100	0.103		mg/L		103	80 - 120	3	20

Lab Sample ID: LCSD 500-550246/3-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.07		mg/L		107	80 - 120	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-283171/1
Matrix: Water
Analysis Batch: 283171

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			06/24/20 14:27	1

Lab Sample ID: LCS 310-283171/2
Matrix: Water
Analysis Batch: 283171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	972		mg/L		97	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 310-283379/1
Matrix: Water
Analysis Batch: 283379

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			06/26/20 09:06	1

Lab Sample ID: LCS 310-283379/2
Matrix: Water
Analysis Batch: 283379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	988		mg/L		99	90 - 110

Lab Sample ID: MB 310-283716/1
Matrix: Water
Analysis Batch: 283716

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			06/30/20 10:00	1

Lab Sample ID: LCS 310-283716/2
Matrix: Water
Analysis Batch: 283716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	984		mg/L		98	90 - 110

Lab Sample ID: MB 310-283903/1
Matrix: Water
Analysis Batch: 283903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			07/01/20 14:35	1

Lab Sample ID: LCS 310-283903/2
Matrix: Water
Analysis Batch: 283903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	952		mg/L		95	90 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-550210/50
Matrix: Water
Analysis Batch: 550210

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/30/20 20:49	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-550210/85
Matrix: Water
Analysis Batch: 550210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	52.2		mg/L		104	85 - 115		

Lab Sample ID: 500-183935-4 MS
Matrix: Water
Analysis Batch: 550210

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	88	F1	50.0	142		mg/L		108	75 - 125		

Lab Sample ID: 500-183935-4 MSD
Matrix: Water
Analysis Batch: 550210

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	88	F1	50.0	141		mg/L		105	75 - 125	1	20

Lab Sample ID: MB 500-550220/12
Matrix: Water
Analysis Batch: 550220

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/30/20 22:09	1

Lab Sample ID: LCS 500-550220/13
Matrix: Water
Analysis Batch: 550220

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	51.3		mg/L		103	85 - 115		

Lab Sample ID: 500-183935-13 MS
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	220		50.0	249	4	mg/L		68	75 - 125		

Lab Sample ID: 500-183935-13 MSD
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	220		50.0	250	4	mg/L		70	75 - 125	0	20

Lab Sample ID: 500-183935-14 MS
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	110		50.0	151		mg/L		82	75 - 125		

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 500-183935-14 MSD
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	155		mg/L		89	75 - 125	2	20

Lab Sample ID: MB 500-550893/145
Matrix: Water
Analysis Batch: 550893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/07/20 00:22	1

Lab Sample ID: LCS 500-550893/146
Matrix: Water
Analysis Batch: 550893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	55.7		mg/L		111	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-550744/3
Matrix: Water
Analysis Batch: 550744

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/03/20 11:24	1

Lab Sample ID: LCS 500-550744/4
Matrix: Water
Analysis Batch: 550744

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.7		mg/L		107	80 - 120

Lab Sample ID: 500-183935-1 MS
Matrix: Water
Analysis Batch: 550744

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.39		5.00	5.79		mg/L		108	75 - 125

Lab Sample ID: 500-183935-1 MSD
Matrix: Water
Analysis Batch: 550744

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.39		5.00	5.70		mg/L		106	75 - 125	2	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-549372/15
Matrix: Water
Analysis Batch: 549372

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/25/20 11:50	1

Lab Sample ID: LCS 500-549372/16
Matrix: Water
Analysis Batch: 549372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.3		mg/L		101	80 - 120

Lab Sample ID: MB 500-550123/15
Matrix: Water
Analysis Batch: 550123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/30/20 12:52	1

Lab Sample ID: LCS 500-550123/16
Matrix: Water
Analysis Batch: 550123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.7		mg/L		98	80 - 120

Lab Sample ID: 500-183935-7 MS
Matrix: Water
Analysis Batch: 550123

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	63		20.0	82.2		mg/L		94	75 - 125

Lab Sample ID: 500-183935-7 MSD
Matrix: Water
Analysis Batch: 550123

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	63		20.0	82.7		mg/L		97	75 - 125	1	20

Lab Sample ID: MB 500-550142/15
Matrix: Water
Analysis Batch: 550142

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/30/20 15:23	1

Lab Sample ID: LCS 500-550142/16
Matrix: Water
Analysis Batch: 550142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.9		mg/L		100	80 - 120

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550142

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	440	F1	20.0	449	4	mg/L		52	75 - 125		

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550142

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	440	F1	20.0	450	4	mg/L		54	75 - 125	0	20

Chain of Custody Record 457910

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: _____ TAL-8210

Client Contact	Project Manager:	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	**Analysis Turnaround Time**			Sampler:
City/State/Zip:	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, F, Cl, SO4	Total Metals As, B, Ca, Pb, Li, Mo, S	Sample Specific Notes:
TO9S	06/22/20	1008		W	5			/	/	/	/	/	
TO6S	06/22/20	1148		W	5			/	/	/	/	/	
TO5S	06/22/20	1337		W	5			/	/	/	/	/	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 9.1 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL 1540	06/22/20			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by Laboratory by:	Company:	Date/Time:
				TA-CHI	6/22/20 1540

Chain of Custody Record 457911

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Pb, Li, Mo, S, Ca, Co

TAL-8210

Client Contact	Project Manager: Jodie Bracken	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
PO #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals As, Ba, Cd, Co, Li, Mo, S	Sample Specific Notes:
4 TO28	06/23/20	0924		W	5			✓	✓	✓	✓	✓	
5 TOAJ	06/23/20	1151		W	5			✓	✓	✓	✓	✓	
6 TO3J	06/23/20	1353		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 8.5 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: TAL	Date/Time: 06/22/20 1510	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Shawn Scott	Company: TA-CHI	Date/Time: 06/23/20 1510

Chain of Custody Record

457912

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Ca, Pb, Li, Mo, S

TAL-8210

Client Contact	Project Manager: Jodie Bracken	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			500-183935

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226+228	TDS, Fl, Cl, SO4	Total Metals As, B, Ba, Ca, Co, Li, Mo, Pb, S	Sample Specific Notes:
G205	06/24/20	1020		W	5			1	1	1	1	1	
G335	06/24/20	1354		W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

6.6

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TMI	06/24/20 @ 1520			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Ann Scott	TA-Ark	6/24/20 1520

Chain of Custody Record 457913

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: 2Li, Mo, Sb

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226+228	TDS, Fl, Cl, SO4	Total Metals Al, B, Ba, Co, Li, Mo, Sb	Sample Specific Notes:
9 TOIS	06/25/20	0917		W	5			-	-	-	-	-	
10 G30S	06/25/20	1303		W	5			-	-	-	-	-	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 7.1 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	06/25/20 1510			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 6/25/20 1510

Chain of Custody Record 457914

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Diana Mackler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
PO #	☐ 1 day			

500-183935 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals Ba, B, Ca, Co, Mo, Li, Mn, S	Sample Specific Notes:
11	T045	06/26/20	0915		—									Unable to access well due to excavation
12	R085	06/26/20	0940		W	5			✓	✓	✓	✓	✓	
13	G455	06/26/20	1051		W	5			✓	✓	✓	✓	✓	
14	G485	06/26/20	1240		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.1 Corr'd:_____ Therm ID No.:_____

	Company	Date/Time		Company	Date/Time
Relinquished by:	TAL	1430 06/26/20	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received in Laboratory by: Ellen Krotz	TA-CHI	6/26/20 1430

Chain of Custody Record 457915

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: PA Li Mo, S

TAL-8210

Client Contact	Project Manager: Diany Mackler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 CW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals As, B, Ba, Co,
15 G46S	06/29/20	0937		W	5			✓	✓	✓	✓	✓
16 G44S	06/29/20	1051		W	5			✓	✓	✓	✓	✓
17 R32S	06/29/20	1314		W	5			✓	✓	✓	✓	✓
18 R32S DUP	06/29/20	1314		W	5			✓	✓	✓	✓	✓

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 6.7 Corr'd: 6.7 | Therm ID No.: _____

Relinquished by:	Company: TAL	Date/Time: 06/29/20 1430	Received by:	Company: TA	Date/Time: 06/29/20 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 457916

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: _____

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2820 GU	☐ 2 days			Job / SDG No.: 500 - 183935
P O #	☐ 1 day		500-183935 COC	

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals: As, B, Ba, Ca, Fe, Pb, Mg, Mn, Se, Tl	Sample Specific Notes:
19	G47S	06/30/20	0930		GW	5			-	-	-	-	-	
20	G31S	06/30/20	1103		W	5			-	-	-	-	-	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 9.5 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TAL	06/30/20 1220	[signature]		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL	Date/Time: 6/30/20 1220

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136584.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/14/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T02S (500-183935-4)	6/23/20	09:24 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T08S (500-183935-5)	6/23/20	11:51 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-183935-6)	6/23/20	13:53 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/23/20 1630	TA-CHI	FE		
2	FE			Jan Byk	6/24/20 08:42	ETASTL
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136576.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/20/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T09S (500-183935-1)	6/22/20	10:08 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T06S (500-183935-2)	6/22/20	11:48 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T05S (500-183935-3)	6/22/20	13:37 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/23/20 1630	TA-CHI	FE		
2	FE					
3					6/24/20 08:42	ETASTL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

eurofins | Environment Testing TestAmerica

500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: ETA Chicago

City/State: CITY University Park STATE IL

Project: Joliet #9 (Quarry) CCR

Receipt Information

Date/Time Received: DATE 6/24/20 TIME 1025

Received By: JR

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes:* Cooler ID:	H-16
Multiple Coolers?	☐ Yes ☒ No	*If yes:* Cooler # _____ of _____	
Cooler Custody Seals Present?	☒ Yes ☐ No	*If yes:* Cooler custody seals intact?	☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☒ No	*If yes:* Sample custody seals intact?	☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☒ No	*If yes:* Which VOA samples are in cooler? ↓	

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: J

Correction Factor (°C): +0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):

Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	plastic, 250ml, NT	
Uncorrected Temp (°C):	0.1	
Corrected Temp (°C):	0.2	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136563.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T09S (500-183935-1)	6/22/20	10:08 Central		Water			X	1	
T06S (500-183935-2)	6/22/20	11:48 Central		Water			X	1	
T05S (500-183935-3)	6/22/20	13:37 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/23/20 1630	TA-CHI		6/24/20 1025	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136583.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T02S (500-183935-4)	6/23/20	09:24 Central		Water			X	1	
T08S (500-183935-5)	6/23/20	11:51 Central		Water			X	1	
T03S (500-183935-6)	6/23/20	13:53 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/23/20 1630	TA-CHI		6/24/20 1025	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Test America Chicago

City/State: CITY University Park STATE IL

Project: NRG Midwest Generation

Receipt Information

Date/Time Received: DATE 6/25/20 TIME 0950

Received By: CC

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID: —
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: M

Correction Factor (°C): 0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):

Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	1L Plastic	250mL Plastic
Uncorrected Temp (°C):	1.1	0.7
Corrected Temp (°C):	1.2	0.8

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136645.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G20S (500-183935-7)	6/24/20	10:20 Central		Water			X	1	
G33S (500-183935-8)	6/24/20	13:54 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/24/20 1700	TA-CHI		6/25/20 0956	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: ETA Chicago

City/State: CITY STATE

Project: NRG Midwest Generation LSQ

Receipt Information

Date/Time Received: DATE 6/26/20 TIME 0955

Received By: EAM

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: N

Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):

Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	184090-1	
Uncorrected Temp (°C):	+1.5	
Corrected Temp (°C):	+1.5	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136673.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T01S (500-183935-9)	6/25/20	09:17 Central		Water			X	1	
G30S (500-183935-10)	6/25/20	13:03 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/25/20 1630	TAL-CHI	[signature]	6/26/2020 0950	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

eurofins | Environment Testing TestAmerica

500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: TTA Chicago

City/State: CITY University Park STATE FL | Project:

Receipt Information

Date/Time Received: DATE 6-27-20 TIME 0910 | Received By: ER

Delivery Type: ☐ UPS ☒ FedEx SAT ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☒ No *If yes:* Cooler # ____ of ____

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): +0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): | Corrected Temp (°C):

• Sample Container Temperature

Container(s) used:	CONTAINER 1	CONTAINER 2
	plastic 250 mL	
Uncorrected Temp (°C):	0.1	
Corrected Temp (°C):	0.2	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136707.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
R08S (500-183935-12)	6/26/20	09:40 Central		Water			X	1	
G45S (500-183935-13)	6/26/20	10:51 Central		Water			X	1	
G48S (500-183935-14)	6/26/20	12:40 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/26/20 1600	TA-CHI	[signature]	6-27-20 0800	ENO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

eurofins | Environment Testing TestAmerica

500-183935 Chain of Custody

Cooler/Sample Receipt and Temperatur

Client Information

Client: TA Chicago

City/State: CITY University Park STATE IL | Project: NRG Midwest Generation

Receipt Information

Date/Time Received: DATE 01/30/20 TIME 1100 | Received By: JJ

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: M | Correction Factor (°C): -0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): | Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	PC250NT	
Uncorrected Temp (°C):	0.4	
Corrected Temp (°C):	0.5	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136786.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/2/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G46S (500-183935-15)	6/29/20	09:37 Central		Water			X	1	
G44S (500-183935-16)	6/29/20	10:51 Central		Water			X	1	
R32S (500-183935-17)	6/29/20	13:14 Central		Water			X	1	
R32S DUP (500-183935-18)	6/29/20	13:14 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/29/20 1500	TA-CHI	[signature]	6/30/20 1100	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

eurofins | Environment Testing TestAmerica

500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: TA Chicago

City/State: CITY University Park STATE IL

Project: NRG Midwest Generating LLC

Receipt Information

Date/Time Received: DATE 7/1/20 TIME 1055

Received By: JJ

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: M

Correction Factor (°C): +0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):	Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	PLTLTNT	
Uncorrected Temp (°C):	0.7	
Corrected Temp (°C):	0.8	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136825.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/7/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G47S (500-183935-19)	6/30/20	09:30 Central		Water			X	1	
G31S (500-183935-20)	6/30/20	11:03 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Stephanie Hernandez	6/30/20 1630	TA-CHI		7/1/20 1055	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	9.1,8.5,6.6,7.1,9.1,6.7,9.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 2
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/24/20 12:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 4
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/25/20 11:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 6
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/26/20 12:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 8
Creator: Homolar, Dana J

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/29/20 07:20 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 9
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/30/20 02:09 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 11
Creator: Homolar, Dana J

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 07/01/20 11:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T09S
Date Collected: 06/22/20 10:08
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 09:50	JEF	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549124	06/23/20 14:30	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 20:55	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:33	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:56	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/22/20 10:08	JVB	TAL CHI

Client Sample ID: T06S
Date Collected: 06/22/20 11:48
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 09:54	JEF	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549124	06/23/20 14:32	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550210	06/30/20 20:56	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:41	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	549372	06/25/20 11:57	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/22/20 11:48	JVB	TAL CHI

Client Sample ID: T05S
Date Collected: 06/22/20 13:37
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 09:58	JEF	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549124	06/23/20 14:34	FXG	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		100	549354	06/24/20 11:37	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:44	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:57	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/22/20 13:37	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T02S

Lab Sample ID: 500-183935-4

Date Collected: 06/23/20 09:24

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:10	JEF	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549550	06/25/20 12:11	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549354	06/24/20 13:48	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	549609	06/26/20 10:17	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:47	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:57	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/23/20 09:24	JVB	TAL CHI

Client Sample ID: T08S

Lab Sample ID: 500-183935-5

Date Collected: 06/23/20 11:51

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:14	JEF	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549550	06/25/20 12:12	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549354	06/24/20 13:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	549609	06/26/20 10:20	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:50	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:58	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/23/20 11:51	JVB	TAL CHI

Client Sample ID: T03S

Lab Sample ID: 500-183935-6

Date Collected: 06/23/20 13:53

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:43	JEF	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549550	06/25/20 12:28	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549354	06/24/20 14:10	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T03S

Lab Sample ID: 500-183935-6

Date Collected: 06/23/20 13:53

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	549609	06/26/20 10:39	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:04	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:53	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:58	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/23/20 13:53	JVB	TAL CHI

Client Sample ID: G20S

Lab Sample ID: 500-183935-7

Date Collected: 06/24/20 10:20

Matrix: Water

Date Received: 06/24/20 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:55	JEF	TAL CHI
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 13:55	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283379	06/26/20 09:06	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550210	06/30/20 21:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:09	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 12:53	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/24/20 10:20	JVB	TAL CHI

Client Sample ID: G33S

Lab Sample ID: 500-183935-8

Date Collected: 06/24/20 13:54

Matrix: Water

Date Received: 06/24/20 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:59	JEF	TAL CHI
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 13:59	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283379	06/26/20 09:06	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550210	06/30/20 21:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:12	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 12:54	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/24/20 13:54	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T01S
Date Collected: 06/25/20 09:17
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 11:11	JEF	TAL CHI
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 15:36	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:16	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 12:54	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/25/20 09:17	JVB	TAL CHI

Client Sample ID: G30S
Date Collected: 06/25/20 13:03
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 11:15	JEF	TAL CHI
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 15:39	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:19	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 12:54	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/25/20 13:03	JVB	TAL CHI

Client Sample ID: T04S
Date Collected: 06/26/20 09:15
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 09:15	JVB	TAL CHI

Client Sample ID: R08S
Date Collected: 06/26/20 09:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:08	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:25	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R08S

Lab Sample ID: 500-183935-12

Date Collected: 06/26/20 09:40
Matrix: Water
Date Received: 06/26/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:22	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 12:55	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 09:40	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-183935-13

Date Collected: 06/26/20 10:51
Matrix: Water
Date Received: 06/26/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:12	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:30	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550587	07/02/20 12:29	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:41	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:25	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 12:55	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 10:51	JVB	TAL CHI

Client Sample ID: G48S

Lab Sample ID: 500-183935-14

Date Collected: 06/26/20 12:40
Matrix: Water
Date Received: 06/26/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:16	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:33	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:33	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:30	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:26	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 12:40	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-183935-15

Date Collected: 06/29/20 09:37

Matrix: Water

Date Received: 06/29/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:20	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:37	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		100	550587	07/02/20 12:37	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		25	550893	07/07/20 00:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:33	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:26	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 09:37	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-183935-16

Date Collected: 06/29/20 10:51

Matrix: Water

Date Received: 06/29/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:24	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:41	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		5	550587	07/02/20 12:40	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550220	06/30/20 22:20	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:36	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 13:27	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 10:51	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-183935-17

Date Collected: 06/29/20 13:14

Matrix: Water

Date Received: 06/29/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:29	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:44	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:44	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:39	MS	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R32S
Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:27	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 13:14	JVB	TAL CHI

Client Sample ID: R32S DUP
Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:33	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:48	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:48	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:52	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:27	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 13:14	JVB	TAL CHI

Client Sample ID: G47S
Date Collected: 06/30/20 09:30
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	550354	07/01/20 12:01	JEF	TAL CHI
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 12:11	FXG	TAL CHI
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 13:06	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:57	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550142	06/30/20 15:24	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/30/20 09:30	JVB	TAL CHI

Client Sample ID: G31S
Date Collected: 06/30/20 11:03
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	550354	07/01/20 12:21	JEF	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G31S

Date Collected: 06/30/20 11:03
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 12:30	FXG	TAL CHI
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 13:25	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:47	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 13:00	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550142	06/30/20 15:25	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/30/20 11:03	JVB	TAL CHI

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-183935-1
Client Project/Site: Joliet #9 (Quarry) CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Robin M Kintz

Authorized for release by:
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-183935-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-183935-1

Comments
No additional comments.

Receipt
The samples were received on 6/22/2020 3:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 6.6º C, 6.7º C, 7.1º C, 8.5º C, 9.1º C, 9.1º C and 9.5º C.

Metals
Method 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-549752. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CF
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-183935-1	T09S	Water	06/22/20 10:08	06/22/20 15:40	
500-183935-2	T06S	Water	06/22/20 11:48	06/22/20 15:40	
500-183935-3	T05S	Water	06/22/20 13:37	06/22/20 15:40	
500-183935-4	T02S	Water	06/23/20 09:24	06/23/20 15:10	
500-183935-5	T08S	Water	06/23/20 11:51	06/23/20 15:10	
500-183935-6	T03S	Water	06/23/20 13:53	06/23/20 15:10	
500-183935-7	G20S	Water	06/24/20 10:20	06/24/20 15:20	
500-183935-8	G33S	Water	06/24/20 13:54	06/24/20 15:20	
500-183935-9	T01S	Water	06/25/20 09:17	06/25/20 15:10	
500-183935-10	G30S	Water	06/25/20 13:03	06/25/20 15:10	
500-183935-11	T04S	Water	06/26/20 09:15	06/26/20 14:30	
500-183935-12	R08S	Water	06/26/20 09:40	06/26/20 14:30	
500-183935-13	G45S	Water	06/26/20 10:51	06/26/20 14:30	
500-183935-14	G48S	Water	06/26/20 12:40	06/26/20 14:30	
500-183935-15	G46S	Water	06/29/20 09:37	06/29/20 14:30	
500-183935-16	G44S	Water	06/29/20 10:51	06/29/20 14:30	
500-183935-17	R32S	Water	06/29/20 13:14	06/29/20 14:30	
500-183935-18	R32S DUP	Water	06/29/20 13:14	06/29/20 14:30	
500-183935-19	G47S	Water	06/30/20 09:30	06/30/20 12:20	
500-183935-20	G31S	Water	06/30/20 11:03	06/30/20 12:20	

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T09S

Date Collected: 06/22/20 10:08
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.052		0.010		mg/L		06/23/20 07:09	06/26/20 09:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0027		0.0010		mg/L		06/23/20 07:09	06/23/20 14:30	1
Barium	0.080		0.0025		mg/L		06/23/20 07:09	06/23/20 14:30	1
Boron	3.0		0.050		mg/L		06/23/20 07:09	06/23/20 14:30	1
Calcium	100		0.20		mg/L		06/23/20 07:09	06/23/20 14:30	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:30	1
Lead	0.0017		0.00050		mg/L		06/23/20 07:09	06/23/20 14:30	1
Molybdenum	0.52		0.0050		mg/L		06/23/20 07:09	06/23/20 14:30	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	790		30		mg/L			06/24/20 14:27	1
Chloride	82		10		mg/L			06/30/20 20:55	5
Fluoride	0.39		0.10		mg/L			07/03/20 11:33	1
Sulfate	300		100		mg/L			06/25/20 11:56	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.30				ft			06/22/20 10:08	1
Depth to Water (ft from MP)	100.70				ft			06/22/20 10:08	1
Elevation of well (ft from MP)	603.74				ft			06/22/20 10:08	1
Field pH	7.50				SU			06/22/20 10:08	1
Field Temperature	60.3				Degrees F			06/22/20 10:08	1
Ground Water Elevation	503.04				ft			06/22/20 10:08	1
Specific Conductance	1178				umhos/cm			06/22/20 10:08	1
Well bottom elevation	444.80				ft			06/22/20 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T06S

Date Collected: 06/22/20 11:48
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.026		0.010		mg/L		06/23/20 07:09	06/26/20 09:54	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:32	1
Barium	0.035		0.0025		mg/L		06/23/20 07:09	06/23/20 14:32	1
Boron	0.73		0.050		mg/L		06/23/20 07:09	06/23/20 14:32	1
Calcium	88		0.20		mg/L		06/23/20 07:09	06/23/20 14:32	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:32	1
Lead	<0.00050		0.00050		mg/L		06/23/20 07:09	06/23/20 14:32	1
Molybdenum	0.0060		0.0050		mg/L		06/23/20 07:09	06/23/20 14:32	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	460		30		mg/L			06/24/20 14:27	1
Chloride	13		2.0		mg/L			06/30/20 20:56	1
Fluoride	0.45		0.10		mg/L			07/03/20 11:41	1
Sulfate	95		25		mg/L			06/25/20 11:57	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	108.81				ft			06/22/20 11:48	1
Depth to Water (ft from MP)	111.11				ft			06/22/20 11:48	1
Elevation of well (ft from MP)	621.02				ft			06/22/20 11:48	1
Field pH	7.69				SU			06/22/20 11:48	1
Field Temperature	78.8				Degrees F			06/22/20 11:48	1
Ground Water Elevation	509.91				ft			06/22/20 11:48	1
Specific Conductance	779				umhos/cm			06/22/20 11:48	1
Well bottom elevation	447.94				ft			06/22/20 11:48	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T05S

Date Collected: 06/22/20 13:37
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.017		0.010		mg/L		06/23/20 07:09	06/26/20 09:58	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.13		0.0010		mg/L		06/23/20 07:09	06/23/20 14:34	1
Barium	0.010		0.0025		mg/L		06/23/20 07:09	06/23/20 14:34	1
Boron	12		5.0		mg/L		06/23/20 07:09	06/24/20 11:37	100
Calcium	3.5		0.20		mg/L		06/23/20 07:09	06/23/20 14:34	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:34	1
Lead	<0.00050		0.00050		mg/L		06/23/20 07:09	06/23/20 14:34	1
Molybdenum	0.96		0.0050		mg/L		06/23/20 07:09	06/23/20 14:34	1
Selenium	0.0038		0.0025		mg/L		06/23/20 07:09	06/23/20 14:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		150		mg/L			06/24/20 14:27	1
Chloride	150		10		mg/L			06/30/20 21:00	5
Fluoride	1.8		0.10		mg/L			07/03/20 11:44	1
Sulfate	560		100		mg/L			06/25/20 11:57	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	112.84				ft			06/22/20 13:37	1
Depth to Water (ft from MP)	115.24				ft			06/22/20 13:37	1
Elevation of well (ft from MP)	623.45				ft			06/22/20 13:37	1
Field pH	10.71				SU			06/22/20 13:37	1
Field Temperature	66.6				Degrees F			06/22/20 13:37	1
Ground Water Elevation	508.21				ft			06/22/20 13:37	1
Specific Conductance	2420				umhos/cm			06/22/20 13:37	1
Well bottom elevation	448.35				ft			06/22/20 13:37	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T02S

Date Collected: 06/23/20 09:24
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.034		0.010		mg/L		06/23/20 17:50	06/26/20 10:10	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.014		0.0010		mg/L		06/23/20 17:50	06/25/20 12:11	1
Barium	0.075		0.0025		mg/L		06/23/20 17:50	06/24/20 13:48	1
Boron	4.5		0.50		mg/L		06/23/20 17:50	06/26/20 10:17	10
Calcium	74		0.20		mg/L		06/23/20 17:50	06/24/20 13:48	1
Cobalt	0.0037		0.0010		mg/L		06/23/20 17:50	06/24/20 13:48	1
Lead	0.0012		0.00050		mg/L		06/23/20 17:50	06/24/20 13:48	1
Molybdenum	0.33		0.0050		mg/L		06/23/20 17:50	06/24/20 13:48	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	920		30		mg/L			06/24/20 14:27	1
Chloride	88	F1	10		mg/L			06/30/20 21:00	5
Fluoride	0.59		0.10		mg/L			07/03/20 11:47	1
Sulfate	370		100		mg/L			06/25/20 11:57	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	124.53				ft			06/23/20 09:24	1
Depth to Water (ft from MP)	126.86				ft			06/23/20 09:24	1
Elevation of well (ft from MP)	626.16				ft			06/23/20 09:24	1
Field pH	7.78				SU			06/23/20 09:24	1
Field Temperature	69.1				Degrees F			06/23/20 09:24	1
Ground Water Elevation	499.30				ft			06/23/20 09:24	1
Specific Conductance	1350				umhos/cm			06/23/20 09:24	1
Well bottom elevation	453.40				ft			06/23/20 09:24	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T08S

Date Collected: 06/23/20 11:51
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.033		0.010		mg/L		06/23/20 17:50	06/26/20 10:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016		0.0010		mg/L		06/23/20 17:50	06/25/20 12:12	1
Barium	0.032		0.0025		mg/L		06/23/20 17:50	06/24/20 13:52	1
Boron	6.7		1.0		mg/L		06/23/20 17:50	06/26/20 10:20	20
Calcium	26		0.20		mg/L		06/23/20 17:50	06/24/20 13:52	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 17:50	06/24/20 13:52	1
Lead	<0.00050		0.00050		mg/L		06/23/20 17:50	06/24/20 13:52	1
Molybdenum	0.62		0.0050		mg/L		06/23/20 17:50	06/24/20 13:52	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	880		30		mg/L			06/24/20 14:27	1
Chloride	94		10		mg/L			06/30/20 21:03	5
Fluoride	0.67		0.10		mg/L			07/03/20 11:50	1
Sulfate	390		100		mg/L			06/25/20 11:58	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	120.33				ft			06/23/20 11:51	1
Depth to Water (ft from MP)	122.71				ft			06/23/20 11:51	1
Elevation of well (ft from MP)	627.39				ft			06/23/20 11:51	1
Field pH	9.12				SU			06/23/20 11:51	1
Field Temperature	75.0				Degrees F			06/23/20 11:51	1
Ground Water Elevation	504.68				ft			06/23/20 11:51	1
Specific Conductance	1345				umhos/cm			06/23/20 11:51	1
Well bottom elevation	447.38				ft			06/23/20 11:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T03S

Date Collected: 06/23/20 13:53
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.025		0.010		mg/L		06/23/20 17:50	06/26/20 10:43	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0024		0.0010		mg/L		06/23/20 17:50	06/25/20 12:28	1
Barium	0.093		0.0025		mg/L		06/23/20 17:50	06/24/20 14:10	1
Boron	2.3		0.50		mg/L		06/23/20 17:50	06/26/20 10:39	10
Calcium	97		0.20		mg/L		06/23/20 17:50	06/24/20 14:10	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 17:50	06/24/20 14:10	1
Lead	<0.00050		0.00050		mg/L		06/23/20 17:50	06/24/20 14:10	1
Molybdenum	0.23		0.0050		mg/L		06/23/20 17:50	06/24/20 14:10	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	770		30		mg/L			06/24/20 14:27	1
Chloride	74		10		mg/L			06/30/20 21:04	5
Fluoride	0.33		0.10		mg/L			07/03/20 11:53	1
Sulfate	240		100		mg/L			06/25/20 11:58	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	128.19				ft			06/23/20 13:53	1
Depth to Water (ft from MP)	131.27				ft			06/23/20 13:53	1
Elevation of well (ft from MP)	629.89				ft			06/23/20 13:53	1
Field pH	7.29				SU			06/23/20 13:53	1
Field Temperature	57.4				Degrees F			06/23/20 13:53	1
Ground Water Elevation	498.62				ft			06/23/20 13:53	1
Specific Conductance	1220				umhos/cm			06/23/20 13:53	1
Well bottom elevation	456.70				ft			06/23/20 13:53	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G20S

Date Collected: 06/24/20 10:20
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-7

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.038**		0.010		mg/L		06/25/20 06:38	06/26/20 10:55	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:55	1
Barium	**0.045**		0.0025		mg/L		06/25/20 06:38	06/26/20 13:55	1
Boron	**1.3**		0.050		mg/L		06/25/20 06:38	06/26/20 13:55	1
Calcium	**58**		0.20		mg/L		06/25/20 06:38	06/26/20 13:55	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:55	1
Lead	<0.00050		0.00050		mg/L		06/25/20 06:38	06/26/20 13:55	1
Molybdenum	**0.019**		0.0050		mg/L		06/25/20 06:38	06/26/20 13:55	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**360**		30		mg/L			06/26/20 09:06	1
Chloride	**13**		2.0		mg/L			06/30/20 21:05	1
Fluoride	**0.79**		0.10		mg/L			07/03/20 12:09	1
Sulfate	**63**		25		mg/L			06/30/20 12:53	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**36.95**				ft			06/24/20 10:20	1
Depth to Water (ft from MP)	**39.73**				ft			06/24/20 10:20	1
Elevation of well (ft from MP)	**580.33**				ft			06/24/20 10:20	1
Field pH	**7.81**				SU			06/24/20 10:20	1
Field Temperature	**75.7**				Degrees F			06/24/20 10:20	1
Ground Water Elevation	**540.60**				ft			06/24/20 10:20	1
Specific Conductance	**699**				umhos/cm			06/24/20 10:20	1
Well bottom elevation	**442.28**				ft			06/24/20 10:20	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G33S

Date Collected: 06/24/20 13:54
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-8

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.040		0.010		mg/L		06/25/20 06:38	06/26/20 10:59	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0018		0.0010		mg/L		06/25/20 06:38	06/26/20 13:59	1
Barium	0.058		0.0025		mg/L		06/25/20 06:38	06/26/20 13:59	1
Boron	0.97		0.050		mg/L		06/25/20 06:38	06/26/20 13:59	1
Calcium	42		0.20		mg/L		06/25/20 06:38	06/26/20 13:59	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:59	1
Lead	0.0013		0.00050		mg/L		06/25/20 06:38	06/26/20 13:59	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/20 06:38	06/26/20 13:59	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	370		30		mg/L			06/26/20 09:06	1
Chloride	4.2		2.0		mg/L			06/30/20 21:05	1
Fluoride	0.97		0.10		mg/L			07/03/20 12:12	1
Sulfate	51		25		mg/L			06/30/20 12:54	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	26.48				ft			06/24/20 13:54	1
Depth to Water (ft from MP)	28.21				ft			06/24/20 13:54	1
Elevation of well (ft from MP)	535.66				ft			06/24/20 13:54	1
Field pH	7.59				SU			06/24/20 13:54	1
Field Temperature	65.7				Degrees F			06/24/20 13:54	1
Ground Water Elevation	507.45				ft			06/24/20 13:54	1
Specific Conductance	631				umhos/cm			06/24/20 13:54	1
Well bottom elevation	452.72				ft			06/24/20 13:54	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T01S

Date Collected: 06/25/20 09:17
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/20 17:52	06/26/20 11:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0086**		0.0010		mg/L		06/25/20 17:52	06/26/20 15:36	1
Barium	**0.047**		0.0025		mg/L		06/25/20 17:52	06/26/20 15:36	1
Boron	**4.0**		0.050		mg/L		06/25/20 17:52	06/26/20 15:36	1
Calcium	**52**		0.20		mg/L		06/25/20 17:52	06/26/20 15:36	1
Cobalt	**0.0010**		0.0010		mg/L		06/25/20 17:52	06/26/20 15:36	1
Lead	**0.00057**		0.00050		mg/L		06/25/20 17:52	06/26/20 15:36	1
Molybdenum	**0.32**		0.0050		mg/L		06/25/20 17:52	06/26/20 15:36	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**900**		30		mg/L			06/30/20 10:00	1
Chloride	**100**		10		mg/L			06/30/20 21:06	5
Fluoride	**1.1**		0.10		mg/L			07/03/20 12:16	1
Sulfate	**390**		100		mg/L			06/30/20 12:54	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**109.33**				ft			06/25/20 09:17	1
Depth to Water (ft from MP)	**111.81**				ft			06/25/20 09:17	1
Elevation of well (ft from MP)	**621.78**				ft			06/25/20 09:17	1
Field pH	**7.75**				SU			06/25/20 09:17	1
Field Temperature	**72.0**				Degrees F			06/25/20 09:17	1
Ground Water Elevation	**509.97**				ft			06/25/20 09:17	1
Specific Conductance	**1433**				umhos/cm			06/25/20 09:17	1
Well bottom elevation	**451.46**				ft			06/25/20 09:17	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G30S

Date Collected: 06/25/20 13:03
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.019		0.010		mg/L		06/25/20 17:52	06/26/20 11:15	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0053		0.0010		mg/L		06/25/20 17:52	06/26/20 15:39	1
Barium	0.042		0.0025		mg/L		06/25/20 17:52	06/26/20 15:39	1
Boron	4.9		0.050		mg/L		06/25/20 17:52	06/26/20 15:39	1
Calcium	57		0.20		mg/L		06/25/20 17:52	06/26/20 15:39	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 17:52	06/26/20 15:39	1
Lead	<0.00050		0.00050		mg/L		06/25/20 17:52	06/26/20 15:39	1
Molybdenum	0.020		0.0050		mg/L		06/25/20 17:52	06/26/20 15:39	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 15:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		30		mg/L			06/30/20 10:00	1
Chloride	220		10		mg/L			06/30/20 21:08	5
Fluoride	1.1		0.10		mg/L			07/03/20 12:19	1
Sulfate	410		100		mg/L			06/30/20 12:54	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-1.03				ft			06/25/20 13:03	1
Depth to Water (ft from MP)	1.28				ft			06/25/20 13:03	1
Elevation of well (ft from MP)	524.70				ft			06/25/20 13:03	1
Field pH	8.33				SU			06/25/20 13:03	1
Field Temperature	60.8				Degrees F			06/25/20 13:03	1
Ground Water Elevation	523.42				ft			06/25/20 13:03	1
Specific Conductance	1830				umhos/cm			06/25/20 13:03	1
Well bottom elevation	462.58				ft			06/25/20 13:03	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T04S

Date Collected: 06/26/20 09:15
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-11

Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	0				ft			06/26/20 09:15	1
Depth to Water (ft from MP)	0				ft			06/26/20 09:15	1
Elevation of well (ft from MP)	631.35				ft			06/26/20 09:15	1
Field pH	0				SU			06/26/20 09:15	1
Field Temperature	0				Degrees F			06/26/20 09:15	1
Ground Water Elevation	0				ft			06/26/20 09:15	1
Specific Conductance	0				umhos/cm			06/26/20 09:15	1
Well bottom elevation	458.07				ft			06/26/20 09:15	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R08S

Date Collected: 06/26/20 09:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-12

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.14		0.010		mg/L		07/01/20 06:35	07/01/20 23:08	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0011		0.0010		mg/L		07/01/20 06:35	07/01/20 13:26	1
Barium	0.043		0.0025		mg/L		07/01/20 06:35	07/01/20 13:26	1
Boron	7.9		1.0		mg/L		07/01/20 06:35	07/02/20 12:25	20
Calcium	140		0.20		mg/L		07/01/20 06:35	07/01/20 13:26	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:26	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:26	1
Molybdenum	0.36		0.0050		mg/L		07/01/20 06:35	07/01/20 13:26	1
Selenium	0.017		0.0025		mg/L		07/01/20 06:35	07/01/20 13:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	750		30		mg/L			06/30/20 10:00	1
Chloride	83		10		mg/L			06/30/20 21:08	5
Fluoride	0.15		0.10		mg/L			07/03/20 12:22	1
Sulfate	370		100		mg/L			06/30/20 12:55	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	63.14				ft			06/26/20 09:40	1
Depth to Water (ft from MP)	65.69				ft			06/26/20 09:40	1
Elevation of well (ft from MP)	578.62				ft			06/26/20 09:40	1
Field pH	8.32				SU			06/26/20 09:40	1
Field Temperature	57.7				Degrees F			06/26/20 09:40	1
Ground Water Elevation	512.93				ft			06/26/20 09:40	1
Specific Conductance	1107				umhos/cm			06/26/20 09:40	1
Well bottom elevation	453.08				ft			06/26/20 09:40	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G45S

Date Collected: 06/26/20 10:51
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-13

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.039		0.010		mg/L		07/01/20 06:35	07/01/20 23:12	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.0010		mg/L		07/01/20 06:35	07/01/20 13:30	1
Barium	0.049		0.0025		mg/L		07/01/20 06:35	07/01/20 13:30	1
Boron	0.62		0.050		mg/L		07/01/20 06:35	07/02/20 12:29	1
Calcium	130		0.20		mg/L		07/01/20 06:35	07/01/20 13:30	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:30	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:30	1
Molybdenum	0.0088		0.0050		mg/L		07/01/20 06:35	07/01/20 13:30	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	970		30		mg/L			06/30/20 10:00	1
Chloride	220		10		mg/L			06/30/20 23:41	5
Fluoride	0.33		0.10		mg/L			07/03/20 12:25	1
Sulfate	240		25		mg/L			06/30/20 12:55	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	58.15				ft			06/26/20 10:51	1
Depth to Water (ft from MP)	61.12				ft			06/26/20 10:51	1
Elevation of well (ft from MP)	603.31				ft			06/26/20 10:51	1
Field pH	7.21				SU			06/26/20 10:51	1
Field Temperature	58.8				Degrees F			06/26/20 10:51	1
Ground Water Elevation	542.19				ft			06/26/20 10:51	1
Specific Conductance	1590				umhos/cm			06/26/20 10:51	1
Well bottom elevation	471.05				ft			06/26/20 10:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G48S

Date Collected: 06/26/20 12:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-14

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		07/01/20 06:35	07/01/20 23:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		07/01/20 06:35	07/01/20 13:33	1
Barium	0.017		0.0025		mg/L		07/01/20 06:35	07/01/20 13:33	1
Boron	7.1		1.0		mg/L		07/01/20 06:35	07/02/20 12:33	20
Calcium	16		0.20		mg/L		07/01/20 06:35	07/01/20 13:33	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:33	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:33	1
Molybdenum	0.54		0.0050		mg/L		07/01/20 06:35	07/01/20 13:33	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		30		mg/L			06/30/20 10:00	1
Chloride	110		10		mg/L			06/30/20 23:42	5
Fluoride	1.0		0.10		mg/L			07/03/20 12:30	1
Sulfate	400		100		mg/L			06/30/20 13:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	94.39				ft			06/26/20 12:40	1
Depth to Water (ft from MP)	96.84				ft			06/26/20 12:40	1
Elevation of well (ft from MP)	620.78				ft			06/26/20 12:40	1
Field pH	9.20				SU			06/26/20 12:40	1
Field Temperature	59.5				Degrees F			06/26/20 12:40	1
Ground Water Elevation	523.94				ft			06/26/20 12:40	1
Specific Conductance	1560				umhos/cm			06/26/20 12:40	1
Well bottom elevation	468.32				ft			06/26/20 12:40	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G46S

Date Collected: 06/29/20 09:37
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-15

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.23		0.010		mg/L		07/01/20 06:35	07/01/20 23:20	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.075		0.0010		mg/L		07/01/20 06:35	07/01/20 13:37	1
Barium	0.050		0.0025		mg/L		07/01/20 06:35	07/01/20 13:37	1
Boron	13		5.0		mg/L		07/01/20 06:35	07/02/20 12:37	100
Calcium	96		0.20		mg/L		07/01/20 06:35	07/01/20 13:37	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:37	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:37	1
Molybdenum	1.7		0.0050		mg/L		07/01/20 06:35	07/01/20 13:37	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	980		30		mg/L			07/01/20 14:35	1
Chloride	74		50		mg/L			07/07/20 00:32	25
Fluoride	0.34		0.10		mg/L			07/03/20 12:33	1
Sulfate	510		100		mg/L			06/30/20 13:26	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	97.41				ft			06/29/20 09:37	1
Depth to Water (ft from MP)	100.11				ft			06/29/20 09:37	1
Elevation of well (ft from MP)	601.32				ft			06/29/20 09:37	1
Field pH	8.06				SU			06/29/20 09:37	1
Field Temperature	61.5				Degrees F			06/29/20 09:37	1
Ground Water Elevation	501.21				ft			06/29/20 09:37	1
Specific Conductance	1494				umhos/cm			06/29/20 09:37	1
Well bottom elevation	453.62				ft			06/29/20 09:37	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G44S

Date Collected: 06/29/20 10:51
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-16

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.024**		0.010		mg/L		07/01/20 06:35	07/01/20 23:24	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:41	1
Barium	**0.060**		0.0025		mg/L		07/01/20 06:35	07/01/20 13:41	1
Boron	**1.4**		0.25		mg/L		07/01/20 06:35	07/02/20 12:40	5
Calcium	**130**		0.20		mg/L		07/01/20 06:35	07/01/20 13:41	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:41	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:41	1
Molybdenum	**0.15**		0.0050		mg/L		07/01/20 06:35	07/01/20 13:41	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**670**		30		mg/L			07/01/20 14:35	1
Chloride	**52**		2.0		mg/L			06/30/20 22:20	1
Fluoride	**0.21**		0.10		mg/L			07/03/20 12:36	1
Sulfate	**160**		25		mg/L			06/30/20 13:27	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**75.60**				ft			06/29/20 10:51	1
Depth to Water (ft from MP)	**77.78**				ft			06/29/20 10:51	1
Elevation of well (ft from MP)	**586.69**				ft			06/29/20 10:51	1
Field pH	**7.30**				SU			06/29/20 10:51	1
Field Temperature	**70.9**				Degrees F			06/29/20 10:51	1
Ground Water Elevation	**508.91**				ft			06/29/20 10:51	1
Specific Conductance	**1055**				umhos/cm			06/29/20 10:51	1
Well bottom elevation	**455.11**				ft			06/29/20 10:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R32S

Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-17

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		07/01/20 06:35	07/01/20 23:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0021		0.0010		mg/L		07/01/20 06:35	07/01/20 13:44	1
Barium	0.038		0.0025		mg/L		07/01/20 06:35	07/01/20 13:44	1
Boron	6.0		1.0		mg/L		07/01/20 06:35	07/02/20 12:44	20
Calcium	130		0.20		mg/L		07/01/20 06:35	07/01/20 13:44	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:44	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:44	1
Molybdenum	0.64		0.0050		mg/L		07/01/20 06:35	07/01/20 13:44	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	790		30		mg/L			07/01/20 14:35	1
Chloride	71		10		mg/L			06/30/20 23:45	5
Fluoride	0.28		0.10		mg/L			07/03/20 12:39	1
Sulfate	400		100		mg/L			06/30/20 13:27	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	15.82				ft			06/29/20 13:14	1
Depth to Water (ft from MP)	17.85				ft			06/29/20 13:14	1
Elevation of well (ft from MP)	536.99				ft			06/29/20 13:14	1
Field pH	7.47				SU			06/29/20 13:14	1
Field Temperature	54.5				Degrees F			06/29/20 13:14	1
Ground Water Elevation	519.14				ft			06/29/20 13:14	1
Specific Conductance	1070				umhos/cm			06/29/20 13:14	1
Well bottom elevation	457.84				ft			06/29/20 13:14	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R32S DUP

Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-18

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.10		0.010		mg/L		07/01/20 06:35	07/01/20 23:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0022		0.0010		mg/L		07/01/20 06:35	07/01/20 13:48	1
Barium	0.038		0.0025		mg/L		07/01/20 06:35	07/01/20 13:48	1
Boron	5.8		1.0		mg/L		07/01/20 06:35	07/02/20 12:48	20
Calcium	130		0.20		mg/L		07/01/20 06:35	07/01/20 13:48	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:48	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:48	1
Molybdenum	0.63		0.0050		mg/L		07/01/20 06:35	07/01/20 13:48	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	850		30		mg/L			07/01/20 14:35	1
Chloride	79		10		mg/L			06/30/20 23:46	5
Fluoride	0.28		0.10		mg/L			07/03/20 12:52	1
Sulfate	430		100		mg/L			06/30/20 13:27	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	15.82				ft			06/29/20 13:14	1
Depth to Water (ft from MP)	17.85				ft			06/29/20 13:14	1
Elevation of well (ft from MP)	536.99				ft			06/29/20 13:14	1
Field pH	7.47				SU			06/29/20 13:14	1
Field Temperature	54.5				Degrees F			06/29/20 13:14	1
Ground Water Elevation	519.14				ft			06/29/20 13:14	1
Specific Conductance	1070				umhos/cm			06/29/20 13:14	1
Well bottom elevation	457.84				ft			06/29/20 13:14	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G47S

Date Collected: 06/30/20 09:30
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-19

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.052		0.010		mg/L		06/30/20 17:40	07/01/20 12:01	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.037		0.0010		mg/L		06/30/20 17:40	07/01/20 12:11	1
Barium	0.015		0.0025		mg/L		06/30/20 17:40	07/01/20 12:11	1
Boron	5.2		1.0		mg/L		06/30/20 17:40	07/02/20 13:06	20
Calcium	16		0.20		mg/L		06/30/20 17:40	07/01/20 12:11	1
Cobalt	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:11	1
Lead	<0.00050		0.00050		mg/L		06/30/20 17:40	07/01/20 12:11	1
Molybdenum	0.46		0.0050		mg/L		06/30/20 17:40	07/01/20 12:11	1
Selenium	0.0040		0.0025		mg/L		06/30/20 17:40	07/01/20 12:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		30		mg/L			07/01/20 14:35	1
Chloride	120		10		mg/L			06/30/20 23:46	5
Fluoride	0.59		0.10		mg/L			07/03/20 12:57	1
Sulfate	440	F1	100		mg/L			06/30/20 15:24	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	87.39				ft			06/30/20 09:30	1
Depth to Water (ft from MP)	89.89				ft			06/30/20 09:30	1
Elevation of well (ft from MP)	612.10				ft			06/30/20 09:30	1
Field pH	9.04				SU			06/30/20 09:30	1
Field Temperature	63.5				Degrees F			06/30/20 09:30	1
Ground Water Elevation	522.21				ft			06/30/20 09:30	1
Specific Conductance	1730				umhos/cm			06/30/20 09:30	1
Well bottom elevation	459.84				ft			06/30/20 09:30	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G31S

Date Collected: 06/30/20 11:03
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-20

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.10		0.010		mg/L		06/30/20 17:40	07/01/20 12:21	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0036		0.0010		mg/L		06/30/20 17:40	07/01/20 12:30	1
Barium	0.047		0.0025		mg/L		06/30/20 17:40	07/01/20 12:30	1
Boron	4.5		1.0		mg/L		06/30/20 17:40	07/02/20 13:25	20
Calcium	140		0.20		mg/L		06/30/20 17:40	07/01/20 12:30	1
Cobalt	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:30	1
Lead	<0.00050		0.00050		mg/L		06/30/20 17:40	07/01/20 12:30	1
Molybdenum	0.65		0.0050		mg/L		06/30/20 17:40	07/01/20 12:30	1
Selenium	<0.0025		0.0025		mg/L		06/30/20 17:40	07/01/20 12:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		30		mg/L			07/01/20 14:35	1
Chloride	230		10		mg/L			06/30/20 23:47	5
Fluoride	0.26		0.10		mg/L			07/03/20 13:00	1
Sulfate	390		100		mg/L			06/30/20 15:25	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	23.62				ft			06/30/20 11:03	1
Depth to Water (ft from MP)	26.20				ft			06/30/20 11:03	1
Elevation of well (ft from MP)	535.78				ft			06/30/20 11:03	1
Field pH	7.26				SU			06/30/20 11:03	1
Field Temperature	62.6				Degrees F			06/30/20 11:03	1
Ground Water Elevation	509.58				ft			06/30/20 11:03	1
Specific Conductance	2430				umhos/cm			06/30/20 11:03	1
Well bottom elevation	453.36				ft			06/30/20 11:03	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Qualifiers

Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Metals

Prep Batch: 548849

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total Recoverable	Water	3005A	
500-183935-2	T06S	Total Recoverable	Water	3005A	
500-183935-3	T05S	Total Recoverable	Water	3005A	
MB 500-548849/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-548849/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 548978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-4	T02S	Total Recoverable	Water	3005A	
500-183935-5	T08S	Total Recoverable	Water	3005A	
500-183935-6	T03S	Total Recoverable	Water	3005A	
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-183935-5 MS	T08S	Total Recoverable	Water	3005A	
500-183935-5 MSD	T08S	Total Recoverable	Water	3005A	
500-183935-5 DU	T08S	Total Recoverable	Water	3005A	

Analysis Batch: 549124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total Recoverable	Water	6020A	548849
500-183935-2	T06S	Total Recoverable	Water	6020A	548849
500-183935-3	T05S	Total Recoverable	Water	6020A	548849
MB 500-548849/1-A	Method Blank	Total Recoverable	Water	6020A	548849
LCS 500-548849/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548849

Prep Batch: 549276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total Recoverable	Water	3005A	
500-183935-8	G33S	Total Recoverable	Water	3005A	
MB 500-549276/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-549276/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 549354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-3	T05S	Total Recoverable	Water	6020A	548849
500-183935-4	T02S	Total Recoverable	Water	6020A	548978
500-183935-5	T08S	Total Recoverable	Water	6020A	548978
500-183935-6	T03S	Total Recoverable	Water	6020A	548978
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6020A	548978
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548978
500-183935-5 MS	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6020A	548978

Prep Batch: 549425

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-9	T01S	Total Recoverable	Water	3005A	
500-183935-10	G30S	Total Recoverable	Water	3005A	
MB 500-549425/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-549425/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 549550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-4	T02S	Total Recoverable	Water	6020A	548978
500-183935-5	T08S	Total Recoverable	Water	6020A	548978
500-183935-6	T03S	Total Recoverable	Water	6020A	548978
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6020A	548978
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548978
500-183935-5 MS	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6020A	548978

Analysis Batch: 549609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-4	T02S	Total Recoverable	Water	6020A	548978
500-183935-5	T08S	Total Recoverable	Water	6020A	548978
500-183935-6	T03S	Total Recoverable	Water	6020A	548978
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6020A	548978
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6020A	548978
500-183935-5 MS	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6020A	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6020A	548978

Analysis Batch: 549617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total Recoverable	Water	6010C	548849
500-183935-2	T06S	Total Recoverable	Water	6010C	548849
500-183935-3	T05S	Total Recoverable	Water	6010C	548849
500-183935-4	T02S	Total Recoverable	Water	6010C	548978
500-183935-5	T08S	Total Recoverable	Water	6010C	548978
500-183935-6	T03S	Total Recoverable	Water	6010C	548978
500-183935-7	G20S	Total Recoverable	Water	6010C	549276
500-183935-8	G33S	Total Recoverable	Water	6010C	549276
500-183935-9	T01S	Total Recoverable	Water	6010C	549425
500-183935-10	G30S	Total Recoverable	Water	6010C	549425
MB 500-548849/1-A	Method Blank	Total Recoverable	Water	6010C	548849
MB 500-548978/1-A	Method Blank	Total Recoverable	Water	6010C	548978
MB 500-549276/1-A	Method Blank	Total Recoverable	Water	6010C	549276
MB 500-549425/1-A	Method Blank	Total Recoverable	Water	6010C	549425
LCS 500-548849/2-A	Lab Control Sample	Total Recoverable	Water	6010C	548849
LCS 500-548978/2-A	Lab Control Sample	Total Recoverable	Water	6010C	548978
LCS 500-549276/2-A	Lab Control Sample	Total Recoverable	Water	6010C	549276
LCS 500-549425/2-A	Lab Control Sample	Total Recoverable	Water	6010C	549425
500-183935-5 MS	T08S	Total Recoverable	Water	6010C	548978
500-183935-5 MSD	T08S	Total Recoverable	Water	6010C	548978
500-183935-5 DU	T08S	Total Recoverable	Water	6010C	548978

Analysis Batch: 549752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total Recoverable	Water	6020A	549276
500-183935-8	G33S	Total Recoverable	Water	6020A	549276
500-183935-9	T01S	Total Recoverable	Water	6020A	549425
500-183935-10	G30S	Total Recoverable	Water	6020A	549425
MB 500-549276/1-A	Method Blank	Total Recoverable	Water	6020A	549276

Metals (Continued)

Analysis Batch: 549752 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-549425/1-A	Method Blank	Total Recoverable	Water	6020A	549425
LCS 500-549276/2-A	Lab Control Sample	Total Recoverable	Water	6020A	549276
LCS 500-549425/2-A	Lab Control Sample	Total Recoverable	Water	6020A	549425

Prep Batch: 550154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-19	G47S	Total Recoverable	Water	3005A	
500-183935-20	G31S	Total Recoverable	Water	3005A	
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-183935-19 MS	G47S	Total Recoverable	Water	3005A	
500-183935-19 MSD	G47S	Total Recoverable	Water	3005A	
500-183935-19 DU	G47S	Total Recoverable	Water	3005A	

Prep Batch: 550246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	3005A	
500-183935-13	G45S	Total Recoverable	Water	3005A	
500-183935-14	G48S	Total Recoverable	Water	3005A	
500-183935-15	G46S	Total Recoverable	Water	3005A	
500-183935-16	G44S	Total Recoverable	Water	3005A	
500-183935-17	R32S	Total Recoverable	Water	3005A	
500-183935-18	R32S DUP	Total Recoverable	Water	3005A	
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 550354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-19	G47S	Total Recoverable	Water	6010C	550154
500-183935-20	G31S	Total Recoverable	Water	6010C	550154
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	6010C	550154
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	6010C	550154
500-183935-19 MS	G47S	Total Recoverable	Water	6010C	550154
500-183935-19 MSD	G47S	Total Recoverable	Water	6010C	550154
500-183935-19 DU	G47S	Total Recoverable	Water	6010C	550154

Analysis Batch: 550449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	6010C	550246
500-183935-13	G45S	Total Recoverable	Water	6010C	550246
500-183935-14	G48S	Total Recoverable	Water	6010C	550246
500-183935-15	G46S	Total Recoverable	Water	6010C	550246
500-183935-16	G44S	Total Recoverable	Water	6010C	550246
500-183935-17	R32S	Total Recoverable	Water	6010C	550246
500-183935-18	R32S DUP	Total Recoverable	Water	6010C	550246
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	6010C	550246
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	6010C	550246
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	550246

Metals

Analysis Batch: 550542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	6020A	550246
500-183935-13	G45S	Total Recoverable	Water	6020A	550246
500-183935-14	G48S	Total Recoverable	Water	6020A	550246
500-183935-15	G46S	Total Recoverable	Water	6020A	550246
500-183935-16	G44S	Total Recoverable	Water	6020A	550246
500-183935-17	R32S	Total Recoverable	Water	6020A	550246
500-183935-18	R32S DUP	Total Recoverable	Water	6020A	550246
500-183935-19	G47S	Total Recoverable	Water	6020A	550154
500-183935-20	G31S	Total Recoverable	Water	6020A	550154
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	6020A	550154
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	6020A	550246
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550154
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550246
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	550246
500-183935-19 MS	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 MSD	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 DU	G47S	Total Recoverable	Water	6020A	550154

Analysis Batch: 550587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-12	R08S	Total Recoverable	Water	6020A	550246
500-183935-13	G45S	Total Recoverable	Water	6020A	550246
500-183935-14	G48S	Total Recoverable	Water	6020A	550246
500-183935-15	G46S	Total Recoverable	Water	6020A	550246
500-183935-16	G44S	Total Recoverable	Water	6020A	550246
500-183935-17	R32S	Total Recoverable	Water	6020A	550246
500-183935-18	R32S DUP	Total Recoverable	Water	6020A	550246
500-183935-19	G47S	Total Recoverable	Water	6020A	550154
500-183935-20	G31S	Total Recoverable	Water	6020A	550154
MB 500-550154/1-A	Method Blank	Total Recoverable	Water	6020A	550154
MB 500-550246/1-A	Method Blank	Total Recoverable	Water	6020A	550246
LCS 500-550154/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550154
LCS 500-550246/2-A	Lab Control Sample	Total Recoverable	Water	6020A	550246
LCSD 500-550246/3-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	550246
500-183935-19 MS	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 MSD	G47S	Total Recoverable	Water	6020A	550154
500-183935-19 DU	G47S	Total Recoverable	Water	6020A	550154

General Chemistry

Analysis Batch: 283171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 2540C	
500-183935-2	T06S	Total/NA	Water	SM 2540C	
500-183935-3	T05S	Total/NA	Water	SM 2540C	
500-183935-4	T02S	Total/NA	Water	SM 2540C	
500-183935-5	T08S	Total/NA	Water	SM 2540C	
500-183935-6	T03S	Total/NA	Water	SM 2540C	
MB 310-283171/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283171/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 283379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total/NA	Water	SM 2540C	
500-183935-8	G33S	Total/NA	Water	SM 2540C	
MB 310-283379/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283379/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 283716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-9	T01S	Total/NA	Water	SM 2540C	
500-183935-10	G30S	Total/NA	Water	SM 2540C	
500-183935-12	R08S	Total/NA	Water	SM 2540C	
500-183935-13	G45S	Total/NA	Water	SM 2540C	
500-183935-14	G48S	Total/NA	Water	SM 2540C	
MB 310-283716/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283716/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 283903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-15	G46S	Total/NA	Water	SM 2540C	
500-183935-16	G44S	Total/NA	Water	SM 2540C	
500-183935-17	R32S	Total/NA	Water	SM 2540C	
500-183935-18	R32S DUP	Total/NA	Water	SM 2540C	
500-183935-19	G47S	Total/NA	Water	SM 2540C	
500-183935-20	G31S	Total/NA	Water	SM 2540C	
MB 310-283903/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-283903/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 549372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 4500 SO4 E	
500-183935-2	T06S	Total/NA	Water	SM 4500 SO4 E	
500-183935-3	T05S	Total/NA	Water	SM 4500 SO4 E	
500-183935-4	T02S	Total/NA	Water	SM 4500 SO4 E	
500-183935-5	T08S	Total/NA	Water	SM 4500 SO4 E	
500-183935-6	T03S	Total/NA	Water	SM 4500 SO4 E	
MB 500-549372/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-549372/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 550123

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total/NA	Water	SM 4500 SO4 E	
500-183935-8	G33S	Total/NA	Water	SM 4500 SO4 E	
500-183935-9	T01S	Total/NA	Water	SM 4500 SO4 E	
500-183935-10	G30S	Total/NA	Water	SM 4500 SO4 E	
500-183935-12	R08S	Total/NA	Water	SM 4500 SO4 E	
500-183935-13	G45S	Total/NA	Water	SM 4500 SO4 E	
500-183935-14	G48S	Total/NA	Water	SM 4500 SO4 E	
500-183935-15	G46S	Total/NA	Water	SM 4500 SO4 E	
500-183935-16	G44S	Total/NA	Water	SM 4500 SO4 E	
500-183935-17	R32S	Total/NA	Water	SM 4500 SO4 E	
500-183935-18	R32S DUP	Total/NA	Water	SM 4500 SO4 E	
MB 500-550123/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 550123 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-550123/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-183935-7 MS	G20S	Total/NA	Water	SM 4500 SO4 E	
500-183935-7 MSD	G20S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 550142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-19	G47S	Total/NA	Water	SM 4500 SO4 E	
500-183935-20	G31S	Total/NA	Water	SM 4500 SO4 E	
MB 500-550142/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-550142/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-183935-19 MS	G47S	Total/NA	Water	SM 4500 SO4 E	
500-183935-19 MSD	G47S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 550210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 4500 Cl- E	
500-183935-2	T06S	Total/NA	Water	SM 4500 Cl- E	
500-183935-3	T05S	Total/NA	Water	SM 4500 Cl- E	
500-183935-4	T02S	Total/NA	Water	SM 4500 Cl- E	
500-183935-5	T08S	Total/NA	Water	SM 4500 Cl- E	
500-183935-6	T03S	Total/NA	Water	SM 4500 Cl- E	
500-183935-7	G20S	Total/NA	Water	SM 4500 Cl- E	
500-183935-8	G33S	Total/NA	Water	SM 4500 Cl- E	
500-183935-9	T01S	Total/NA	Water	SM 4500 Cl- E	
500-183935-10	G30S	Total/NA	Water	SM 4500 Cl- E	
500-183935-12	R08S	Total/NA	Water	SM 4500 Cl- E	
MB 500-550210/50	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-550210/85	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-183935-4 MS	T02S	Total/NA	Water	SM 4500 Cl- E	
500-183935-4 MSD	T02S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 550220

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-13	G45S	Total/NA	Water	SM 4500 Cl- E	
500-183935-14	G48S	Total/NA	Water	SM 4500 Cl- E	
500-183935-16	G44S	Total/NA	Water	SM 4500 Cl- E	
500-183935-17	R32S	Total/NA	Water	SM 4500 Cl- E	
500-183935-18	R32S DUP	Total/NA	Water	SM 4500 Cl- E	
500-183935-19	G47S	Total/NA	Water	SM 4500 Cl- E	
500-183935-20	G31S	Total/NA	Water	SM 4500 Cl- E	
MB 500-550220/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-550220/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-183935-13 MS	G45S	Total/NA	Water	SM 4500 Cl- E	
500-183935-13 MSD	G45S	Total/NA	Water	SM 4500 Cl- E	
500-183935-14 MS	G48S	Total/NA	Water	SM 4500 Cl- E	
500-183935-14 MSD	G48S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 550744

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	SM 4500 F C	
500-183935-2	T06S	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 550744 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-3	T05S	Total/NA	Water	SM 4500 F C	
500-183935-4	T02S	Total/NA	Water	SM 4500 F C	
500-183935-5	T08S	Total/NA	Water	SM 4500 F C	
500-183935-6	T03S	Total/NA	Water	SM 4500 F C	
500-183935-7	G20S	Total/NA	Water	SM 4500 F C	
500-183935-8	G33S	Total/NA	Water	SM 4500 F C	
500-183935-9	T01S	Total/NA	Water	SM 4500 F C	
500-183935-10	G30S	Total/NA	Water	SM 4500 F C	
500-183935-12	R08S	Total/NA	Water	SM 4500 F C	
500-183935-13	G45S	Total/NA	Water	SM 4500 F C	
500-183935-14	G48S	Total/NA	Water	SM 4500 F C	
500-183935-15	G46S	Total/NA	Water	SM 4500 F C	
500-183935-16	G44S	Total/NA	Water	SM 4500 F C	
500-183935-17	R32S	Total/NA	Water	SM 4500 F C	
500-183935-18	R32S DUP	Total/NA	Water	SM 4500 F C	
500-183935-19	G47S	Total/NA	Water	SM 4500 F C	
500-183935-20	G31S	Total/NA	Water	SM 4500 F C	
MB 500-550744/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-550744/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-183935-1 MS	T09S	Total/NA	Water	SM 4500 F C	
500-183935-1 MSD	T09S	Total/NA	Water	SM 4500 F C	

Analysis Batch: 550893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-15	G46S	Total/NA	Water	SM 4500 Cl- E	
MB 500-550893/145	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-550893/146	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Field Service / Mobile Lab

Analysis Batch: 550377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	Field Sampling	
500-183935-2	T06S	Total/NA	Water	Field Sampling	
500-183935-3	T05S	Total/NA	Water	Field Sampling	
500-183935-4	T02S	Total/NA	Water	Field Sampling	
500-183935-5	T08S	Total/NA	Water	Field Sampling	
500-183935-6	T03S	Total/NA	Water	Field Sampling	
500-183935-7	G20S	Total/NA	Water	Field Sampling	
500-183935-8	G33S	Total/NA	Water	Field Sampling	
500-183935-9	T01S	Total/NA	Water	Field Sampling	
500-183935-10	G30S	Total/NA	Water	Field Sampling	
500-183935-11	T04S	Total/NA	Water	Field Sampling	
500-183935-12	R08S	Total/NA	Water	Field Sampling	
500-183935-13	G45S	Total/NA	Water	Field Sampling	
500-183935-14	G48S	Total/NA	Water	Field Sampling	
500-183935-15	G46S	Total/NA	Water	Field Sampling	
500-183935-16	G44S	Total/NA	Water	Field Sampling	
500-183935-17	R32S	Total/NA	Water	Field Sampling	
500-183935-18	R32S DUP	Total/NA	Water	Field Sampling	
500-183935-19	G47S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 550377 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-20	G31S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-548849/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/23/20 07:09	06/26/20 09:34	1

Lab Sample ID: LCS 500-548849/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/23/20 17:50	06/26/20 10:02	1

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549617

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.033		0.100	0.136		mg/L		104	75 - 125

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549617

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.033		0.100	0.139		mg/L		106	75 - 125	2	20

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549617

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.033		0.0315		mg/L		4	20

Lab Sample ID: MB 500-549276/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/20 06:38	06/26/20 10:47	1

Method: 6010C - Metals (ICP)

Lab Sample ID: LCS 500-549276/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: MB 500-549425/1-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/25/20 17:52	06/26/20 11:03	1

Lab Sample ID: LCS 500-549425/2-A
Matrix: Water
Analysis Batch: 549617

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.495		mg/L		99	80 - 120

Lab Sample ID: MB 500-550154/1-A
Matrix: Water
Analysis Batch: 550354

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		06/30/20 17:40	07/01/20 11:45	1

Lab Sample ID: LCS 500-550154/2-A
Matrix: Water
Analysis Batch: 550354

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.510		mg/L		102	80 - 120

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550354

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.052		0.500	0.571		mg/L		104	75 - 125

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550354

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.052		0.500	0.570		mg/L		104	75 - 125	0	20

Lab Sample ID: 500-183935-19 DU
Matrix: Water
Analysis Batch: 550354

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.052		0.0539		mg/L		3	20

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-550246/1-A
Matrix: Water
Analysis Batch: 550449

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		07/01/20 06:35	07/01/20 22:48	1

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550449

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.517		mg/L		103	80 - 120

Lab Sample ID: LCSD 500-550246/3-A
Matrix: Water
Analysis Batch: 550449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.500	0.527		mg/L		105	80 - 120	2	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-548849/1-A
Matrix: Water
Analysis Batch: 549124

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:24	1
Barium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:24	1
Boron	<0.050		0.050		mg/L		06/23/20 07:09	06/23/20 14:24	1
Calcium	<0.20		0.20		mg/L		06/23/20 07:09	06/23/20 14:24	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 07:09	06/23/20 14:24	1
Lead	<0.00050		0.00050		mg/L		06/23/20 07:09	06/23/20 14:24	1
Molybdenum	<0.0050		0.0050		mg/L		06/23/20 07:09	06/23/20 14:24	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 07:09	06/23/20 14:24	1

Lab Sample ID: LCS 500-548849/2-A
Matrix: Water
Analysis Batch: 549124

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548849

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.101		mg/L		101	80 - 120
Barium	0.500	0.518		mg/L		104	80 - 120
Boron	1.00	1.02		mg/L		102	80 - 120
Calcium	10.0	11.1		mg/L		111	80 - 120
Cobalt	0.500	0.516		mg/L		103	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Molybdenum	1.00	0.948		mg/L		95	80 - 120
Selenium	0.100	0.107		mg/L		107	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549354

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:40	1
Calcium	<0.20		0.20		mg/L		06/23/20 17:50	06/24/20 13:40	1
Cobalt	<0.0010		0.0010		mg/L		06/23/20 17:50	06/24/20 13:40	1
Lead	<0.00050		0.00050		mg/L		06/23/20 17:50	06/24/20 13:40	1
Molybdenum	<0.0050		0.0050		mg/L		06/23/20 17:50	06/24/20 13:40	1
Selenium	<0.0025		0.0025		mg/L		06/23/20 17:50	06/24/20 13:40	1

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549550

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/23/20 17:50	06/25/20 12:07	1

Lab Sample ID: MB 500-548978/1-A
Matrix: Water
Analysis Batch: 549609

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/23/20 17:50	06/26/20 10:09	1

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549354

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.500	0.533		mg/L		107	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Cobalt	0.500	0.514		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Selenium	0.100	0.104		mg/L		104	80 - 120

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549550

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0987		mg/L		99	80 - 120

Lab Sample ID: LCS 500-548978/2-A
Matrix: Water
Analysis Batch: 549609

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549354

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	0.032		0.500	0.560		mg/L		106	75 - 125
Calcium	26		10.0	35.5		mg/L		92	75 - 125
Cobalt	<0.0010		0.500	0.495		mg/L		99	75 - 125
Lead	<0.00050		0.100	0.105		mg/L		105	75 - 125
Molybdenum	0.62		1.00	1.65		mg/L		102	75 - 125
Selenium	<0.0025		0.100	0.108		mg/L		107	75 - 125

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549550

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.016		0.100	0.114		mg/L		98	75 - 125

Lab Sample ID: 500-183935-5 MS
Matrix: Water
Analysis Batch: 549609

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	6.7		1.00	7.73	4	mg/L		100	75 - 125

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549354

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Barium	0.032		0.500	0.564		mg/L		107	75 - 125	1	20
Calcium	26		10.0	35.5		mg/L		93	75 - 125	0	20
Cobalt	<0.0010		0.500	0.505		mg/L		101	75 - 125	2	20
Lead	<0.00050		0.100	0.108		mg/L		108	75 - 125	3	20
Molybdenum	0.62		1.00	1.66		mg/L		104	75 - 125	1	20
Selenium	<0.0025		0.100	0.110		mg/L		109	75 - 125	1	20

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549550

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.016		0.100	0.120		mg/L		104	75 - 125	5	20

Lab Sample ID: 500-183935-5 MSD
Matrix: Water
Analysis Batch: 549609

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	6.7		1.00	7.66	4	mg/L		93	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549354

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Barium	0.032		0.0316		mg/L		0	20
Calcium	26		26.4		mg/L		0.4	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.62		0.627		mg/L		0.4	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549550

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.016		0.0159		mg/L		2	20

Lab Sample ID: 500-183935-5 DU
Matrix: Water
Analysis Batch: 549609

Client Sample ID: T08S
Prep Type: Total Recoverable
Prep Batch: 548978

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	6.7		6.58		mg/L		2	20

Lab Sample ID: MB 500-549276/1-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:29	1
Barium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:29	1
Boron	<0.050		0.050		mg/L		06/25/20 06:38	06/26/20 13:29	1
Calcium	<0.20		0.20		mg/L		06/25/20 06:38	06/26/20 13:29	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 06:38	06/26/20 13:29	1
Lead	<0.00050		0.00050		mg/L		06/25/20 06:38	06/26/20 13:29	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/20 06:38	06/26/20 13:29	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 06:38	06/26/20 13:29	1

Lab Sample ID: LCS 500-549276/2-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0993		mg/L		99	80 - 120
Barium	0.500	0.512		mg/L		102	80 - 120
Boron	1.00	1.02		mg/L		102	80 - 120
Calcium	10.0	10.4		mg/L		104	80 - 120
Cobalt	0.500	0.513		mg/L		103	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.989		mg/L		99	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-549425/1-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/25/20 17:52	06/26/20 14:17	1
Barium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 14:17	1
Boron	<0.050		0.050		mg/L		06/25/20 17:52	06/26/20 14:17	1
Calcium	<0.20		0.20		mg/L		06/25/20 17:52	06/26/20 14:17	1
Cobalt	<0.0010		0.0010		mg/L		06/25/20 17:52	06/26/20 14:17	1
Lead	<0.00050		0.00050		mg/L		06/25/20 17:52	06/26/20 14:17	1
Molybdenum	<0.0050		0.0050		mg/L		06/25/20 17:52	06/26/20 14:17	1
Selenium	<0.0025		0.0025		mg/L		06/25/20 17:52	06/26/20 14:17	1

Lab Sample ID: LCS 500-549425/2-A
Matrix: Water
Analysis Batch: 549752

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 549425

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0946		mg/L		95	80 - 120
Barium	2.00	1.93		mg/L		96	80 - 120
Boron	1.00	0.988		mg/L		99	80 - 120
Calcium	10.0	10.1		mg/L		101	80 - 120
Cobalt	0.500	0.506		mg/L		101	80 - 120
Lead	0.100	0.106		mg/L		106	80 - 120
Molybdenum	1.00	0.963		mg/L		96	80 - 120
Selenium	0.100	0.0993		mg/L		99	80 - 120

Lab Sample ID: MB 500-550154/1-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:04	1
Barium	<0.0025		0.0025		mg/L		06/30/20 17:40	07/01/20 12:04	1
Boron	<0.050	^	0.050		mg/L		06/30/20 17:40	07/01/20 12:04	1
Calcium	<0.20		0.20		mg/L		06/30/20 17:40	07/01/20 12:04	1
Cobalt	<0.0010		0.0010		mg/L		06/30/20 17:40	07/01/20 12:04	1
Lead	<0.00050		0.00050		mg/L		06/30/20 17:40	07/01/20 12:04	1
Molybdenum	<0.0050		0.0050		mg/L		06/30/20 17:40	07/01/20 12:04	1
Selenium	<0.0025		0.0025		mg/L		06/30/20 17:40	07/01/20 12:04	1

Lab Sample ID: MB 500-550154/1-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		06/30/20 17:40	07/02/20 12:59	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-550154/2-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0940		mg/L		94	80 - 120
Barium	2.00	1.95		mg/L		97	80 - 120
Calcium	10.0	9.82		mg/L		98	80 - 120
Cobalt	0.500	0.511		mg/L		102	80 - 120
Lead	0.100	0.107		mg/L		107	80 - 120
Molybdenum	1.00	0.981		mg/L		98	80 - 120
Selenium	0.100	0.0985		mg/L		99	80 - 120

Lab Sample ID: LCS 500-550154/2-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.05		mg/L		105	80 - 120

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550542

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.037		0.100	0.133		mg/L		96	75 - 125
Barium	0.015		2.00	1.95		mg/L		97	75 - 125
Calcium	16		10.0	23.6		mg/L		81	75 - 125
Cobalt	<0.0010		0.500	0.489		mg/L		98	75 - 125
Lead	<0.00050		0.100	0.102		mg/L		102	75 - 125
Molybdenum	0.46		1.00	1.42		mg/L		96	75 - 125
Selenium	0.0040		0.100	0.107		mg/L		103	75 - 125

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550587

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	5.2		1.00	6.44	4	mg/L		122	75 - 125

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550542

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.037		0.100	0.134		mg/L		97	75 - 125	1	20
Barium	0.015		2.00	1.97		mg/L		98	75 - 125	1	20
Calcium	16		10.0	23.2		mg/L		77	75 - 125	2	20
Cobalt	<0.0010		0.500	0.491		mg/L		98	75 - 125	1	20
Lead	<0.00050		0.100	0.103		mg/L		103	75 - 125	1	20
Molybdenum	0.46		1.00	1.43		mg/L		97	75 - 125	1	20
Selenium	0.0040		0.100	0.109		mg/L		105	75 - 125	1	20

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550587

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	5.2		1.00	6.36	4	mg/L		114	75 - 125	1	20

Lab Sample ID: 500-183935-19 DU
Matrix: Water
Analysis Batch: 550542

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.037		0.0338		mg/L		8	20
Barium	0.015		0.0136		mg/L		10	20
Calcium	16		14.4		mg/L		8	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.46		0.415		mg/L		9	20
Selenium	0.0040		0.00341		mg/L		16	20

Lab Sample ID: 500-183935-19 DU
Matrix: Water
Analysis Batch: 550587

Client Sample ID: G47S
Prep Type: Total Recoverable
Prep Batch: 550154

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	5.2		5.34		mg/L		2	20

Lab Sample ID: MB 500-550246/1-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:11	1
Barium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:11	1
Calcium	<0.20		0.20		mg/L		07/01/20 06:35	07/01/20 13:11	1
Cobalt	<0.0010		0.0010		mg/L		07/01/20 06:35	07/01/20 13:11	1
Lead	<0.00050		0.00050		mg/L		07/01/20 06:35	07/01/20 13:11	1
Molybdenum	<0.0050		0.0050		mg/L		07/01/20 06:35	07/01/20 13:11	1
Selenium	<0.0025		0.0025		mg/L		07/01/20 06:35	07/01/20 13:11	1

Lab Sample ID: MB 500-550246/1-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		07/01/20 06:35	07/02/20 12:14	1

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0944		mg/L		94	80 - 120
Barium	2.00	1.92		mg/L		96	80 - 120
Calcium	10.0	9.94		mg/L		99	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.500	0.505		mg/L		101	80 - 120
Lead	0.100	0.105		mg/L		105	80 - 120
Molybdenum	1.00	0.983		mg/L		98	80 - 120
Selenium	0.100	0.0994		mg/L		99	80 - 120

Lab Sample ID: LCS 500-550246/2-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.04		mg/L		104	80 - 120

Lab Sample ID: LCSD 500-550246/3-A
Matrix: Water
Analysis Batch: 550542

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.100	0.0976		mg/L		98	80 - 120	3	20
Barium	2.00	2.00		mg/L		100	80 - 120	4	20
Calcium	10.0	10.1		mg/L		101	80 - 120	2	20
Cobalt	0.500	0.524		mg/L		105	80 - 120	4	20
Lead	0.100	0.109		mg/L		109	80 - 120	3	20
Molybdenum	1.00	1.02		mg/L		102	80 - 120	4	20
Selenium	0.100	0.103		mg/L		103	80 - 120	3	20

Lab Sample ID: LCSD 500-550246/3-A
Matrix: Water
Analysis Batch: 550587

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 550246

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.00	1.07		mg/L		107	80 - 120	3	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 310-283171/1
Matrix: Water
Analysis Batch: 283171

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			06/24/20 14:27	1

Lab Sample ID: LCS 310-283171/2
Matrix: Water
Analysis Batch: 283171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	972		mg/L		97	90 - 110

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: MB 310-283379/1
Matrix: Water
Analysis Batch: 283379

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			06/26/20 09:06	1

Lab Sample ID: LCS 310-283379/2
Matrix: Water
Analysis Batch: 283379

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	988		mg/L		99	90 - 110

Lab Sample ID: MB 310-283716/1
Matrix: Water
Analysis Batch: 283716

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			06/30/20 10:00	1

Lab Sample ID: LCS 310-283716/2
Matrix: Water
Analysis Batch: 283716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	984		mg/L		98	90 - 110

Lab Sample ID: MB 310-283903/1
Matrix: Water
Analysis Batch: 283903

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<30		30		mg/L			07/01/20 14:35	1

Lab Sample ID: LCS 310-283903/2
Matrix: Water
Analysis Batch: 283903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	1000	952		mg/L		95	90 - 110

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-550210/50
Matrix: Water
Analysis Batch: 550210

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/30/20 20:49	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-550210/85
Matrix: Water
Analysis Batch: 550210

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	52.2		mg/L		104	85 - 115		

Lab Sample ID: 500-183935-4 MS
Matrix: Water
Analysis Batch: 550210

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	88	F1	50.0	142		mg/L		108	75 - 125		

Lab Sample ID: 500-183935-4 MSD
Matrix: Water
Analysis Batch: 550210

Client Sample ID: T02S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	88	F1	50.0	141		mg/L		105	75 - 125	1	20

Lab Sample ID: MB 500-550220/12
Matrix: Water
Analysis Batch: 550220

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			06/30/20 22:09	1

Lab Sample ID: LCS 500-550220/13
Matrix: Water
Analysis Batch: 550220

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride			50.0	51.3		mg/L		103	85 - 115		

Lab Sample ID: 500-183935-13 MS
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	220		50.0	249	4	mg/L		68	75 - 125		

Lab Sample ID: 500-183935-13 MSD
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	220		50.0	250	4	mg/L		70	75 - 125	0	20

Lab Sample ID: 500-183935-14 MS
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	110		50.0	151		mg/L		82	75 - 125		

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: 500-183935-14 MSD
Matrix: Water
Analysis Batch: 550220

Client Sample ID: G48S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	110		50.0	155		mg/L		89	75 - 125	2	20

Lab Sample ID: MB 500-550893/145
Matrix: Water
Analysis Batch: 550893

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			07/07/20 00:22	1

Lab Sample ID: LCS 500-550893/146
Matrix: Water
Analysis Batch: 550893

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	55.7		mg/L		111	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-550744/3
Matrix: Water
Analysis Batch: 550744

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			07/03/20 11:24	1

Lab Sample ID: LCS 500-550744/4
Matrix: Water
Analysis Batch: 550744

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	10.7		mg/L		107	80 - 120

Lab Sample ID: 500-183935-1 MS
Matrix: Water
Analysis Batch: 550744

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.39		5.00	5.79		mg/L		108	75 - 125

Lab Sample ID: 500-183935-1 MSD
Matrix: Water
Analysis Batch: 550744

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.39		5.00	5.70		mg/L		106	75 - 125	2	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-549372/15
Matrix: Water
Analysis Batch: 549372

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/25/20 11:50	1

Lab Sample ID: LCS 500-549372/16
Matrix: Water
Analysis Batch: 549372

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	20.3		mg/L		101	80 - 120

Lab Sample ID: MB 500-550123/15
Matrix: Water
Analysis Batch: 550123

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/30/20 12:52	1

Lab Sample ID: LCS 500-550123/16
Matrix: Water
Analysis Batch: 550123

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.7		mg/L		98	80 - 120

Lab Sample ID: 500-183935-7 MS
Matrix: Water
Analysis Batch: 550123

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	63		20.0	82.2		mg/L		94	75 - 125

Lab Sample ID: 500-183935-7 MSD
Matrix: Water
Analysis Batch: 550123

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	63		20.0	82.7		mg/L		97	75 - 125	1	20

Lab Sample ID: MB 500-550142/15
Matrix: Water
Analysis Batch: 550142

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			06/30/20 15:23	1

Lab Sample ID: LCS 500-550142/16
Matrix: Water
Analysis Batch: 550142

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	19.9		mg/L		100	80 - 120

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: 500-183935-19 MS
Matrix: Water
Analysis Batch: 550142

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	440	F1	20.0	449	4	mg/L		52	75 - 125		

Lab Sample ID: 500-183935-19 MSD
Matrix: Water
Analysis Batch: 550142

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	440	F1	20.0	450	4	mg/L		54	75 - 125	0	20

Chain of Custody Record 457910

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: _____ TAL-8210

Client Contact	Project Manager:	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	**Analysis Turnaround Time**			Sampler:
City/State/Zip:	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, F, Cl, SO4	Total Metals As, B, Ca, Pb, Li, Mo, S	Sample Specific Notes:
TO9S	06/22/20	1008		W	5			/	/	/	/	/	
TO6S	06/22/20	1148		W	5			/	/	/	/	/	
TO5S	06/22/20	1337		W	5			/	/	/	/	/	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 9.1 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL 1540	06/22/20			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by Laboratory by:	Company:	Date/Time:
				TA-CHI	6/22/20 1540

Chain of Custody Record 457911

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Pb, Li, Mo, S, Ca, Co

TAL-8210

Client Contact	Project Manager: Jodie Bracken	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
PO #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals As, Ba, Cd, Co, Li, Mo, S	Sample Specific Notes:
4 TO28	06/23/20	0924		W	5			✓	✓	✓	✓	✓	
5 TOAJ	06/23/20	1151		W	5			✓	✓	✓	✓	✓	
6 TO3J	06/23/20	1353		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 8.5 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: TAL	Date/Time: 06/22/20 1510	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Shawn Scott	Company: TA-CHI	Date/Time: 06/23/20 1510

Chain of Custody Record

457912

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Ca, Pb, Li, Mo, S

TAL-8210

Client Contact	Project Manager: Jodie Bracken	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			500-183935

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226+228	TDS, Fl, Cl, SO4	Total Metals As, B, Ba, Ca, Co, Li, Mo, Pb, S	Sample Specific Notes:
G205	06/24/20	1020		W	5			1	1	1	1	1	
G335	06/24/20	1354		W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

6.6

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TMI	06/24/20 @ 1520			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Ann Scott	TA-Ark	6/24/20 1520

Chain of Custody Record 457913

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: 2Li, Mo, Sb

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226+228	TDS, Fl, Cl, SO4	Total Metals Al, B, Ba, Co, Li, Mo, Sb	Sample Specific Notes:
9 TOIS	06/25/20	0917		W	5			-	-	-	-	-	
10 G30S	06/25/20	1303		W	5			-	-	-	-	-	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 7.1 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	06/25/20 1510			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 6/25/20 1510

Chain of Custody Record 457914

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Diana Mackler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
PO #	☐ 1 day			

500-183935 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals Ba, B, Ca, Co, Mo, Li, Mn, S	Sample Specific Notes:
11	T045	06/26/20	0915		—									Unable to access well due to excavation
12	R085	06/26/20	0940		W	5			✓	✓	✓	✓	✓	
13	G455	06/26/20	1051		W	5			✓	✓	✓	✓	✓	
14	G485	06/26/20	1240		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.1 Corr'd:_____ Therm ID No.:_____

	Company	Date/Time		Company	Date/Time
Relinquished by:	TAL	1430 06/26/20	Received by:		
Relinquished by:			Received by:		
Relinquished by:			Received in Laboratory by: Ellen Krotz	TA-CHI	6/26/20 1430

Chain of Custody Record 457915

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: PA Li Mo, S

TAL-8210

Client Contact	Project Manager: Diany Mackler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 CW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals As, B, Ba, Co,
15 G46S	06/29/20	0937		W	5			✓	✓	✓	✓	✓
16 G44S	06/29/20	1051		W	5			✓	✓	✓	✓	✓
17 R32S	06/29/20	1314		W	5			✓	✓	✓	✓	✓
18 R32S DUP	06/29/20	1314		W	5			✓	✓	✓	✓	✓

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 6.7 Corr'd: 6.7 | Therm ID No.: _____

Relinquished by:	Company: TAL	Date/Time: 06/29/20 1430	Received by:	Company: TA	Date/Time: 06/29/20 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 457916

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: _____

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2820 GU	☐ 2 days			Job / SDG No.: 500 - 183935
P O #	☐ 1 day		500-183935 COC	

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals: As, B, Ba, Ca, Fe, Pb, Mg, Mn, Se, Tl	Sample Specific Notes:
19	G47S	06/30/20	0930		GW	5			-	-	-	-	-	
20	G31S	06/30/20	1103		W	5			-	-	-	-	-	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 9.5 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TAL	06/30/20 1220	[signature]		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL	Date/Time: 6/30/20 1220

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136584.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/14/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T02S (500-183935-4)	6/23/20	09:24 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T08S (500-183935-5)	6/23/20	11:51 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-183935-6)	6/23/20	13:53 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/23/20 1630	TA-CHI	FE		
2	FE			Jan Byk	6/24/20 08:42	ETASTL
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136576.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/20/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T09S (500-183935-1)	6/22/20	10:08 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T06S (500-183935-2)	6/22/20	11:48 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T05S (500-183935-3)	6/22/20	13:37 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/23/20 1630	TA-CHI	FE		
2	FE					
3					6/24/20 08:42	ETASTL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: ETA Chicago

City/State: CITY University Park STATE IL

Project: Joliet #9 (Quarry) CCR

Receipt Information

Date/Time Received: DATE 6/24/20 TIME 1025

Received By: JR

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes:* Cooler ID:	H-16
Multiple Coolers?	☐ Yes ☒ No	*If yes:* Cooler # _____ of _____	
Cooler Custody Seals Present?	☒ Yes ☐ No	*If yes:* Cooler custody seals intact?	☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☒ No	*If yes:* Sample custody seals intact?	☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☒ No	*If yes:* Which VOA samples are in cooler? ↓	

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: J

Correction Factor (°C): +0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):

Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	plastic, 250ml, NT	
Uncorrected Temp (°C):	0.1	
Corrected Temp (°C):	0.2	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136563.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T09S (500-183935-1)	6/22/20	10:08 Central		Water			X	1	
T06S (500-183935-2)	6/22/20	11:48 Central		Water			X	1	
T05S (500-183935-3)	6/22/20	13:37 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/23/20 1630	TA-CHI		6/24/20 1025	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136583.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T02S (500-183935-4)	6/23/20	09:24 Central		Water			X	1	
T08S (500-183935-5)	6/23/20	11:51 Central		Water			X	1	
T03S (500-183935-6)	6/23/20	13:53 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/23/20 1630	TA-CHI		6/24/20 1025	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Test America Chicago

City/State: CITY University Park STATE IL

Project: NRG Midwest Generation

Receipt Information

Date/Time Received: DATE 6/25/20 TIME 0950

Received By: CC

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID: —
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: M

Correction Factor (°C): 0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):

Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	1L Plastic	250mL Plastic
Uncorrected Temp (°C):	1.1	0.7
Corrected Temp (°C):	1.2	0.8

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136645.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G20S (500-183935-7)	6/24/20	10:20 Central		Water			X	1	
G33S (500-183935-8)	6/24/20	13:54 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/24/20 1700	TA-CHI		6/25/20 0956	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: ETA Chicago

City/State: CITY STATE

Project: NRG Midwest Generation LSQ

Receipt Information

Date/Time Received: DATE 6/26/20 TIME 0955

Received By: EAM

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: N

Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):

Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	184090-1	
Uncorrected Temp (°C):	+1.5	
Corrected Temp (°C):	+1.5	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136673.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
T01S (500-183935-9)	6/25/20	09:17 Central		Water			X	1	
G30S (500-183935-10)	6/25/20	13:03 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/25/20 1630	TAL-CHI	[signature]	6/26/2020 0950	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: TTA Chicago

City/State: CITY University Park STATE FL | Project:

Receipt Information

Date/Time Received: DATE 6-27-20 TIME 0910 | Received By: ER

Delivery Type: ☐ UPS ☒ FedEx SAT ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☒ No *If yes:* Cooler # ____ of ____

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☒ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: P | Correction Factor (°C): +0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): | Corrected Temp (°C):

• Sample Container Temperature

Container(s) used:	CONTAINER 1	CONTAINER 2
	plastic 250 mL	
Uncorrected Temp (°C):	0.1	
Corrected Temp (°C):	0.2	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136707.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/9/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
R08S (500-183935-12)	6/26/20	09:40 Central		Water			X	1	
G45S (500-183935-13)	6/26/20	10:51 Central		Water			X	1	
G48S (500-183935-14)	6/26/20	12:40 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/26/20 1600	TA-CHI	[signature]	6-27-20 0800	ENO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperatur

Client Information

Client: TA Chicago

City/State: CITY University Park STATE IL | Project: NRG Midwest Generation

Receipt Information

Date/Time Received: DATE 01/30/20 TIME 1100 | Received By: JJ

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: M | Correction Factor (°C): -0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): | Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	PC250NT	
Uncorrected Temp (°C):	0.4	
Corrected Temp (°C):	0.5	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136786.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/2/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G46S (500-183935-15)	6/29/20	09:37 Central		Water			X	1	
G44S (500-183935-16)	6/29/20	10:51 Central		Water			X	1	
R32S (500-183935-17)	6/29/20	13:14 Central		Water			X	1	
R32S DUP (500-183935-18)	6/29/20	13:14 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:
Empty Kit Relinquished by:	Date: Time: Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	6/29/20 1500	TA-CHI	[signature]	6/30/20 1100	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

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500-183935 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: TA Chicago

City/State: CITY University Park STATE IL

Project: NRG Midwest Generating LLC

Receipt Information

Date/Time Received: DATE 7/1/20 TIME 1055

Received By: JJ

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☒ Yes	☐ No	*If yes:* Cooler custody seals intact? ☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: M

Correction Factor (°C): +0.1

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C):	Corrected Temp (°C):

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:	PLTLTNT	
Uncorrected Temp (°C):	0.7	
Corrected Temp (°C):	0.8	

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136825.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 3019 Venture Way, ,	Due Date Requested: 7/7/2020			
City: Cedar Falls	TAT Requested (days):			
State, Zip: IA, 50613				
Phone: 319-277-2401(Tel) 319-277-2425(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2540C_Calcd/ Total Dissolved Solids	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
G47S (500-183935-19)	6/30/20	09:30 Central		Water			X	1	
G31S (500-183935-20)	6/30/20	11:03 Central		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Stephanie Hernandez	6/30/20 1630	TA-CHI		7/1/20 1055	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	9.1,8.5,6.6,7.1,9.1,6.7,9.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 2
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/24/20 12:14 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 4
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/25/20 11:24 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 6
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/26/20 12:18 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 8
Creator: Homolar, Dana J

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/29/20 07:20 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 9
Creator: Johnson, Josie A

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 06/30/20 02:09 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-1

Login Number: 183935
List Number: 11
Creator: Homolar, Dana J

List Source: Eurofins TestAmerica, Cedar Falls
List Creation: 07/01/20 11:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Received project as a subcontract.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T09S
Date Collected: 06/22/20 10:08
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 09:50	JEF	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549124	06/23/20 14:30	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 20:55	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:33	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:56	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/22/20 10:08	JVB	TAL CHI

Client Sample ID: T06S
Date Collected: 06/22/20 11:48
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 09:54	JEF	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549124	06/23/20 14:32	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550210	06/30/20 20:56	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:41	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	549372	06/25/20 11:57	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/22/20 11:48	JVB	TAL CHI

Client Sample ID: T05S
Date Collected: 06/22/20 13:37
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 09:58	JEF	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549124	06/23/20 14:34	FXG	TAL CHI
Total Recoverable	Prep	3005A			548849	06/23/20 07:09	LMN	TAL CHI
Total Recoverable	Analysis	6020A		100	549354	06/24/20 11:37	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:44	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:57	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/22/20 13:37	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T02S

Lab Sample ID: 500-183935-4

Date Collected: 06/23/20 09:24

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:10	JEF	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549550	06/25/20 12:11	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549354	06/24/20 13:48	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	549609	06/26/20 10:17	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:47	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:57	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/23/20 09:24	JVB	TAL CHI

Client Sample ID: T08S

Lab Sample ID: 500-183935-5

Date Collected: 06/23/20 11:51

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:14	JEF	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549550	06/25/20 12:12	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549354	06/24/20 13:52	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	549609	06/26/20 10:20	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:50	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:58	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/23/20 11:51	JVB	TAL CHI

Client Sample ID: T03S

Lab Sample ID: 500-183935-6

Date Collected: 06/23/20 13:53

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:43	JEF	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549550	06/25/20 12:28	FXG	TAL CHI
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549354	06/24/20 14:10	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T03S

Lab Sample ID: 500-183935-6

Date Collected: 06/23/20 13:53

Matrix: Water

Date Received: 06/23/20 15:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			548978	06/23/20 17:50	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	549609	06/26/20 10:39	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283171	06/24/20 14:27	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:04	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 11:53	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	549372	06/25/20 11:58	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/23/20 13:53	JVB	TAL CHI

Client Sample ID: G20S

Lab Sample ID: 500-183935-7

Date Collected: 06/24/20 10:20

Matrix: Water

Date Received: 06/24/20 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:55	JEF	TAL CHI
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 13:55	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283379	06/26/20 09:06	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550210	06/30/20 21:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:09	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 12:53	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/24/20 10:20	JVB	TAL CHI

Client Sample ID: G33S

Lab Sample ID: 500-183935-8

Date Collected: 06/24/20 13:54

Matrix: Water

Date Received: 06/24/20 15:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 10:59	JEF	TAL CHI
Total Recoverable	Prep	3005A			549276	06/25/20 06:38	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 13:59	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283379	06/26/20 09:06	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550210	06/30/20 21:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:12	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 12:54	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/24/20 13:54	JVB	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: T01S
Date Collected: 06/25/20 09:17
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 11:11	JEF	TAL CHI
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 15:36	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:16	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 12:54	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/25/20 09:17	JVB	TAL CHI

Client Sample ID: G30S
Date Collected: 06/25/20 13:03
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	549617	06/26/20 11:15	JEF	TAL CHI
Total Recoverable	Prep	3005A			549425	06/25/20 17:52	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	549752	06/26/20 15:39	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:19	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 12:54	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/25/20 13:03	JVB	TAL CHI

Client Sample ID: T04S
Date Collected: 06/26/20 09:15
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 09:15	JVB	TAL CHI

Client Sample ID: R08S
Date Collected: 06/26/20 09:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:08	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:25	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R08S

Lab Sample ID: 500-183935-12

Date Collected: 06/26/20 09:40
Matrix: Water
Date Received: 06/26/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		5	550210	06/30/20 21:08	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:22	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 12:55	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 09:40	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-183935-13

Date Collected: 06/26/20 10:51
Matrix: Water
Date Received: 06/26/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:12	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:30	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550587	07/02/20 12:29	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:41	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:25	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 12:55	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 10:51	JVB	TAL CHI

Client Sample ID: G48S

Lab Sample ID: 500-183935-14

Date Collected: 06/26/20 12:40
Matrix: Water
Date Received: 06/26/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:16	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:33	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:33	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283716	06/30/20 10:00	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:30	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:26	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/26/20 12:40	JVB	TAL CHI

Client Sample ID: G46S

Lab Sample ID: 500-183935-15

Date Collected: 06/29/20 09:37

Matrix: Water

Date Received: 06/29/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:20	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:37	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		100	550587	07/02/20 12:37	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		25	550893	07/07/20 00:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:33	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:26	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 09:37	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-183935-16

Date Collected: 06/29/20 10:51

Matrix: Water

Date Received: 06/29/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:24	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:41	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		5	550587	07/02/20 12:40	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		1	550220	06/30/20 22:20	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:36	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	550123	06/30/20 13:27	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 10:51	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-183935-17

Date Collected: 06/29/20 13:14

Matrix: Water

Date Received: 06/29/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:29	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:44	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:44	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:39	MS	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: R32S
Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:27	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 13:14	JVB	TAL CHI

Client Sample ID: R32S DUP
Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	550449	07/01/20 23:33	EEN	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 13:48	FXG	TAL CHI
Total Recoverable	Prep	3005A			550246	07/01/20 06:35	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 12:48	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:52	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550123	06/30/20 13:27	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/29/20 13:14	JVB	TAL CHI

Client Sample ID: G47S
Date Collected: 06/30/20 09:30
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	550354	07/01/20 12:01	JEF	TAL CHI
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 12:11	FXG	TAL CHI
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 13:06	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:46	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 12:57	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550142	06/30/20 15:24	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/30/20 09:30	JVB	TAL CHI

Client Sample ID: G31S
Date Collected: 06/30/20 11:03
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	550354	07/01/20 12:21	JEF	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-1

Client Sample ID: G31S

Date Collected: 06/30/20 11:03
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	550542	07/01/20 12:30	FXG	TAL CHI
Total Recoverable	Prep	3005A			550154	06/30/20 17:40	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	550587	07/02/20 13:25	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	283903	07/01/20 14:35	SAS	TAL CF
Total/NA	Analysis	SM 4500 Cl- E		5	550220	06/30/20 23:47	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	550744	07/03/20 13:00	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	550142	06/30/20 15:25	RES	TAL CHI
Total/NA	Analysis	Field Sampling		1	550377	06/30/20 11:03	JVB	TAL CHI

Laboratory References:

TAL CF = Eurofins TestAmerica, Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-183935-2
Client Project/Site: Joliet #9 (Quarry) CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Diana Mockler

Authorized for release by:
7/30/2020 5:59:55 PM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-183935-2

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-183935-2

Comments
No additional comments.

Receipt
The samples were received on 6/22/2020 3:40 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 7 coolers at receipt time were 6.6º C, 6.7º C, 7.1º C, 8.5º C, 9.1º C, 9.1º C and 9.5º C.

RAD
Methods 903.0, 9315: Radium 226 Prep Batch 160-474500:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

T09S (500-183935-1), T06S (500-183935-2), T05S (500-183935-3), T08S (500-183935-5), T03S (500-183935-6), (LCS 160-474500/1-A), (MB 160-474500/14-A) and (500-183935-F-1-A DU)

Methods 903.0, 9315: Radium 226 Prep Batch 160-474655:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

G20S (500-183935-7), G33S (500-183935-8), (LCS 160-474655/1-A), (MB 160-474655/7-A) and (500-183935-E-7-A DU)

Method 903.0: Radium-226 Prep Batch 160-475087:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

G46S (500-183935-15), G44S (500-183935-16), R32S (500-183935-17), R32S DUP (500-183935-18), G47S (500-183935-19), G31S (500-183935-20), (LCS 160-475087/1-A), (MB 160-475087/21-A), (600-207409-A-27-A), (600-207409-A-27-B MS) and (600-207409-A-27-C MSD)

Method 903.0: Radium-226 Prep Batch 160-475087:

This following job has a method comment stating QC is required for these sample. The samples were prepped in a batch that contained a MS/MSD on a different job within the batch. Per client approval, the samples were reported with this narrative.

G46S (500-183935-15), G44S (500-183935-16), R32S (500-183935-17), R32S DUP (500-183935-18), G47S (500-183935-19) and G31S (500-183935-20)

Method 903.0: Radium-226 Prep Batch 160-475087:

The radium-226 matrix spike/matrix spike duplicate (MS/MSD) is recovering (9% and 8%, respectively) outside of the control limits of (75-138%). Sample non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The data have been reported with this narrative.

Job ID: 500-183935-2 (Continued)

Laboratory: Eurofins TestAmerica, Chicago (Continued)

G46S (500-183935-15), G44S (500-183935-16), R32S (500-183935-17), R32S DUP (500-183935-18), G47S (500-183935-19), G31S (500-183935-20), (LCS 160-475087/1-A), (MB 160-475087/21-A), (600-207409-A-27-A), (600-207409-A-27-B MS) and (600-207409-A-27-C MSD)

Method 903.0: Radium-226 Prep Batch 160-474991:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

T02S (500-183935-4), T01S (500-183935-9), G30S (500-183935-10), R08S (500-183935-12), G45S (500-183935-13), G48S (500-183935-14), (LCS 160-474991/1-A), (MB 160-474991/17-A) and (500-183935-E-4-A DU)

Methods 904.0, 9320: Radium-228 Prep Batch 160-474502:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

T09S (500-183935-1), T05S (500-183935-3), T08S (500-183935-5), (LCS 160-474502/1-A), (MB 160-474502/14-A) and (500-183935-F-1-B DU)

Methods 904.0, 9320: Radium-228 Prep Batch 160-474502:

The method blank (MB) has R-228 activity above the MDC and RL. The following associated samples are (choose one: non-detect for the contaminant therefore, re-analysis is not required. The data have been reported.

T09S (500-183935-1), T05S (500-183935-3), T08S (500-183935-5), (LCS 160-474502/1-A), (MB 160-474502/14-A) and (500-183935-F-1-B DU)

Method 904.0: Radium-228 Prep Batch 160-474502:

The following sample did not meet the requested limit (RL) due to the reduced sample volume attributed to the presence of matrix interferences (see prep NCM 160-198239). The data have been reported with this narrative.

T05S (500-183935-3)

Methods 904.0, 9320: Ra-228 Prep Batch 160-474656

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

G20S (500-183935-7), G33S (500-183935-8), (LCS 160-474656/1-A), (MB 160-474656/7-A) and (500-183935-E-7-B DU)

Method 904.0: Ra-228 Prep Batch 160-475089:

The following samples contained a method comment stating QC is required for these samples. However, QC was performed on a different client job within the batch. Per client approval, the results are reported with this narrative.

Job ID: 500-183935-2 (Continued)

Laboratory: Eurofins TestAmerica, Chicago (Continued)

G46S (500-183935-15), G44S (500-183935-16), R32S (500-183935-17), R32S DUP (500-183935-18), G47S (500-183935-19) and G31S (500-183935-20)

Method 904.0: Radium 228 Prep Batch 160-475089:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

G46S (500-183935-15), G44S (500-183935-16), R32S (500-183935-17), R32S DUP (500-183935-18), G47S (500-183935-19), G31S (500-183935-20), (LCS 160-475089/1-A), (MB 160-475089/21-A), (600-207409-A-27-D), (600-207409-A-27-E MS) and (600-207409-A-27-F MSD)

Method 904.0: Radium 228 Prep Batch 160-475089:

The radium-228 matrix spike/matrix spike duplicate (MS/MSD) is recovering (23% and 14% respectively) outside of the control limits of (45-150%). Sample non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits. The data have been reported with this narrative.

Method 904.0: Radium-228 Prep Batch 160-474994:

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

T06S (500-183935-2), T02S (500-183935-4), T03S (500-183935-6), T01S (500-183935-9), G30S (500-183935-10), R08S (500-183935-12), G45S (500-183935-13), G48S (500-183935-14), (LCS 160-474994/1-A), (MB 160-474994/17-A) and (500-183935-E-4-B DU)

Method PrecSep_0: Radium 228 Prep Batch 160-474502

The following samples were prepared at a reduced aliquot due to brown, cloudy discoloration: T05S (500-183935-3).

Method PrecSep_0: Radium 228 Prep Batch 160-474994:
Sample 500-183935-3 was reduced due to brown discoloration. Samples 500-183935-4, 4DU, and 9 were reduced due to a slightly cloudy appearance: T05S (500-183935-3), T02S (500-183935-4), T01S (500-183935-9) and (500-183935-E-4 DU)

Method PrecSep_0: Radium-228 Prep Batch 160-475952:
Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: T06S (500-183935-2) and T03S (500-183935-6). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-474500

The following samples were prepared at a reduced aliquot due to brown, cloudy coloring :T05S (500-183935-3).

Method PrecSep-21: Radium 226 Prep Batch 160-474991:
Sample 500-183935-3 was reduced due to brown discoloration. Samples 500-183935-4, 4DU, and 9 were reduced due to a slightly cloudy appearance: T05S (500-183935-3), T02S (500-183935-4), T01S (500-183935-9) and (500-183935-E-4 DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	TAL SL
904.0	Radium-228 (GFPC)	EPA	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-183935-1	T09S	Water	06/22/20 10:08	06/22/20 15:40	
500-183935-2	T06S	Water	06/22/20 11:48	06/22/20 15:40	
500-183935-3	T05S	Water	06/22/20 13:37	06/22/20 15:40	
500-183935-4	T02S	Water	06/23/20 09:24	06/23/20 15:10	
500-183935-5	T08S	Water	06/23/20 11:51	06/23/20 15:10	
500-183935-6	T03S	Water	06/23/20 13:53	06/23/20 15:10	
500-183935-7	G20S	Water	06/24/20 10:20	06/24/20 15:20	
500-183935-8	G33S	Water	06/24/20 13:54	06/24/20 15:20	
500-183935-9	T01S	Water	06/25/20 09:17	06/25/20 15:10	
500-183935-10	G30S	Water	06/25/20 13:03	06/25/20 15:10	
500-183935-12	R08S	Water	06/26/20 09:40	06/26/20 14:30	
500-183935-13	G45S	Water	06/26/20 10:51	06/26/20 14:30	
500-183935-14	G48S	Water	06/26/20 12:40	06/26/20 14:30	
500-183935-15	G46S	Water	06/29/20 09:37	06/29/20 14:30	
500-183935-16	G44S	Water	06/29/20 10:51	06/29/20 14:30	
500-183935-17	R32S	Water	06/29/20 13:14	06/29/20 14:30	
500-183935-18	R32S DUP	Water	06/29/20 13:14	06/29/20 14:30	
500-183935-19	G47S	Water	06/30/20 09:30	06/30/20 12:20	
500-183935-20	G31S	Water	06/30/20 11:03	06/30/20 12:20	

Client Sample ID: T09S

Date Collected: 06/22/20 10:08
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-1

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.76**		0.222	0.273	1.00	0.0712	pCi/L	06/25/20 12:11	07/17/20 08:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*40 - 110*	*06/25/20 12:11*	*07/17/20 08:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.27**		0.363	0.381	1.00	0.475	pCi/L	06/25/20 12:37	07/07/20 09:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:11*	*1*
Y Carrier	*76.6*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:11*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**3.04**		0.426	0.469	5.00	0.475	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T06S

Date Collected: 06/22/20 11:48
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-2

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**1.19**		0.190	0.218	1.00	0.0932	pCi/L	06/25/20 12:11	07/17/20 08:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.2*		*40 - 110*	*06/25/20 12:11*	*07/17/20 08:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.478	U	0.345	0.348	1.00	0.545	pCi/L	06/30/20 15:54	07/28/20 12:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.1*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*
Y Carrier	*83.4*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.66**		0.394	0.411	5.00	0.545	pCi/L		07/30/20 08:51	1

Client Sample ID: T05S

Date Collected: 06/22/20 13:37
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-3

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.201**		0.134	0.135	1.00	0.182	pCi/L	06/25/20 12:11	07/17/20 08:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*62.8*		*40 - 110*	*06/25/20 12:11*	*07/17/20 08:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.480	U G	0.608	0.609	1.00	1.01	pCi/L	06/25/20 12:37	07/07/20 09:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*62.8*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:11*	*1*
Y Carrier	*66.9*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:11*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.681	U	0.623	0.624	5.00	1.01	pCi/L		07/30/20 08:51	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T02S

Date Collected: 06/23/20 09:24
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-4

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.768		0.330	0.337	1.00	0.375	pCi/L	06/30/20 15:34	07/29/20 07:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*06/30/20 15:34*	*07/29/20 07:39*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.30		0.518	0.531	1.00	0.749	pCi/L	06/30/20 15:54	07/28/20 12:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.8*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*
Y Carrier	*83.4*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.07		0.614	0.629	5.00	0.749	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T08S

Date Collected: 06/23/20 11:51
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-5

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.290**		0.111	0.114	1.00	0.124	pCi/L	06/25/20 12:11	07/17/20 08:15	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*40 - 110*	*06/25/20 12:11*	*07/17/20 08:15*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.331	U	0.278	0.279	1.00	0.442	pCi/L	06/25/20 12:37	07/07/20 09:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.6*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:12*	*1*
Y Carrier	*77.0*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.620**		0.299	0.301	5.00	0.442	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T03S

Date Collected: 06/23/20 13:53
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-6

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.731		0.146	0.160	1.00	0.0751	pCi/L	06/25/20 12:11	07/17/20 08:17	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.6*		*40 - 110*	*06/25/20 12:11*	*07/17/20 08:17*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.915		0.388	0.397	1.00	0.556	pCi/L	06/30/20 15:54	07/28/20 12:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.2*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*
Y Carrier	*81.5*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.65		0.415	0.428	5.00	0.556	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G20S

Date Collected: 06/24/20 10:20
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-7

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.10		0.235	0.255	1.00	0.148	pCi/L	06/26/20 10:59	07/20/20 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*06/26/20 10:59*	*07/20/20 14:32*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.971		0.338	0.350	1.00	0.464	pCi/L	06/26/20 11:16	07/17/20 14:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.6*		*40 - 110*	*06/26/20 11:16*	*07/17/20 14:38*	*1*
Y Carrier	*86.0*		*40 - 110*	*06/26/20 11:16*	*07/17/20 14:38*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.07		0.412	0.433	5.00	0.464	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G33S

Date Collected: 06/24/20 13:54
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-8

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.494		0.247	0.251	1.00	0.313	pCi/L	06/26/20 10:59	07/20/20 14:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*49.1*		*40 - 110*	*06/26/20 10:59*	*07/20/20 14:32*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0916	U	0.432	0.432	1.00	0.787	pCi/L	06/26/20 11:16	07/17/20 14:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*49.1*		*40 - 110*	*06/26/20 11:16*	*07/17/20 14:39*	*1*
Y Carrier	*83.0*		*40 - 110*	*06/26/20 11:16*	*07/17/20 14:39*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.403	U	0.498	0.500	5.00	0.787	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T01S

Date Collected: 06/25/20 09:17
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-9

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.01		0.334	0.346	1.00	0.263	pCi/L	06/30/20 15:34	07/29/20 07:40	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*06/30/20 15:34*	*07/29/20 07:40*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.890		0.497	0.503	1.00	0.757	pCi/L	06/30/20 15:54	07/28/20 12:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*
Y Carrier	*80.4*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.90		0.599	0.611	5.00	0.757	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G30S

Date Collected: 06/25/20 13:03
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-10

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.846		0.260	0.271	1.00	0.214	pCi/L	06/30/20 15:34	07/29/20 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*06/30/20 15:34*	*07/29/20 07:41*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.34		0.399	0.417	1.00	0.535	pCi/L	06/30/20 15:54	07/28/20 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*
Y Carrier	*83.4*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.19		0.476	0.497	5.00	0.535	pCi/L		07/30/20 08:51	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: R08S

Date Collected: 06/26/20 09:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-12

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.837		0.265	0.276	1.00	0.208	pCi/L	06/30/20 15:34	07/29/20 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*06/30/20 15:34*	*07/29/20 07:41*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.846		0.387	0.395	1.00	0.570	pCi/L	06/30/20 15:54	07/28/20 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*
Y Carrier	*80.0*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.68		0.469	0.482	5.00	0.570	pCi/L		07/30/20 08:50	1

Client Sample ID: G45S

Date Collected: 06/26/20 10:51
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-13

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.04		0.390	0.431	1.00	0.186	pCi/L	06/30/20 15:34	07/29/20 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*06/30/20 15:34*	*07/29/20 07:41*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.06		0.356	0.369	1.00	0.477	pCi/L	06/30/20 15:54	07/28/20 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*
Y Carrier	*80.4*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.10		0.528	0.567	5.00	0.477	pCi/L		07/30/20 08:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G48S

Date Collected: 06/26/20 12:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-14

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.624**		0.234	0.240	1.00	0.200	pCi/L	06/30/20 15:34	07/29/20 07:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.8*		*40 - 110*	*06/30/20 15:34*	*07/29/20 07:41*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.347	U	0.325	0.327	1.00	0.525	pCi/L	06/30/20 15:54	07/28/20 12:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.8*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*
Y Carrier	*83.0*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.971**		0.400	0.406	5.00	0.525	pCi/L		07/30/20 08:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G46S
Date Collected: 06/29/20 09:37
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-15
Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.947		0.217	0.233	1.00	0.152	pCi/L	07/02/20 08:11	07/27/20 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*07/02/20 08:11*	*07/27/20 09:00*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.83		0.406	0.439	1.00	0.476	pCi/L	07/02/20 09:09	07/24/20 09:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.5*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*
Y Carrier	*72.5*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.78		0.460	0.497	5.00	0.476	pCi/L		07/30/20 08:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G44S

Date Collected: 06/29/20 10:51
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-16

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.513		0.181	0.187	1.00	0.193	pCi/L	07/02/20 08:11	07/27/20 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*07/02/20 08:11*	*07/27/20 09:00*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.35		0.399	0.418	1.00	0.528	pCi/L	07/02/20 09:09	07/24/20 09:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*
Y Carrier	*73.6*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.86		0.438	0.458	5.00	0.528	pCi/L		07/30/20 08:50	1

Client Sample ID: R32S

Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-17

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.69		0.283	0.322	1.00	0.159	pCi/L	07/02/20 08:11	07/27/20 09:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*07/02/20 08:11*	*07/27/20 09:00*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.22		0.434	0.479	1.00	0.479	pCi/L	07/02/20 09:09	07/24/20 09:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.1*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*
Y Carrier	*75.5*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.92		0.518	0.577	5.00	0.479	pCi/L		07/30/20 08:50	1

Client Sample ID: R32S DUP

Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-18

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.63		0.265	0.303	1.00	0.109	pCi/L	07/02/20 08:11	07/27/20 09:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*07/02/20 08:11*	*07/27/20 09:11*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.861		0.332	0.341	1.00	0.464	pCi/L	07/02/20 09:09	07/24/20 09:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.0*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*
Y Carrier	*73.3*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.49		0.425	0.456	5.00	0.464	pCi/L		07/30/20 08:50	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G47S

Date Collected: 06/30/20 09:30
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-19

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.441		0.144	0.150	1.00	0.110	pCi/L	07/02/20 08:11	07/27/20 09:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.1*		*40 - 110*	*07/02/20 08:11*	*07/27/20 09:11*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.797		0.308	0.316	1.00	0.426	pCi/L	07/02/20 09:09	07/24/20 09:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.1*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*
Y Carrier	*75.1*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.24		0.340	0.350	5.00	0.426	pCi/L		07/30/20 08:50	1

Client Sample ID: G31S

Date Collected: 06/30/20 11:03
Date Received: 06/30/20 12:20

Lab Sample ID: 500-183935-20

Matrix: Water

Method: 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	2.07		0.312	0.363	1.00	0.184	pCi/L	07/02/20 08:11	07/27/20 09:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*07/02/20 08:11*	*07/27/20 09:11*	*1*

Method: 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.73		0.390	0.421	1.00	0.459	pCi/L	07/02/20 09:09	07/24/20 09:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:42*	*1*
Y Carrier	*76.6*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.80		0.499	0.556	5.00	0.459	pCi/L		07/30/20 08:50	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Rad

Prep Batch: 474500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	PrecSep-21	
500-183935-2	T06S	Total/NA	Water	PrecSep-21	
500-183935-3	T05S	Total/NA	Water	PrecSep-21	
500-183935-5	T08S	Total/NA	Water	PrecSep-21	
500-183935-6	T03S	Total/NA	Water	PrecSep-21	
MB 160-474500/14-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-474500/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-183935-1 DU	T09S	Total/NA	Water	PrecSep-21	

Prep Batch: 474502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-1	T09S	Total/NA	Water	PrecSep_0	
500-183935-3	T05S	Total/NA	Water	PrecSep_0	
500-183935-5	T08S	Total/NA	Water	PrecSep_0	
MB 160-474502/14-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-474502/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-183935-1 DU	T09S	Total/NA	Water	PrecSep_0	

Prep Batch: 474655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total/NA	Water	PrecSep-21	
500-183935-8	G33S	Total/NA	Water	PrecSep-21	
MB 160-474655/7-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-474655/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-183935-7 DU	G20S	Total/NA	Water	PrecSep-21	

Prep Batch: 474656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-7	G20S	Total/NA	Water	PrecSep_0	
500-183935-8	G33S	Total/NA	Water	PrecSep_0	
MB 160-474656/7-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-474656/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-183935-7 DU	G20S	Total/NA	Water	PrecSep_0	

Prep Batch: 474991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-4	T02S	Total/NA	Water	PrecSep-21	
500-183935-9	T01S	Total/NA	Water	PrecSep-21	
500-183935-10	G30S	Total/NA	Water	PrecSep-21	
500-183935-12	R08S	Total/NA	Water	PrecSep-21	
500-183935-13	G45S	Total/NA	Water	PrecSep-21	
500-183935-14	G48S	Total/NA	Water	PrecSep-21	
MB 160-474991/17-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-474991/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-183935-4 DU	T02S	Total/NA	Water	PrecSep-21	

Prep Batch: 474994

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-2	T06S	Total/NA	Water	PrecSep_0	
500-183935-4	T02S	Total/NA	Water	PrecSep_0	
500-183935-6	T03S	Total/NA	Water	PrecSep_0	

Rad (Continued)

Prep Batch: 474994 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-9	T01S	Total/NA	Water	PrecSep_0	
500-183935-10	G30S	Total/NA	Water	PrecSep_0	
500-183935-12	R08S	Total/NA	Water	PrecSep_0	
500-183935-13	G45S	Total/NA	Water	PrecSep_0	
500-183935-14	G48S	Total/NA	Water	PrecSep_0	
MB 160-474994/17-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-474994/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-183935-4 DU	T02S	Total/NA	Water	PrecSep_0	

Prep Batch: 475087

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-15	G46S	Total/NA	Water	PrecSep-21	
500-183935-16	G44S	Total/NA	Water	PrecSep-21	
500-183935-17	R32S	Total/NA	Water	PrecSep-21	
500-183935-18	R32S DUP	Total/NA	Water	PrecSep-21	
500-183935-19	G47S	Total/NA	Water	PrecSep-21	
500-183935-20	G31S	Total/NA	Water	PrecSep-21	
MB 160-475087/21-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-475087/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 475089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-183935-15	G46S	Total/NA	Water	PrecSep_0	
500-183935-16	G44S	Total/NA	Water	PrecSep_0	
500-183935-17	R32S	Total/NA	Water	PrecSep_0	
500-183935-18	R32S DUP	Total/NA	Water	PrecSep_0	
500-183935-19	G47S	Total/NA	Water	PrecSep_0	
500-183935-20	G31S	Total/NA	Water	PrecSep_0	
MB 160-475089/21-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-475089/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-474500/14-A
Matrix: Water
Analysis Batch: 476585

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474500

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05006	U	0.0571	0.0573	1.00	0.0920	pCi/L	06/25/20 12:11	07/17/20 08:18	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*06/25/20 12:11*	*07/17/20 08:18*	*1*

Lab Sample ID: LCS 160-474500/1-A
Matrix: Water
Analysis Batch: 476585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474500

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.03		1.04	1.00	0.0681	pCi/L	88	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.1*		*40 - 110*

Lab Sample ID: 500-183935-1 DU
Matrix: Water
Analysis Batch: 476585

Client Sample ID: T09S
Prep Type: Total/NA
Prep Batch: 474500

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.76			1.809		0.284	1.00	0.109	pCi/L			0.08	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*90.1*		*40 - 110*

Lab Sample ID: MB 160-474655/7-A
Matrix: Water
Analysis Batch: 476658

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474655

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01513	U	0.0675	0.0675	1.00	0.135	pCi/L	06/26/20 10:59	07/20/20 14:33	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*06/26/20 10:59*	*07/20/20 14:33*	*1*

Lab Sample ID: LCS 160-474655/1-A
Matrix: Water
Analysis Batch: 476658

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474655

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	9.763		1.10	1.00	0.114	pCi/L	86	75 - 125		

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-474655/1-A
Matrix: Water
Analysis Batch: 476658

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474655

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	89.8		40 - 110

Lab Sample ID: 500-183935-7 DU
Matrix: Water
Analysis Batch: 476658

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 474655

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	1.10			0.9767		0.237	1.00	0.156	pCi/L			0.26	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	89.5		40 - 110

Lab Sample ID: MB 160-474991/17-A
Matrix: Water
Analysis Batch: 477682

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474991

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08815	U	0.131	0.131	1.00	0.224	pCi/L	06/30/20 15:34	07/29/20 07:42	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	96.7		40 - 110	06/30/20 15:34	07/29/20 07:42	1

Lab Sample ID: LCS 160-474991/1-A
Matrix: Water
Analysis Batch: 477682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474991

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.33		1.29	1.00	0.201	pCi/L	91	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	80.4		40 - 110

Lab Sample ID: 500-183935-4 DU
Matrix: Water
Analysis Batch: 477682

Client Sample ID: T02S
Prep Type: Total/NA
Prep Batch: 474991

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-226	0.768			0.8181		0.335	1.00	0.344	pCi/L			0.07	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	86.4		40 - 110

Method: 903.0 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-475087/21-A
Matrix: Water
Analysis Batch: 477515

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 475087

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.01154	U	0.0578	0.0578	1.00	0.119	pCi/L	07/02/20 08:11	07/27/20 11:07	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*07/02/20 08:11*	*07/27/20 11:07*	*1*

Lab Sample ID: LCS 160-475087/1-A
Matrix: Water
Analysis Batch: 477516

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 475087

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	10.12		1.14	1.00	0.165	pCi/L	89	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*87.2*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-474502/14-A
Matrix: Water
Analysis Batch: 475711

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474502

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.084		0.451	0.490	1.00	0.562	pCi/L	06/25/20 12:37	07/07/20 09:06	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.8*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:06*	*1*
Y Carrier	*75.1*		*40 - 110*	*06/25/20 12:37*	*07/07/20 09:06*	*1*

Lab Sample ID: LCS 160-474502/1-A
Matrix: Water
Analysis Batch: 475712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474502

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.3	10.34		1.19	1.00	0.420	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*97.1*		*40 - 110*
Y Carrier	*78.5*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 500-183935-1 DU
Matrix: Water
Analysis Batch: 475712

Client Sample ID: T09S
Prep Type: Total/NA
Prep Batch: 474502

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.27			1.235		0.369	1.00	0.448	pCi/L			0.05	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*90.1*		*40 - 110*
Y Carrier	*78.1*		*40 - 110*

Lab Sample ID: MB 160-474656/7-A
Matrix: Water
Analysis Batch: 476647

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474656

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.04948	U	0.269	0.269	1.00	0.485	pCi/L	06/26/20 11:16	07/17/20 14:39	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*06/26/20 11:16*	*07/17/20 14:39*	*1*
Y Carrier	*82.6*		*40 - 110*	*06/26/20 11:16*	*07/17/20 14:39*	*1*

Lab Sample ID: LCS 160-474656/1-A
Matrix: Water
Analysis Batch: 476647

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474656

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.3	10.20		1.18	1.00	0.414	pCi/L	99	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*89.8*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

Lab Sample ID: 500-183935-7 DU
Matrix: Water
Analysis Batch: 476647

Client Sample ID: G20S
Prep Type: Total/NA
Prep Batch: 474656

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	0.971			0.6571		0.292	1.00	0.412	pCi/L			0.49	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*89.5*		*40 - 110*
Y Carrier	*86.7*		*40 - 110*

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-474994/17-A
Matrix: Water
Analysis Batch: 477661

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474994

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1267	U	0.250	0.251	1.00	0.427	pCi/L	06/30/20 15:54	07/28/20 12:25	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.7*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*
Y Carrier	*83.4*		*40 - 110*	*06/30/20 15:54*	*07/28/20 12:25*	*1*

Lab Sample ID: LCS 160-474994/1-A
Matrix: Water
Analysis Batch: 477661

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474994

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.2	11.63		1.38	1.00	0.581	pCi/L	114	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*80.4*		*40 - 110*
Y Carrier	*80.0*		*40 - 110*

Lab Sample ID: 500-183935-4 DU
Matrix: Water
Analysis Batch: 477661

Client Sample ID: T02S
Prep Type: Total/NA
Prep Batch: 474994

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	1.30			1.102		0.477	1.00	0.671	pCi/L			0.20	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*86.4*		*40 - 110*
Y Carrier	*83.0*		*40 - 110*

Lab Sample ID: MB 160-475089/21-A
Matrix: Water
Analysis Batch: 477410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 475089

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6804		0.325	0.331	1.00	0.484	pCi/L	07/02/20 09:09	07/24/20 09:48	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:48*	*1*
Y Carrier	*86.4*		*40 - 110*	*07/02/20 09:09*	*07/24/20 09:48*	*1*

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-475089/1-A
Matrix: Water
Analysis Batch: 477411

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 475089

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.2	11.00		1.32	1.00	0.623	pCi/L	107	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*87.2*		*40 - 110*
Y Carrier	*73.3*		*40 - 110*

Chain of Custody Record 457910

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-8210

Client Contact	Project Manager:	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip:	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			Job / SDG No.: 500-183935
Site: 2020 GW	☐ 2 days			
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, F, Cl, SO4	Total Metals As & Ba	Sample Specific Notes:
TO9S	06/22/20	1008		W	5			1	1	1	1	1	
TO6S	06/22/20	1148		W	5			1	1	1	1	1	
TO5S	06/22/20	1337		W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 9.1 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL 1540	06/22/20			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by Laboratory by:	Company:	Date/Time:
				TA-CHI	6/22/20 1540

Chain of Custody Record 457911

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Pb, Li, Mo, S, Ca, Co

TAL-8210

Client Contact	Project Manager: Jodie Bracken	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
PO #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Lantium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals As, Ba, Cd, Co, Li, Mo, S	Sample Specific Notes:
4 TO2S	06/23/20	0924		W	5			✓	✓	✓	✓	✓	
5 TOAS	06/23/20	1151		W	5			✓	✓	✓	✓	✓	
6 TO3S	06/23/20	1353		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 8.5 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: TAL	Date/Time: 06/22/20 1510	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Shan Scott	Company: TA-CHI	Date/Time: 06/23/20 1510

Chain of Custody Record

457912

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Ca, Pb, Li, Mo, S

TAL-8210

Client Contact	Project Manager: Jodie Bracken	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			500-183935

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	Radium 226	Radium 228	Combined Ra 226+228	TDS, Fl, Cl, SO4	Total Metals As, B, Ba, Ca, Co, Li, Mo, Pb, S
G205	06/24/20	1020		W	5			1	1	1	1	1
G335	06/24/20	1354		W	5			1	1	1	1	1

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

6.6

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TMI	06/24/20 @ 1520			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Ann Scott	TA-Ark	6/24/20 1520

Chain of Custody Record 457913

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: 2Li, Mo, Sb

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
PO #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals Al, B, Ca, Fe, Li, Mo, S	Sample Specific Notes:
9 TOIS	06/25/20	0917		W	5			-	-	-	-	-	
10 G30S	06/25/20	1303		W	5			-	-	-	-	-	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.1 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	06/25/20 1510			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA-CHT	6/25/20 1510

Chain of Custody Record 457914

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Diana Mackler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 GW	☐ 2 days			Job / SDG No.: 500-183935
PO #	☐ 1 day			

500-183935 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals Ba, B, Ca, Co, Mo, Li, Mn, S	Sample Specific Notes:
11	T045	06/26/20	0915		—									Unable to access well due to excavation
12	R085	06/26/20	0940		W	5			✓	✓	✓	✓	✓	
13	G455	06/26/20	1051		W	5			✓	✓	✓	✓	✓	
14	G485	06/26/20	1240		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.1 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: TAL	Date/Time: 06/26/20 1430	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Ellen Scott	Company: TA-Oak	Date/Time: 6/26/20 1430

Chain of Custody Record 457915

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: PA Lic Mgr S

TAL-8210

Client Contact	Project Manager: Diana Mackler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2020 CW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day			

500-183935 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals As, B, Ba, Ca
15 G46S	06/29/20	0937		W	5			✓	✓	✓	✓	✓
16 G44S	06/29/20	1051		W	5			✓	✓	✓	✓	✓
17 R32S	06/29/20	1314		W	5			✓	✓	✓	✓	✓
18 R32S DUP	06/29/20	1314		W	5			✓	✓	✓	✓	✓

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 6.7 Corr'd: 6.7 | Therm ID No.: _____

Relinquished by:	Company: TAL	Date/Time: 06/29/20 1430	Received by:	Company: TA	Date/Time: 06/29/20 1430
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Chain of Custody Record 457916

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: _____

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 CCR	☐ 1 week			
Site: 2870 GW	☐ 2 days			Job / SDG No.: 500-183935
P O #	☐ 1 day		500-183935 COC	

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	TDS, Fl, Cl, SO4	Total Metals: As, B, Ba, Ca, Fe, Pb, Mg, Mn, Na, Sr, Tl
19	G47S	06/30/20	0930		GW	5			-	-	-	-	-
20	G31S	06/30/20	1103		W	5			-	-	-	-	-

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 9.5 Corr'd: _____ Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TAL	06/30/20 1220	[signature]		
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TAL	Date/Time: 6/30/20 1220

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136584.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/14/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T02S (500-183935-4)	6/23/20	09:24 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T08S (500-183935-5)	6/23/20	11:51 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T03S (500-183935-6)	6/23/20	13:53 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/23/20 1630	TA-CHI	FE		
2	FE			Jan Byk	6/24/20 08:42	ETASTL
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136576.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/20/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T09S (500-183935-1)	6/22/20	10:08 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T06S (500-183935-2)	6/22/20	11:48 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
T05S (500-183935-3)	6/22/20	13:37 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/23/20 1630	TA-CHI	FE		
2	FE					
3					6/24/20 08:42	ETASTL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136646.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/14/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G20S (500-183935-7)	6/24/20	10:20 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G33S (500-183935-8)	6/24/20	13:54 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/24/20 1700	TA-CHI	FE		
2	FE			Jack Boyd	6/25/20 08:45	ETASTL
3						

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136715.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/2/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
T01S (500-183935-9)	6/25/20	09:17 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G30S (500-183935-10)	6/25/20	13:03 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R08S (500-183935-12)	6/26/20	09:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G45S (500-183935-13)	6/26/20	10:51 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G48S (500-183935-14)	6/26/20	12:40 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Stephanie Hernandez	6/26/20 1600	TA-CHI	FED EX		
2	FED EX				6/27/2020 0822	ETA STL
3						

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136826.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/2/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G47S (500-183935-19)	6/30/20	09:30 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G31S (500-183935-20)	6/30/20	11:03 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/30/20 1630	TA-CHI	FED EX		
FED EX				7/1/2020 0847	ETA STL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mockler, Diana J	Carrier Tracking No(s):	COC No: 500-136826.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: diana.mockler@testamericainc.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-183935-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 7/2/2020			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Joliet #9 (Quarry) CCR	Project #: 50011504			
Site: NRG Midwest Generation LSQ Joliet #9 CCR	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 Standard Target List	904.0/PrecSep_0 Standard Target List	Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
G46S (500-183935-15)	6/29/20	09:37 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
G44S (500-183935-16)	6/29/20	10:51 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S (500-183935-17)	6/29/20	13:14 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;
R32S DUP (500-183935-18)	6/29/20	13:14 Central		Water			X	X	X	3	Batch QC must be performed (dup, spikes, etc) - no NCMs concerning limited volume;

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Stephanie Hernandez	6/30/20 1630	TA-CHI	FED EX		
Relinquished by: FED EX	Date/Time:	Company	Received by:	Date/Time: 7/1/2020 0847	Company ETA STL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-2

Login Number: 183935
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	9.1,8.5,6.6,7.1,9.1,6.7,9.5
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-2

Login Number: 183935
List Number: 3
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/24/20 12:17 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-2

Login Number: 183935
List Number: 5
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/25/20 02:09 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-2

Login Number: 183935
List Number: 7
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/27/20 10:01 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-183935-2

Login Number: 183935
List Number: 10
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 07/01/20 11:27 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T09S
Date Collected: 06/22/20 10:08
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474500	06/25/20 12:11	RJD	TAL SL
Total/NA	Analysis	903.0		1	476585	07/17/20 08:15	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474502	06/25/20 12:37	RJD	TAL SL
Total/NA	Analysis	904.0		1	475712	07/07/20 09:11	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: T06S
Date Collected: 06/22/20 11:48
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474500	06/25/20 12:11	RJD	TAL SL
Total/NA	Analysis	903.0		1	476585	07/17/20 08:15	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:24	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: T05S
Date Collected: 06/22/20 13:37
Date Received: 06/22/20 15:40

Lab Sample ID: 500-183935-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474500	06/25/20 12:11	RJD	TAL SL
Total/NA	Analysis	903.0		1	476585	07/17/20 08:15	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474502	06/25/20 12:37	RJD	TAL SL
Total/NA	Analysis	904.0		1	475712	07/07/20 09:11	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: T02S
Date Collected: 06/23/20 09:24
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474991	06/30/20 15:34	MNH	TAL SL
Total/NA	Analysis	903.0		1	477682	07/29/20 07:39	SCB	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:24	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T08S
Date Collected: 06/23/20 11:51
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474500	06/25/20 12:11	RJD	TAL SL
Total/NA	Analysis	903.0		1	476585	07/17/20 08:15	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474502	06/25/20 12:37	RJD	TAL SL
Total/NA	Analysis	904.0		1	475712	07/07/20 09:12	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: T03S
Date Collected: 06/23/20 13:53
Date Received: 06/23/20 15:10

Lab Sample ID: 500-183935-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474500	06/25/20 12:11	RJD	TAL SL
Total/NA	Analysis	903.0		1	476585	07/17/20 08:17	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:24	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: G20S
Date Collected: 06/24/20 10:20
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474655	06/26/20 10:59	RJD	TAL SL
Total/NA	Analysis	903.0		1	476658	07/20/20 14:32	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474656	06/26/20 11:16	RJD	TAL SL
Total/NA	Analysis	904.0		1	476647	07/17/20 14:38	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: G33S
Date Collected: 06/24/20 13:54
Date Received: 06/24/20 15:20

Lab Sample ID: 500-183935-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474655	06/26/20 10:59	RJD	TAL SL
Total/NA	Analysis	903.0		1	476658	07/20/20 14:32	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474656	06/26/20 11:16	RJD	TAL SL
Total/NA	Analysis	904.0		1	476647	07/17/20 14:39	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: T01S
Date Collected: 06/25/20 09:17
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474991	06/30/20 15:34	MNH	TAL SL
Total/NA	Analysis	903.0		1	477682	07/29/20 07:40	SCB	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:24	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: G30S
Date Collected: 06/25/20 13:03
Date Received: 06/25/20 15:10

Lab Sample ID: 500-183935-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474991	06/30/20 15:34	MNH	TAL SL
Total/NA	Analysis	903.0		1	477682	07/29/20 07:41	SCB	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:25	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477748	07/30/20 08:51	SMP	TAL SL

Client Sample ID: R08S
Date Collected: 06/26/20 09:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474991	06/30/20 15:34	MNH	TAL SL
Total/NA	Analysis	903.0		1	477682	07/29/20 07:41	SCB	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:25	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Client Sample ID: G45S
Date Collected: 06/26/20 10:51
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474991	06/30/20 15:34	MNH	TAL SL
Total/NA	Analysis	903.0		1	477682	07/29/20 07:41	SCB	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:25	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: G48S
Date Collected: 06/26/20 12:40
Date Received: 06/26/20 14:30

Lab Sample ID: 500-183935-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474991	06/30/20 15:34	MNH	TAL SL
Total/NA	Analysis	903.0		1	477682	07/29/20 07:41	SCB	TAL SL
Total/NA	Prep	PrecSep_0			474994	06/30/20 15:54	MNH	TAL SL
Total/NA	Analysis	904.0		1	477661	07/28/20 12:25	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Client Sample ID: G46S
Date Collected: 06/29/20 09:37
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			475087	07/02/20 08:11	RBR	TAL SL
Total/NA	Analysis	903.0		1	477516	07/27/20 09:00	KRR	TAL SL
Total/NA	Prep	PrecSep_0			475089	07/02/20 09:09	RBR	TAL SL
Total/NA	Analysis	904.0		1	477411	07/24/20 09:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Client Sample ID: G44S
Date Collected: 06/29/20 10:51
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			475087	07/02/20 08:11	RBR	TAL SL
Total/NA	Analysis	903.0		1	477516	07/27/20 09:00	KRR	TAL SL
Total/NA	Prep	PrecSep_0			475089	07/02/20 09:09	RBR	TAL SL
Total/NA	Analysis	904.0		1	477411	07/24/20 09:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Client Sample ID: R32S
Date Collected: 06/29/20 13:14
Date Received: 06/29/20 14:30

Lab Sample ID: 500-183935-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			475087	07/02/20 08:11	RBR	TAL SL
Total/NA	Analysis	903.0		1	477516	07/27/20 09:00	KRR	TAL SL
Total/NA	Prep	PrecSep_0			475089	07/02/20 09:09	RBR	TAL SL
Total/NA	Analysis	904.0		1	477411	07/24/20 09:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Client Sample ID: R32S DUP

Lab Sample ID: 500-183935-18

Date Collected: 06/29/20 13:14

Matrix: Water

Date Received: 06/29/20 14:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			475087	07/02/20 08:11	RBR	TAL SL
Total/NA	Analysis	903.0		1	477515	07/27/20 09:11	KRR	TAL SL
Total/NA	Prep	PrecSep_0			475089	07/02/20 09:09	RBR	TAL SL
Total/NA	Analysis	904.0		1	477411	07/24/20 09:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Client Sample ID: G47S

Lab Sample ID: 500-183935-19

Date Collected: 06/30/20 09:30

Matrix: Water

Date Received: 06/30/20 12:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			475087	07/02/20 08:11	RBR	TAL SL
Total/NA	Analysis	903.0		1	477515	07/27/20 09:11	KRR	TAL SL
Total/NA	Prep	PrecSep_0			475089	07/02/20 09:09	RBR	TAL SL
Total/NA	Analysis	904.0		1	477411	07/24/20 09:41	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Client Sample ID: G31S

Lab Sample ID: 500-183935-20

Date Collected: 06/30/20 11:03

Matrix: Water

Date Received: 06/30/20 12:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			475087	07/02/20 08:11	RBR	TAL SL
Total/NA	Analysis	903.0		1	477515	07/27/20 09:11	KRR	TAL SL
Total/NA	Prep	PrecSep_0			475089	07/02/20 09:09	RBR	TAL SL
Total/NA	Analysis	904.0		1	477411	07/24/20 09:42	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477747	07/30/20 08:50	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)
Lab Sample ID	Client Sample ID	Ba (40-110)
500-183935-1	T09S	93.6
500-183935-1 DU	T09S	90.1
500-183935-2	T06S	87.2
500-183935-3	T05S	62.8
500-183935-4	T02S	85.8
500-183935-4 DU	T02S	86.4
500-183935-5	T08S	86.6
500-183935-6	T03S	91.6
500-183935-7	G20S	84.6
500-183935-7 DU	G20S	89.5
500-183935-8	G33S	49.1
500-183935-9	T01S	85.5
500-183935-10	G30S	90.2
500-183935-12	R08S	85.5
500-183935-13	G45S	88.1
500-183935-14	G48S	82.8
500-183935-15	G46S	93.5
500-183935-16	G44S	88.4
500-183935-17	R32S	88.1
500-183935-18	R32S DUP	95.0
500-183935-19	G47S	96.1
500-183935-20	G31S	91.4
LCS 160-474500/1-A	Lab Control Sample	97.1
LCS 160-474655/1-A	Lab Control Sample	89.8
LCS 160-474991/1-A	Lab Control Sample	80.4
LCS 160-475087/1-A	Lab Control Sample	87.2
MB 160-474500/14-A	Method Blank	94.8
MB 160-474655/7-A	Method Blank	88.7
MB 160-474991/17-A	Method Blank	96.7
MB 160-475087/21-A	Method Blank	94.4

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-183935-1	T09S	93.6	76.6
500-183935-1 DU	T09S	90.1	78.1
500-183935-2	T06S	86.1	83.4
500-183935-3	T05S	62.8	66.9
500-183935-4	T02S	85.8	83.4
500-183935-4 DU	T02S	86.4	83.0
500-183935-5	T08S	86.6	77.0
500-183935-6	T03S	77.2	81.5
500-183935-7	G20S	84.6	86.0
500-183935-7 DU	G20S	89.5	86.7

Tracer/Carrier Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-183935-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (40-110)	Y (40-110)
500-183935-8	G33S	49.1	83.0
500-183935-9	T01S	85.5	80.4
500-183935-10	G30S	90.2	83.4
500-183935-12	R08S	85.5	80.0
500-183935-13	G45S	88.1	80.4
500-183935-14	G48S	82.8	83.0
500-183935-15	G46S	93.5	72.5
500-183935-16	G44S	88.4	73.6
500-183935-17	R32S	88.1	75.5
500-183935-18	R32S DUP	95.0	73.3
500-183935-19	G47S	96.1	75.1
500-183935-20	G31S	91.4	76.6
LCS 160-474502/1-A	Lab Control Sample	97.1	78.5
LCS 160-474656/1-A	Lab Control Sample	89.8	84.5
LCS 160-474994/1-A	Lab Control Sample	80.4	80.0
LCS 160-475089/1-A	Lab Control Sample	87.2	73.3
MB 160-474502/14-A	Method Blank	94.8	75.1
MB 160-474656/7-A	Method Blank	88.7	82.6
MB 160-474994/17-A	Method Blank	96.7	83.4
MB 160-475089/21-A	Method Blank	94.4	86.4

Tracer/Carrier Legend

Ba = Ba Carrier
Y = Y Carrier

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T09S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-183935-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N) N.C.

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/22/20 Start Purge: 0950 (2400 Hr. Clock) End Purge: 1008

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.58

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 603.74 (ft./msl)

Water Level 100.70 (ft.)

Ground Water Elev. 503.04 (ft./msl)

Well Bottom Elevation * 444.80 (ft./msl)

	1st	2nd	Final	
pH	7.49	7.50	7.50	(std.)
SC	1189	1178	1178	(umhos/cm)
Temp.	15.68	15.72	15.72	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 77°F, Rain Shower, S winds 5-10 mph

Other: *Reference Measurement (updated 02/19/14)

Depth To Water from L.S. = 100.70 - 2.40 = 98.30 (ft)

Levels were taken on 06/22/20 @ 0935.

* Total Depth: 158.59

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T06S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-183935-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/22/20 Start Purge: 1130 (2400 Hr. Clock) End Purge: 1148

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.30 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 621.02 (ft./msl)

Water Level 111.11 (ft.)

Ground Water Elev. 509.91 (ft./msl)

Well Bottom Elevation * 447.94 (ft./msl)

	1st	2nd	Final	
pH	7.64	7.61	7.69	(std.)
SC	781	779	779	(umhos/cm)
Temp.	25.97	26.04	26.04	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 83°F, Sunny, S winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 111.11 - 2.30 = 108.81 (ft.)

Levels were taken on 06/22/20 @ 1115 .

* Total Deth = 173.00

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T05S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-183935-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/22/20 Start Purge: 1315 (2400 Hr. Clock) End Purge: 1337

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.71

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 623.45 (ft./msl)

Water Level 115.24 (ft.)

Ground Water Elev. 508.21 (ft./msl)

Well Bottom Elevation * 448.35 (ft./msl)

	1st	2nd	Final	
pH	10.69	10.71	10.71	(std.)
SC	2420	2420	2420	(umhos/cm)
Temp.	19.15	19.17	19.17	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 74°F, Light Rain, S wind @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 115.24 - 2.40 = 112.84 (ft.)

Levels were taken on 06/22/20 @ 1300.

* Total Deth = 175.00

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T02S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-183935-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/(N))
Sampling Bladder Pump Dedicated (Y/(N))

PURGING INFORMATION

Purge Date: 06/23/20 Start Purge: 0905 (2400 Hr. Clock) End Purge: 0924

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.33 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 626.16 (ft./msl)
Water Level 126.86 (ft.)
Ground Water Elev. 499.30 (ft./msl)
Well Bottom Elevation * 453.40 (ft./msl)

	1st	2nd	Final	
pH	7.77	7.78	7.78	(std.)
SC	1347	1350	1350	(umhos/cm)
Temp.	20.64	20.61	20.61	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 67°F, Mostly Cloudy, NW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 126.86 - 2.33 = 124.53 (ft)
Levels were taken on 06/23/20 @ 0850.
* Total Depth = 172.75

(Updated: 10-10-2018))

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T08S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-183935-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/23/20 Start Purge: 1135 (2400 Hr. Clock) End Purge: 1151

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.41

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.38 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 627.39 (ft./msl)

Water Level 122.71 (ft.)

Ground Water Elev. 504.68 (ft./msl)

Well Bottom Elevation * 447.38 (ft./msl)

	1st	2nd	Final	
pH	9.13	9.12	9.12	(std.)
SC	1335	1345	1345	(umhos/cm)
Temp.	23.89	23.93	23.93	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 73°F, Fair, NW winds e 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 122.71 - 2.38 = 120.33 (ft.)

Levels were taken on 06/23/20 @ 1120

* Total Deth = 180.00

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/23/20 Start Purge: 1335 (2400 Hr. Clock) End Purge: 1353

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 3.08 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 629.89 (ft./msl)

Water Level 131.27 (ft.)

Ground Water Elev. 498.62 (ft./msl)

Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	7.29	7.29	7.29	(std.)
SC	1,217	1,220	1,220	(umhos/cm)
Temp.	14.01	14.07	14.07	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor

Weather Conditions: 76°F, Partly Cloudy, NW winds @ 10-15 mph

Other: *Reference Measurement

Depth To Water from L.S. = 131.27 - 3.08 = 128.19 (ft.)

Levels were taken on 06/23/20 @ 1325.

* Total Depth = 172.95

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/20 Start Purge: 1000 (2400 Hr. Clock) End Purge: 1020

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.13

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.33 (ft./msl)
Water Level 39.73 (ft.)
Ground Water Elev. 540.60 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.82	7.81	7.81	(std.)
SC	691	699	699	(umhos/cm)
Temp.	24.29	24.29	24.29	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 74°F, Fair, NW winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 39.73 - 2.78 = 36.95 (A)
Levels were taken on 06/24/20 @ 0950.

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-8

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/24/20 Start Purge: 1335 (2400 Hr. Clock) End Purge: 1354

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.74

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 1.73 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.66 (ft./msl)
Water Level 28.21 (ft.)
Ground Water Elev. 507.45 (ft./msl)
Well Bottom Elevation *452.72 (ft./msl)

	1st	2nd	Final	
pH	7.58	7.59	7.59	(std.)
SC	637	631	631	(umhos/cm)
Temp.	18.79	18.66	18.66	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Gray, Slight Turbidity, No Odor
Weather Conditions: 79°F, Mostly Cloudy, W winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 28.21 - 1.73 = 26.48 (ft)
Levels were taken on 06/24/20 @ 1330.

Updated: (12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T01S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-183935-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/25/20 Start Purge: 0855 (2400 Hr. Clock) End Purge: 0917

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.28

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.48 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 621.78 (ft./msl)
Water Level 111.81 (ft.)
Ground Water Elev. 509.97 (ft./msl)
Well Bottom Elevation * 451.46 (ft./msl)

	1st	2nd	Final	
pH	7.76	7.75	7.75	(std.)
SC	1428	1433	1433	(umhos/cm)
Temp.	22.24	22.25	22.25	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, High Turbidity, Slight Odor
Weather Conditions: 74°F, Sunny, W winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 111.81 - 2.48 = 109.33 (ft.)
Levels were taken on 06/25/20 @ 0840.
* Total Depth = 170.00

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-10

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/25/20 Start Purge: 1245 (2400 Hr. Clock) End Purge: 1303

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.23

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.31 (ft)

Ref. Measuring Pt. TIC

Well Elevation *524.70 (ft./msl)

Water Level 1.28 (ft.)

Ground Water Elev. 523.42 (ft./msl)

Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	8.34	8.33	8.33	(std.)
SC	1,830	1,830	1,830	(umhos/cm)
Temp.	16.00	16.04	16.04	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 82°F, Mostly Cloudy, W winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 1.28 - 2.31 = -1.03 (ft.)

Levels were taken on 06/25/20 @ 1240.

(Updated 10-102018)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T04S
Facility: Midwest Generation-Joliet Quarry
Job #: 500-183935 -11

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up _____ (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation * 631.35 (ft./msl) Temp. _____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation * 458.07 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @ .

* Total Deth = 173.00

* Unable to access well due to excavation on 06/24/20 @ 0915

(Updated: 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-12

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/26/20 Start Purge: 0925 (2400 Hr. Clock) End Purge: 0940

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.55 (ft)

Ref. Measuring Pt. TIC

Well Elevation *578.62 (ft./msl)

Water Level 65.69 (ft.)

Ground Water Elev. 512.93 (ft./msl)

Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.33	8.32	8.32	(std.)
SC	1,104	1,107	1,107	(umhos/cm)
Temp.	14.30	14.30	14.30	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 75° F, Cloudy, SW winds 5-10 mph

Other: *Reference Measurement (Well ID updated 11-25-15)

Depth To Water from L.S. = 65.69 - 2.55 = 63.14 (ft.)

Levels were taken on 06/26/20 @ 0915.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-13

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/26/20 Start Purge: 1035 (2400 Hr. Clock) End Purge: 1051

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.03

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.97 (ft)

Ref. Measuring Pt. TIC

Well Elevation *603.31 (ft./msl)

Water Level 61.12 (ft.)

Ground Water Elev. 542.19 (ft./msl)

Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.22	7.21	7.21	(std.)
SC	1590	1590	1590	(umhos/cm)
Temp.	14.90	14.92	14.92	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor

Weather Conditions: 77°F, Mostly Cloudy, SW winds 0-5 mph

Other: *Reference Measurement

Depth To Water from L.S. = 61.12 - 2.97 = 58.15 (ft.)

Levels were taken on 06/26/20 @ 1030.

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-14

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/26/20 Start Purge: 1220 (2400 Hr. Clock) End Purge: 1240

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.45 (ft)

Ref. Measuring Pt. TIC

Well Elevation *620.78 (ft./msl)

Water Level 96.84 (ft.)

Ground Water Elev. 523.94 (ft./msl)

Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	9.14	9.20	9.20	(std.)
SC	1560	1560	1560	(umhos/cm)
Temp.	15.36	15.33	15.33	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 76°F, Mostly Cloudy, S winds @ 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 96.84 - 2.45 = 94.39 (ft.)

Levels were taken on 06/26/20 @ 1215.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-15

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/29/20 Start Purge: 0920 (2400 Hr. Clock) End Purge: 0937

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.77

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.70 (ft)
Ref. Measuring Pt. TIC
Well Elevation *601.32 (ft./msl)
Water Level 100.11 (ft.)
Ground Water Elev. 501.21 (ft./msl)
Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	8.04	8.06	8.06	(std.)
SC	1,494	1,494	1,494	(umhos/cm)
Temp.	16.39	16.42	16.42	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, Slight Turbidity, No Odor
Weather Conditions: 83°F, Mostly Cloudy, S winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 100.11 - 2.70 = 97.41 (ft.)
Levels were taken on 06/29/20 @ 0915.

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-1

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/29/20 Start Purge: 1035 (2400 Hr. Clock) End Purge: 1051

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.52

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.18 (ft)

Ref. Measuring Pt. TIC

Well Elevation *586.69 (ft./msl)

Water Level 77.78 (ft.)

Ground Water Elev. 508.91 (ft./msl)

Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.30	7.30	7.30	(std.)
SC	1051	1055	1055	(umhos/cm)
Temp.	21.54	21.59	21.59	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 86°F, Partly Cloudy, S winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 77.78 - 2.18 = 75.60 (H)

Levels were taken on 06/29/20 @ 1030.

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-17

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/29/20 Start Purge: 1255 (2400 Hr. Clock) End Purge: 1314

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.98

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.03 (ft)

Ref. Measuring Pt. TIC

Well Elevation *536.99 (ft./msl)

Water Level 17.85 (ft.)

Ground Water Elev. 519.14 (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.50	7.47	7.47	(std.)
SC	1062	1070	1070	(umhos/cm)
Temp.	12.42	12.48	12.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No odor

Weather Conditions: 89°F, Partly Cloudy, SE winds e 5-10mph

Other: *Reference Measurement

Depth To Water from L.S. = 17.85 - 2.03 = 15.82 (ft.)

Levels were taken on 06/29/20 @ 1250.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-18

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 2.03 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation *536.99 (ft./msl) Temp. _____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. = _____

Levels were taken on 06/29/20 @ 1250

* DUP of R32S

Sampled @ 1314

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-19

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging Bladder Pump — Dedicated (Y/N)
Sampling Bladder Pump — Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/30/20 Start Purge: 0915 (2400 Hr. Clock) End Purge: 0930

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.48

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.10 (ft./msl)
Water Level 89.89 (ft.)
Ground Water Elev. 522.21 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.05	9.04	9.04	(std.)
SC	1,740	1,730	1730	(umhos/cm)
Temp.	17.45	17.47	17.47	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 78°F, Sunny, SE winds e 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 89.89 - 2.50 = 87.39 (ft.)
Levels were taken on 06/30/20 @ 0910.

(Updated 10-10-2018)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-183935-20

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 06/30/20 Start Purge: 1045 (2400 Hr. Clock) End Purge: 1103

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.81

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.58 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.78 (ft./msl)

Water Level 26.20 (ft.)

Ground Water Elev. 509.58 (ft./msl)

Well Bottom Elevation *453.36 (ft./msl)

	1st	2nd	Final	
pH	7.24	7.26	7.26	(std.)
SC	2420	2430	2430	(umhos/cm)
Temp.	16.90	16.95	16.95	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 86°F, Sunny, SE wind 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 26.20 - 2.58 = 23.62 (ft.)

Levels were taken on 06/30/20 @ 1040.

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins TestAmerica, Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-192056-1
Client Project/Site: Joliet #9 (Quarry) CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Diana Mockler

Authorized for release by:
12/30/2020 9:12:05 AM

Diana Mockler, Project Manager I
(219)252-7570
Diana.Mockler@Eurofinset.com

LINKS

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Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 500-192056-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-192056-1

Comments
No additional comments.

Receipt
The samples were received on 12/7/2020 3:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 8 coolers at receipt time were 1.9º C, 2.2º C, 3.0º C, 3.6º C, 3.7º C, 5.3º C, 5.4º C and 8.3º C.

Metals
Method 6020A: The continuing calibration verification (CCV) at lines 75 and 95, associated with batch 500-576882 recovered above the upper control limit for Lead. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 6020A: The continuing calibration verification (CCV) at line 68, associated with batch 500-577364 recovered above the upper control limit for Lead. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Method Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Method	Method Description	Protocol	Laboratory
6010C	Metals (ICP)	SW846	TAL CHI
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 F C	Fluoride	SM	TAL CHI
SM 4500 SO4 E	Sulfate, Total	SM	TAL CHI
Field Sampling	Field Sampling	EPA	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-192056-1	G30S	Water	12/07/20 09:48	12/07/20 15:00	
500-192056-2	G48S	Water	12/07/20 11:26	12/07/20 15:00	
500-192056-3	G47S	Water	12/07/20 13:25	12/07/20 15:00	
500-192056-4	T09S	Water	12/08/20 10:08	12/08/20 15:34	
500-192056-5	DUP	Water	12/08/20 10:08	12/08/20 15:34	
500-192056-6	T05S	Water	12/08/20 13:32	12/08/20 15:34	
500-192056-7	T08S	Water	12/09/20 09:58	12/09/20 15:45	
500-192056-8	T02S	Water	12/09/20 12:29	12/09/20 15:45	
500-192056-9	G31S	Water	12/09/20 14:40	12/09/20 15:45	
500-192056-10	G33S	Water	12/10/20 10:20	12/10/20 12:00	
500-192056-11	G20S	Water	12/11/20 09:05	12/11/20 15:45	
500-192056-12	G45S	Water	12/11/20 12:42	12/11/20 15:45	
500-192056-13	T01S	Water	12/14/20 09:06	12/14/20 15:35	
500-192056-14	T06S	Water	12/14/20 11:25	12/14/20 15:35	
500-192056-15	R08S	Water	12/14/20 14:17	12/14/20 15:35	
500-192056-16	T03S	Water	12/15/20 09:13	12/15/20 15:00	
500-192056-17	G46S	Water	12/15/20 10:22	12/15/20 15:00	
500-192056-18	T04S	Water	12/15/20 13:25	12/15/20 15:00	
500-192056-19	G44S	Water	12/15/20 13:49	12/15/20 15:00	
500-192056-20	R32S	Water	12/16/20 08:54	12/16/20 13:10	

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G30S

Date Collected: 12/07/20 09:48
Date Received: 12/07/20 15:00

Lab Sample ID: 500-192056-1

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.024		0.010		mg/L		12/08/20 06:21	12/08/20 12:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0044		0.0010		mg/L		12/08/20 06:21	12/14/20 17:47	1
Barium	0.043		0.0025		mg/L		12/08/20 06:21	12/14/20 17:47	1
Boron	5.3		1.0		mg/L		12/08/20 06:21	12/14/20 12:22	20
Calcium	57		0.20		mg/L		12/08/20 06:21	12/14/20 17:47	1
Cobalt	<0.0010		0.0010		mg/L		12/08/20 06:21	12/08/20 18:04	1
Lead	<0.00050		0.00050		mg/L		12/08/20 06:21	12/08/20 18:04	1
Molybdenum	0.018		0.0050		mg/L		12/08/20 06:21	12/14/20 17:47	1
Selenium	<0.0025		0.0025		mg/L		12/08/20 06:21	12/14/20 17:47	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			12/08/20 04:37	1
Chloride	220		10		mg/L			12/12/20 15:03	5
Fluoride	1.2		0.10		mg/L			12/22/20 16:40	1
Sulfate	450		50		mg/L			12/17/20 13:38	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	-0.15				ft			12/07/20 09:48	1
Depth to Water (ft from MP)	2.16				ft			12/07/20 09:48	1
Elevation of well (ft from MP)	524.69				ft			12/07/20 09:48	1
Field pH	7.83				SU			12/07/20 09:48	1
Field Temperature	47.8				Degrees F			12/07/20 09:48	1
Ground Water Elevation	522.53				ft			12/07/20 09:48	1
Specific Conductance	1840				umhos/cm			12/07/20 09:48	1
Well bottom elevation	462.58				ft			12/07/20 09:48	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G48S

Date Collected: 12/07/20 11:26
Date Received: 12/07/20 15:00

Lab Sample ID: 500-192056-2

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.026		0.010		mg/L		12/08/20 06:21	12/08/20 12:53	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.016		0.0010		mg/L		12/08/20 06:21	12/14/20 17:50	1
Barium	0.020		0.0025		mg/L		12/08/20 06:21	12/14/20 17:50	1
Boron	6.0		1.0		mg/L		12/08/20 06:21	12/14/20 12:26	20
Calcium	29		0.20		mg/L		12/08/20 06:21	12/14/20 17:50	1
Cobalt	<0.0010		0.0010		mg/L		12/08/20 06:21	12/08/20 18:07	1
Lead	<0.00050		0.00050		mg/L		12/08/20 06:21	12/08/20 18:07	1
Molybdenum	0.41		0.0050		mg/L		12/08/20 06:21	12/14/20 17:50	1
Selenium	<0.0025		0.0025		mg/L		12/08/20 06:21	12/14/20 17:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			12/08/20 04:40	1
Chloride	110		10		mg/L			12/12/20 15:04	5
Fluoride	1.1		0.10		mg/L			12/22/20 16:51	1
Sulfate	410		50		mg/L			12/17/20 13:38	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	98.51				ft			12/07/20 11:26	1
Depth to Water (ft from MP)	100.96				ft			12/07/20 11:26	1
Elevation of well (ft from MP)	620.74				ft			12/07/20 11:26	1
Field pH	8.40				SU			12/07/20 11:26	1
Field Temperature	51.1				Degrees F			12/07/20 11:26	1
Ground Water Elevation	519.78				ft			12/07/20 11:26	1
Specific Conductance	1560				umhos/cm			12/07/20 11:26	1
Well bottom elevation	468.32				ft			12/07/20 11:26	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G47S

Date Collected: 12/07/20 13:25
Date Received: 12/07/20 15:00

Lab Sample ID: 500-192056-3

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.047		0.010		mg/L		12/08/20 06:21	12/08/20 12:56	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.066		0.0010		mg/L		12/08/20 06:21	12/14/20 17:54	1
Barium	0.012		0.0025		mg/L		12/08/20 06:21	12/14/20 17:54	1
Boron	7.6		1.0		mg/L		12/08/20 06:21	12/14/20 12:29	20
Calcium	11		0.20		mg/L		12/08/20 06:21	12/14/20 17:54	1
Cobalt	<0.0010		0.0010		mg/L		12/08/20 06:21	12/08/20 18:11	1
Lead	<0.00050		0.00050		mg/L		12/08/20 06:21	12/08/20 18:11	1
Molybdenum	0.62		0.0050		mg/L		12/08/20 06:21	12/14/20 17:54	1
Selenium	0.0030		0.0025		mg/L		12/08/20 06:21	12/14/20 17:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			12/09/20 02:47	1
Chloride	120		10		mg/L			12/12/20 15:05	5
Fluoride	1.1		0.10		mg/L			12/22/20 16:56	1
Sulfate	500		50		mg/L			12/17/20 13:39	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	84.42				ft			12/07/20 13:25	1
Depth to Water (ft from MP)	86.92				ft			12/07/20 13:25	1
Elevation of well (ft from MP)	612.04				ft			12/07/20 13:25	1
Field pH	9.13				SU			12/07/20 13:25	1
Field Temperature	51.1				Degrees F			12/07/20 13:25	1
Ground Water Elevation	525.12				ft			12/07/20 13:25	1
Specific Conductance	1620				umhos/cm			12/07/20 13:25	1
Well bottom elevation	459.84				ft			12/07/20 13:25	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T09S

Date Collected: 12/08/20 10:08
Date Received: 12/08/20 15:34

Lab Sample ID: 500-192056-4

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.070		0.010		mg/L		12/08/20 17:57	12/10/20 10:40	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0022		0.0010		mg/L		12/08/20 17:57	12/14/20 16:56	1
Barium	0.080		0.0025		mg/L		12/08/20 17:57	12/11/20 19:18	1
Boron	5.7		1.0		mg/L		12/08/20 17:57	12/15/20 16:03	20
Calcium	110		0.20		mg/L		12/08/20 17:57	12/11/20 19:18	1
Cobalt	<0.0010		0.0010		mg/L		12/08/20 17:57	12/11/20 19:18	1
Lead	0.00061		0.00050		mg/L		12/08/20 17:57	12/11/20 19:18	1
Molybdenum	0.89		0.0050		mg/L		12/08/20 17:57	12/11/20 19:18	1
Selenium	<0.0025		0.0025		mg/L		12/08/20 17:57	12/14/20 16:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			12/09/20 02:55	1
Chloride	84		10		mg/L			12/12/20 15:05	5
Fluoride	0.46		0.10		mg/L			12/22/20 16:59	1
Sulfate	410		50		mg/L			12/17/20 13:39	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	100.76				ft			12/08/20 10:08	1
Depth to Water (ft from MP)	103.16				ft			12/08/20 10:08	1
Elevation of well (ft from MP)	603.69				ft			12/08/20 10:08	1
Field pH	7.51				SU			12/08/20 10:08	1
Field Temperature	45.1				Degrees F			12/08/20 10:08	1
Ground Water Elevation	500.53				ft			12/08/20 10:08	1
Specific Conductance	964				umhos/cm			12/08/20 10:08	1
Well bottom elevation	444.80				ft			12/08/20 10:08	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: DUP

Date Collected: 12/08/20 10:08
Date Received: 12/08/20 15:34

Lab Sample ID: 500-192056-5

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.069		0.010		mg/L		12/08/20 17:57	12/10/20 10:44	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0023		0.0010		mg/L		12/08/20 17:57	12/14/20 16:58	1
Barium	0.081		0.0025		mg/L		12/08/20 17:57	12/11/20 19:21	1
Boron	5.4		1.0		mg/L		12/08/20 17:57	12/15/20 16:07	20
Calcium	110		0.20		mg/L		12/08/20 17:57	12/11/20 19:21	1
Cobalt	<0.0010		0.0010		mg/L		12/08/20 17:57	12/11/20 19:21	1
Lead	0.00057		0.00050		mg/L		12/08/20 17:57	12/11/20 19:21	1
Molybdenum	0.90		0.0050		mg/L		12/08/20 17:57	12/11/20 19:21	1
Selenium	<0.0025		0.0025		mg/L		12/08/20 17:57	12/14/20 16:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			12/09/20 03:00	1
Chloride	84		10		mg/L			12/12/20 15:11	5
Fluoride	0.45		0.10		mg/L			12/22/20 17:03	1
Sulfate	400		50		mg/L			12/17/20 13:39	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	100.76				ft			12/08/20 10:08	1
Depth to Water (ft from MP)	103.16				ft			12/08/20 10:08	1
Elevation of well (ft from MP)	603.69				ft			12/08/20 10:08	1
Field pH	7.51				SU			12/08/20 10:08	1
Field Temperature	45.1				Degrees F			12/08/20 10:08	1
Ground Water Elevation	500.53				ft			12/08/20 10:08	1
Specific Conductance	964				umhos/cm			12/08/20 10:08	1
Well bottom elevation	444.80				ft			12/08/20 10:08	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T05S

Date Collected: 12/08/20 13:32
Date Received: 12/08/20 15:34

Lab Sample ID: 500-192056-6

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.021		0.010		mg/L		12/08/20 17:57	12/10/20 10:48	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.13		0.0010		mg/L		12/08/20 17:57	12/14/20 17:00	1
Barium	0.010		0.0025		mg/L		12/08/20 17:57	12/11/20 19:25	1
Boron	14		5.0		mg/L		12/08/20 17:57	12/15/20 16:10	100
Calcium	1.5		0.20		mg/L		12/08/20 17:57	12/11/20 19:25	1
Cobalt	<0.0010		0.0010		mg/L		12/08/20 17:57	12/11/20 19:25	1
Lead	<0.00050		0.00050		mg/L		12/08/20 17:57	12/11/20 19:25	1
Molybdenum	1.2		0.0050		mg/L		12/08/20 17:57	12/11/20 19:25	1
Selenium	0.0048		0.0025		mg/L		12/08/20 17:57	12/14/20 17:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1400		10		mg/L			12/09/20 03:03	1
Chloride	140		10		mg/L			12/12/20 15:11	5
Fluoride	2.0		0.10		mg/L			12/22/20 17:10	1
Sulfate	610		100		mg/L			12/17/20 13:40	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	118.77				ft			12/08/20 13:32	1
Depth to Water (ft from MP)	121.17				ft			12/08/20 13:32	1
Elevation of well (ft from MP)	623.46				ft			12/08/20 13:32	1
Field pH	10.35				SU			12/08/20 13:32	1
Field Temperature	44.6				Degrees F			12/08/20 13:32	1
Ground Water Elevation	502.29				ft			12/08/20 13:32	1
Specific Conductance	1750				umhos/cm			12/08/20 13:32	1
Well bottom elevation	448.35				ft			12/08/20 13:32	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T08S

Date Collected: 12/09/20 09:58
Date Received: 12/09/20 15:45

Lab Sample ID: 500-192056-7

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.032		0.010		mg/L		12/10/20 07:37	12/12/20 00:29	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.022		0.0010		mg/L		12/10/20 07:37	12/14/20 17:57	1
Barium	0.023		0.0025		mg/L		12/10/20 07:37	12/14/20 17:57	1
Boron	9.1		1.0		mg/L		12/10/20 07:37	12/15/20 17:28	20
Calcium	16		0.20		mg/L		12/10/20 07:37	12/14/20 17:57	1
Cobalt	<0.0010		0.0010		mg/L		12/10/20 07:37	12/16/20 13:52	1
Lead	<0.00050		0.00050		mg/L		12/10/20 07:37	12/16/20 13:52	1
Molybdenum	0.68		0.10		mg/L		12/10/20 07:37	12/15/20 17:28	20
Selenium	<0.0025		0.0025		mg/L		12/10/20 07:37	12/14/20 17:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	840		10		mg/L			12/11/20 03:08	1
Chloride	100		10		mg/L			12/12/20 15:12	5
Fluoride	0.91		0.10		mg/L			12/22/20 17:22	1
Sulfate	460		50		mg/L			12/17/20 13:40	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	124.74				ft			12/09/20 09:58	1
Depth to Water (ft from MP)	127.12				ft			12/09/20 09:58	1
Elevation of well (ft from MP)	627.50				ft			12/09/20 09:58	1
Field pH	8.35				SU			12/09/20 09:58	1
Field Temperature	50.4				Degrees F			12/09/20 09:58	1
Ground Water Elevation	500.38				ft			12/09/20 09:58	1
Specific Conductance	996				umhos/cm			12/09/20 09:58	1
Well bottom elevation	447.38				ft			12/09/20 09:58	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T02S

Date Collected: 12/09/20 12:29
Date Received: 12/09/20 15:45

Lab Sample ID: 500-192056-8

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.040		0.010		mg/L		12/10/20 07:37	12/12/20 00:33	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0060		0.0010		mg/L		12/10/20 07:37	12/14/20 17:59	1
Barium	0.091		0.0025		mg/L		12/10/20 07:37	12/14/20 17:59	1
Boron	4.9		0.50		mg/L		12/10/20 07:37	12/15/20 17:32	10
Calcium	64		0.20		mg/L		12/10/20 07:37	12/14/20 17:59	1
Cobalt	<0.0010		0.0010		mg/L		12/10/20 07:37	12/16/20 13:56	1
Lead	<0.00050		0.00050		mg/L		12/10/20 07:37	12/16/20 13:56	1
Molybdenum	0.33		0.050		mg/L		12/10/20 07:37	12/15/20 17:32	10
Selenium	<0.0025		0.0025		mg/L		12/10/20 07:37	12/14/20 17:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			12/11/20 03:11	1
Chloride	97		10		mg/L			12/12/20 15:12	5
Fluoride	0.55		0.10		mg/L			12/22/20 17:27	1
Sulfate	370		50		mg/L			12/17/20 13:41	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	129.71				ft			12/09/20 12:29	1
Depth to Water (ft from MP)	132.04				ft			12/09/20 12:29	1
Elevation of well (ft from MP)	626.12				ft			12/09/20 12:29	1
Field pH	7.70				SU			12/09/20 12:29	1
Field Temperature	62.4				Degrees F			12/09/20 12:29	1
Ground Water Elevation	494.08				ft			12/09/20 12:29	1
Specific Conductance	1130				umhos/cm			12/09/20 12:29	1
Well bottom elevation	453.40				ft			12/09/20 12:29	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G31S

Date Collected: 12/09/20 14:40
Date Received: 12/09/20 15:45

Lab Sample ID: 500-192056-9

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.10		0.010		mg/L		12/10/20 07:37	12/12/20 00:36	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0034		0.0010		mg/L		12/10/20 07:37	12/14/20 18:01	1
Barium	0.049		0.0025		mg/L		12/10/20 07:37	12/14/20 18:01	1
Boron	4.5		0.50		mg/L		12/10/20 07:37	12/15/20 17:35	10
Calcium	120		0.20		mg/L		12/10/20 07:37	12/14/20 18:01	1
Cobalt	<0.0010		0.0010		mg/L		12/10/20 07:37	12/16/20 13:59	1
Lead	<0.00050		0.00050		mg/L		12/10/20 07:37	12/16/20 13:59	1
Molybdenum	0.57		0.050		mg/L		12/10/20 07:37	12/15/20 17:35	10
Selenium	<0.0025		0.0025		mg/L		12/10/20 07:37	12/14/20 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			12/11/20 03:13	1
Chloride	180		10		mg/L			12/12/20 15:13	5
Fluoride	0.29		0.10		mg/L			12/22/20 17:31	1
Sulfate	400		50		mg/L			12/17/20 13:41	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	25.24				ft			12/09/20 14:40	1
Depth to Water (ft from MP)	27.82				ft			12/09/20 14:40	1
Elevation of well (ft from MP)	535.77				ft			12/09/20 14:40	1
Field pH	7.29				SU			12/09/20 14:40	1
Field Temperature	56.7				Degrees F			12/09/20 14:40	1
Ground Water Elevation	507.95				ft			12/09/20 14:40	1
Specific Conductance	1071				umhos/cm			12/09/20 14:40	1
Well bottom elevation	453.36				ft			12/09/20 14:40	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G33S

Date Collected: 12/10/20 10:20
Date Received: 12/10/20 12:00

Lab Sample ID: 500-192056-10

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.041		0.010		mg/L		12/11/20 07:38	12/14/20 12:26	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0016		0.0010		mg/L		12/11/20 07:38	12/15/20 18:45	1
Barium	0.046		0.0025		mg/L		12/11/20 07:38	12/11/20 21:20	1
Boron	1.0		0.25		mg/L		12/11/20 07:38	12/15/20 16:54	5
Calcium	51		0.20		mg/L		12/11/20 07:38	12/11/20 21:20	1
Cobalt	<0.0010		0.0010		mg/L		12/11/20 07:38	12/15/20 18:45	1
Lead	0.00058		0.00050		mg/L		12/11/20 07:38	12/11/20 21:20	1
Molybdenum	<0.0050		0.0050		mg/L		12/11/20 07:38	12/11/20 21:20	1
Selenium	<0.0025		0.0025		mg/L		12/11/20 07:38	12/15/20 18:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	360		10		mg/L			12/11/20 03:16	1
Chloride	12		2.0		mg/L			12/16/20 11:01	1
Fluoride	1.1		0.10		mg/L			12/22/20 17:34	1
Sulfate	74		15		mg/L			12/17/20 13:42	3

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	29.15				ft			12/10/20 10:20	1
Depth to Water (ft from MP)	30.88				ft			12/10/20 10:20	1
Elevation of well (ft from MP)	535.65				ft			12/10/20 10:20	1
Field pH	7.41				SU			12/10/20 10:20	1
Field Temperature	55.0				Degrees F			12/10/20 10:20	1
Ground Water Elevation	504.77				ft			12/10/20 10:20	1
Specific Conductance	646				umhos/cm			12/10/20 10:20	1
Well bottom elevation	452.72				ft			12/10/20 10:20	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G20S

Date Collected: 12/11/20 09:05
Date Received: 12/11/20 15:45

Lab Sample ID: 500-192056-11

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.042**		0.010		mg/L		12/14/20 08:25	12/14/20 20:13	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/14/20 08:25	12/14/20 22:08	1
Barium	**0.043**		0.0025		mg/L		12/14/20 08:25	12/14/20 22:08	1
Boron	**1.4**		0.050		mg/L		12/14/20 08:25	12/14/20 22:08	1
Calcium	**61**		0.20		mg/L		12/14/20 08:25	12/14/20 22:08	1
Cobalt	<0.0010		0.0010		mg/L		12/14/20 08:25	12/14/20 22:08	1
Lead	<0.00050	^+	0.00050		mg/L		12/14/20 08:25	12/14/20 22:08	1
Molybdenum	**0.022**		0.0050		mg/L		12/14/20 08:25	12/14/20 22:08	1
Selenium	<0.0025		0.0025		mg/L		12/14/20 08:25	12/14/20 22:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**390**		10		mg/L			12/15/20 02:24	1
Chloride	**14**		2.0		mg/L			12/16/20 11:05	1
Fluoride	**0.89**		0.10		mg/L			12/22/20 17:41	1
Sulfate	**69**		15		mg/L			12/17/20 13:42	3

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**46.86**				ft			12/11/20 09:05	1
Depth to Water (ft from MP)	**49.64**				ft			12/11/20 09:05	1
Elevation of well (ft from MP)	**580.94**				ft			12/11/20 09:05	1
Field pH	**7.41**				SU			12/11/20 09:05	1
Field Temperature	**46.0**				Degrees F			12/11/20 09:05	1
Ground Water Elevation	**531.30**				ft			12/11/20 09:05	1
Specific Conductance	**632**				umhos/cm			12/11/20 09:05	1
Well bottom elevation	**442.28**				ft			12/11/20 09:05	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G45S

Date Collected: 12/11/20 12:42
Date Received: 12/11/20 15:45

Lab Sample ID: 500-192056-12

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.038		0.010		mg/L		12/14/20 08:25	12/14/20 20:26	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.0010		mg/L		12/14/20 08:25	12/14/20 22:11	1
Barium	0.042		0.0025		mg/L		12/14/20 08:25	12/14/20 22:11	1
Boron	0.70		0.050		mg/L		12/14/20 08:25	12/14/20 22:11	1
Calcium	120		0.20		mg/L		12/14/20 08:25	12/14/20 22:11	1
Cobalt	<0.0010		0.0010		mg/L		12/14/20 08:25	12/14/20 22:11	1
Lead	<0.00050	^+	0.00050		mg/L		12/14/20 08:25	12/14/20 22:11	1
Molybdenum	0.012		0.0050		mg/L		12/14/20 08:25	12/14/20 22:11	1
Selenium	<0.0025		0.0025		mg/L		12/14/20 08:25	12/14/20 22:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	760		10		mg/L			12/15/20 02:32	1
Chloride	180		10		mg/L			12/16/20 11:39	5
Fluoride	0.38		0.10		mg/L			12/22/20 17:44	1
Sulfate	220		50		mg/L			12/17/20 13:42	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	62.48				ft			12/11/20 12:42	1
Depth to Water (ft from MP)	65.45				ft			12/11/20 12:42	1
Elevation of well (ft from MP)	603.94				ft			12/11/20 12:42	1
Field pH	7.16				SU			12/11/20 12:42	1
Field Temperature	54.7				Degrees F			12/11/20 12:42	1
Ground Water Elevation	538.49				ft			12/11/20 12:42	1
Specific Conductance	1273				umhos/cm			12/11/20 12:42	1
Well bottom elevation	471.05				ft			12/11/20 12:42	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T01S

Date Collected: 12/14/20 09:06
Date Received: 12/14/20 15:35

Lab Sample ID: 500-192056-13

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.011		0.010		mg/L		12/15/20 07:01	12/16/20 15:14	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.011		0.0010		mg/L		12/15/20 07:01	12/15/20 23:13	1
Barium	0.040		0.0025		mg/L		12/15/20 07:01	12/15/20 23:13	1
Boron	3.8		0.050		mg/L		12/15/20 07:01	12/15/20 23:13	1
Calcium	48		0.20		mg/L		12/15/20 07:01	12/15/20 23:13	1
Cobalt	<0.0010		0.0010		mg/L		12/15/20 07:01	12/15/20 23:13	1
Lead	<0.00050		0.00050		mg/L		12/15/20 07:01	12/15/20 23:13	1
Molybdenum	0.33		0.0050		mg/L		12/15/20 07:01	12/16/20 13:19	1
Selenium	<0.0025		0.0025		mg/L		12/15/20 07:01	12/16/20 13:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	870		10		mg/L			12/15/20 02:37	1
Chloride	120		10		mg/L			12/16/20 11:39	5
Fluoride	1.3		0.10		mg/L			12/22/20 17:48	1
Sulfate	400		50		mg/L			12/17/20 13:43	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	116.82				ft			12/14/20 09:06	1
Depth to Water (ft from MP)	119.30				ft			12/14/20 09:06	1
Elevation of well (ft from MP)	621.71				ft			12/14/20 09:06	1
Field pH	7.44				SU			12/14/20 09:06	1
Field Temperature	38.3				Degrees F			12/14/20 09:06	1
Ground Water Elevation	502.41				ft			12/14/20 09:06	1
Specific Conductance	1255				umhos/cm			12/14/20 09:06	1
Well bottom elevation	451.46				ft			12/14/20 09:06	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T06S

Date Collected: 12/14/20 11:25
Date Received: 12/14/20 15:35

Lab Sample ID: 500-192056-14

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.028**		0.010		mg/L		12/15/20 07:01	12/16/20 15:18	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/15/20 07:01	12/15/20 23:17	1
Barium	**0.031**		0.0025		mg/L		12/15/20 07:01	12/15/20 23:17	1
Boron	**0.69**		0.050		mg/L		12/15/20 07:01	12/15/20 23:17	1
Calcium	**82**		0.20		mg/L		12/15/20 07:01	12/15/20 23:17	1
Cobalt	<0.0010		0.0010		mg/L		12/15/20 07:01	12/15/20 23:17	1
Lead	<0.00050		0.00050		mg/L		12/15/20 07:01	12/15/20 23:17	1
Molybdenum	**0.011**		0.0050		mg/L		12/15/20 07:01	12/16/20 13:23	1
Selenium	<0.0025		0.0025		mg/L		12/15/20 07:01	12/16/20 13:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**450**		10		mg/L			12/17/20 01:22	1
Chloride	**13**		2.0		mg/L			12/16/20 11:11	1
Fluoride	**0.51**		0.10		mg/L			12/22/20 17:50	1
Sulfate	**100**		15		mg/L			12/17/20 13:43	3

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**110.32**				ft			12/14/20 11:25	1
Depth to Water (ft from MP)	**112.62**				ft			12/14/20 11:25	1
Elevation of well (ft from MP)	**620.99**				ft			12/14/20 11:25	1
Field pH	**7.51**				SU			12/14/20 11:25	1
Field Temperature	**45.3**				Degrees F			12/14/20 11:25	1
Ground Water Elevation	**508.37**				ft			12/14/20 11:25	1
Specific Conductance	**658**				umhos/cm			12/14/20 11:25	1
Well bottom elevation	**447.94**				ft			12/14/20 11:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: R08S

Date Collected: 12/14/20 14:17
Date Received: 12/14/20 15:35

Lab Sample ID: 500-192056-15

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.14		0.010		mg/L		12/15/20 07:01	12/16/20 15:21	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0015		0.0010		mg/L		12/15/20 07:01	12/15/20 23:20	1
Barium	0.040		0.0025		mg/L		12/15/20 07:01	12/15/20 23:20	1
Boron	8.0		1.0		mg/L		12/15/20 07:01	12/16/20 12:08	20
Calcium	130		0.20		mg/L		12/15/20 07:01	12/15/20 23:20	1
Cobalt	<0.0010		0.0010		mg/L		12/15/20 07:01	12/15/20 23:20	1
Lead	<0.00050		0.00050		mg/L		12/15/20 07:01	12/15/20 23:20	1
Molybdenum	0.38		0.0050		mg/L		12/15/20 07:01	12/16/20 13:34	1
Selenium	0.0081		0.0025		mg/L		12/15/20 07:01	12/16/20 13:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	700		10		mg/L			12/17/20 01:30	1
Chloride	88		10		mg/L			12/16/20 11:40	5
Fluoride	0.18		0.10		mg/L			12/22/20 17:56	1
Sulfate	400		50		mg/L			12/17/20 13:43	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	65.36				ft			12/14/20 14:17	1
Depth to Water (ft from MP)	67.91				ft			12/14/20 14:17	1
Elevation of well (ft from MP)	578.51				ft			12/14/20 14:17	1
Field pH	8.15				SU			12/14/20 14:17	1
Field Temperature	53.1				Degrees F			12/14/20 14:17	1
Ground Water Elevation	510.60				ft			12/14/20 14:17	1
Specific Conductance	941				umhos/cm			12/14/20 14:17	1
Well bottom elevation	453.08				ft			12/14/20 14:17	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T03S

Date Collected: 12/15/20 09:13
Date Received: 12/15/20 15:00

Lab Sample ID: 500-192056-16

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.031		0.010		mg/L		12/15/20 17:29	12/16/20 10:12	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0013		0.0010		mg/L		12/15/20 17:29	12/16/20 14:20	1
Barium	0.11		0.0025		mg/L		12/15/20 17:29	12/16/20 14:20	1
Boron	1.4		0.25		mg/L		12/15/20 17:29	12/16/20 18:11	5
Calcium	140		0.20		mg/L		12/15/20 17:29	12/16/20 14:20	1
Cobalt	0.0015		0.0010		mg/L		12/15/20 17:29	12/16/20 14:20	1
Lead	<0.00050		0.00050		mg/L		12/15/20 17:29	12/16/20 14:20	1
Molybdenum	0.14		0.0050		mg/L		12/15/20 17:29	12/16/20 14:20	1
Selenium	<0.0025		0.0025		mg/L		12/15/20 17:29	12/16/20 14:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	960		10		mg/L			12/17/20 01:32	1
Chloride	170	F1	10		mg/L			12/16/20 11:40	5
Fluoride	0.27		0.10		mg/L			12/22/20 17:59	1
Sulfate	280		50		mg/L			12/17/20 13:43	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	133.35				ft			12/15/20 09:13	1
Depth to Water (ft from MP)	136.43				ft			12/15/20 09:13	1
Elevation of well (ft from MP)	629.74				ft			12/15/20 09:13	1
Field pH	7.01				SU			12/15/20 09:13	1
Field Temperature	50.7				Degrees F			12/15/20 09:13	1
Ground Water Elevation	493.31				ft			12/15/20 09:13	1
Specific Conductance	1240				umhos/cm			12/15/20 09:13	1
Well bottom elevation	456.70				ft			12/15/20 09:13	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G46S

Date Collected: 12/15/20 10:22
Date Received: 12/15/20 15:00

Lab Sample ID: 500-192056-17

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.21		0.010		mg/L		12/15/20 17:29	12/16/20 10:34	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.27		0.0010		mg/L		12/15/20 17:29	12/16/20 14:37	1
Barium	0.075		0.0025		mg/L		12/15/20 17:29	12/16/20 14:37	1
Boron	10		5.0		mg/L		12/15/20 17:29	12/16/20 18:28	100
Calcium	120		0.20		mg/L		12/15/20 17:29	12/16/20 14:37	1
Cobalt	<0.0010		0.0010		mg/L		12/15/20 17:29	12/16/20 14:37	1
Lead	0.00085		0.00050		mg/L		12/15/20 17:29	12/16/20 14:37	1
Molybdenum	1.5		0.0050		mg/L		12/15/20 17:29	12/16/20 14:37	1
Selenium	<0.0025		0.0025		mg/L		12/15/20 17:29	12/16/20 14:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			12/17/20 01:35	1
Chloride	73		2.0		mg/L			12/16/20 11:14	1
Fluoride	0.35		0.10		mg/L			12/22/20 18:12	1
Sulfate	540		100		mg/L			12/17/20 13:44	20

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	99.08				ft			12/15/20 10:22	1
Depth to Water (ft from MP)	101.78				ft			12/15/20 10:22	1
Elevation of well (ft from MP)	601.34				ft			12/15/20 10:22	1
Field pH	7.74				SU			12/15/20 10:22	1
Field Temperature	52.7				Degrees F			12/15/20 10:22	1
Ground Water Elevation	499.56				ft			12/15/20 10:22	1
Specific Conductance	1156				umhos/cm			12/15/20 10:22	1
Well bottom elevation	453.62				ft			12/15/20 10:22	1

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: T04S

Date Collected: 12/15/20 13:25
Date Received: 12/15/20 15:00

Lab Sample ID: 500-192056-18

Matrix: Water

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	0				ft			12/15/20 13:25	1
Depth to Water (ft from MP)	0				ft			12/15/20 13:25	1
Elevation of well (ft from MP)	631.35				ft			12/15/20 13:25	1
Field pH	0				SU			12/15/20 13:25	1
Field Temperature	0				Degrees F			12/15/20 13:25	1
Ground Water Elevation	0				ft			12/15/20 13:25	1
Specific Conductance	0				umhos/cm			12/15/20 13:25	1
Well bottom elevation	458.07				ft			12/15/20 13:25	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G44S

Date Collected: 12/15/20 13:49
Date Received: 12/15/20 15:00

Lab Sample ID: 500-192056-19

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	**0.030**		0.010		mg/L		12/15/20 17:29	12/16/20 10:38	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/15/20 17:29	12/16/20 14:40	1
Barium	**0.062**		0.0025		mg/L		12/15/20 17:29	12/16/20 14:40	1
Boron	**1.7**		0.25		mg/L		12/15/20 17:29	12/16/20 18:32	5
Calcium	**140**		0.20		mg/L		12/15/20 17:29	12/16/20 14:40	1
Cobalt	<0.0010		0.0010		mg/L		12/15/20 17:29	12/16/20 14:40	1
Lead	<0.00050		0.00050		mg/L		12/15/20 17:29	12/16/20 14:40	1
Molybdenum	**0.28**		0.0050		mg/L		12/15/20 17:29	12/16/20 14:40	1
Selenium	<0.0025		0.0025		mg/L		12/15/20 17:29	12/16/20 14:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	**650**		10		mg/L			12/17/20 01:37	1
Chloride	**52**		2.0		mg/L			12/16/20 11:15	1
Fluoride	**0.25**		0.10		mg/L			12/22/20 18:16	1
Sulfate	**180**		25		mg/L			12/17/20 13:45	5

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	**79.24**				ft			12/15/20 13:49	1
Depth to Water (ft from MP)	**81.42**				ft			12/15/20 13:49	1
Elevation of well (ft from MP)	**586.49**				ft			12/15/20 13:49	1
Field pH	**7.17**				SU			12/15/20 13:49	1
Field Temperature	**50.9**				Degrees F			12/15/20 13:49	1
Ground Water Elevation	**505.07**				ft			12/15/20 13:49	1
Specific Conductance	**838**				umhos/cm			12/15/20 13:49	1
Well bottom elevation	**455.11**				ft			12/15/20 13:49	1

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: R32S

Date Collected: 12/16/20 08:54
Date Received: 12/16/20 13:10

Lab Sample ID: 500-192056-20

Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.11		0.010		mg/L		12/16/20 18:00	12/17/20 08:50	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0025		0.0010		mg/L		12/16/20 18:00	12/17/20 14:14	1
Barium	0.038		0.0025		mg/L		12/16/20 18:00	12/17/20 14:14	1
Boron	6.1		1.0		mg/L		12/16/20 18:00	12/17/20 19:08	20
Calcium	150		0.20		mg/L		12/16/20 18:00	12/17/20 14:14	1
Cobalt	<0.0010		0.0010		mg/L		12/16/20 18:00	12/17/20 14:14	1
Lead	<0.00050	^+	0.00050		mg/L		12/16/20 18:00	12/17/20 14:14	1
Molybdenum	0.75		0.0050		mg/L		12/16/20 18:00	12/17/20 14:14	1
Selenium	<0.0025	F1	0.0025		mg/L		12/16/20 18:00	12/17/20 14:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	840		10		mg/L			12/17/20 01:40	1
Chloride	66	F1	2.0		mg/L			12/22/20 14:44	1
Fluoride	0.34		0.10		mg/L			12/22/20 18:22	1
Sulfate	430		50		mg/L			12/17/20 13:45	10

Method: Field Sampling - Field Sampling

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
Depth to water from land surface	18.41				ft			12/16/20 08:54	1
Depth to Water (ft from MP)	20.44				ft			12/16/20 08:54	1
Elevation of well (ft from MP)	536.91				ft			12/16/20 08:54	1
Field pH	7.43				SU			12/16/20 08:54	1
Field Temperature	51.8				Degrees F			12/16/20 08:54	1
Ground Water Elevation	516.47				ft			12/16/20 08:54	1
Specific Conductance	882.				umhos/cm			12/16/20 08:54	1
Well bottom elevation	457.84				ft			12/16/20 08:54	1

Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Metals

Prep Batch: 575753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total Recoverable	Water	3005A	
500-192056-2	G48S	Total Recoverable	Water	3005A	
500-192056-3	G47S	Total Recoverable	Water	3005A	
MB 500-575753/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-575753/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 575869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total Recoverable	Water	6010C	575753
500-192056-2	G48S	Total Recoverable	Water	6010C	575753
500-192056-3	G47S	Total Recoverable	Water	6010C	575753
MB 500-575753/1-A	Method Blank	Total Recoverable	Water	6010C	575753
LCS 500-575753/2-A	Lab Control Sample	Total Recoverable	Water	6010C	575753

Prep Batch: 575895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-4	T09S	Total Recoverable	Water	3005A	
500-192056-5	DUP	Total Recoverable	Water	3005A	
500-192056-6	T05S	Total Recoverable	Water	3005A	
MB 500-575895/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-575895/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 576042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total Recoverable	Water	6020A	575753
500-192056-2	G48S	Total Recoverable	Water	6020A	575753
500-192056-3	G47S	Total Recoverable	Water	6020A	575753
MB 500-575753/1-A	Method Blank	Total Recoverable	Water	6020A	575753
LCS 500-575753/2-A	Lab Control Sample	Total Recoverable	Water	6020A	575753

Prep Batch: 576150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-7	T08S	Total Recoverable	Water	3005A	
500-192056-8	T02S	Total Recoverable	Water	3005A	
500-192056-9	G31S	Total Recoverable	Water	3005A	
MB 500-576150/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-576150/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 576224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-4	T09S	Total Recoverable	Water	6010C	575895
500-192056-5	DUP	Total Recoverable	Water	6010C	575895
500-192056-6	T05S	Total Recoverable	Water	6010C	575895
MB 500-575895/1-A	Method Blank	Total Recoverable	Water	6010C	575895
LCS 500-575895/2-A	Lab Control Sample	Total Recoverable	Water	6010C	575895

Prep Batch: 576343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-10	G33S	Total Recoverable	Water	3005A	
MB 500-576343/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-576343/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 576582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-7	T08S	Total Recoverable	Water	6010C	576150
500-192056-8	T02S	Total Recoverable	Water	6010C	576150
500-192056-9	G31S	Total Recoverable	Water	6010C	576150
MB 500-576150/1-A	Method Blank	Total Recoverable	Water	6010C	576150
LCS 500-576150/2-A	Lab Control Sample	Total Recoverable	Water	6010C	576150

Prep Batch: 576613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-11	G20S	Total Recoverable	Water	3005A	
500-192056-12	G45S	Total Recoverable	Water	3005A	
MB 500-576613/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-576613/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 576644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-4	T09S	Total Recoverable	Water	6020A	575895
500-192056-5	DUP	Total Recoverable	Water	6020A	575895
500-192056-6	T05S	Total Recoverable	Water	6020A	575895
500-192056-10	G33S	Total Recoverable	Water	6020A	576343
MB 500-575895/1-A	Method Blank	Total Recoverable	Water	6020A	575895
MB 500-576343/1-A	Method Blank	Total Recoverable	Water	6020A	576343
LCS 500-575895/2-A	Lab Control Sample	Total Recoverable	Water	6020A	575895
LCS 500-576343/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576343

Analysis Batch: 576684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total Recoverable	Water	6020A	575753
500-192056-2	G48S	Total Recoverable	Water	6020A	575753
500-192056-3	G47S	Total Recoverable	Water	6020A	575753
MB 500-575753/1-A	Method Blank	Total Recoverable	Water	6020A	575753
LCS 500-575753/2-A	Lab Control Sample	Total Recoverable	Water	6020A	575753

Prep Batch: 576797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-13	T01S	Total Recoverable	Water	3005A	
500-192056-14	T06S	Total Recoverable	Water	3005A	
500-192056-15	R08S	Total Recoverable	Water	3005A	
MB 500-576797/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-576797/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 576808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-11	G20S	Total Recoverable	Water	6010C	576613
500-192056-12	G45S	Total Recoverable	Water	6010C	576613
MB 500-576613/1-A	Method Blank	Total Recoverable	Water	6010C	576613
LCS 500-576613/2-A	Lab Control Sample	Total Recoverable	Water	6010C	576613

Analysis Batch: 576826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-10	G33S	Total Recoverable	Water	6010C	576343
MB 500-576343/1-A	Method Blank	Total Recoverable	Water	6010C	576343

Metals (Continued)

Analysis Batch: 576826 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-576343/2-A	Lab Control Sample	Total Recoverable	Water	6010C	576343

Analysis Batch: 576866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-4	T09S	Total Recoverable	Water	6020A	575895
500-192056-5	DUP	Total Recoverable	Water	6020A	575895
500-192056-6	T05S	Total Recoverable	Water	6020A	575895
500-192056-7	T08S	Total Recoverable	Water	6020A	576150
500-192056-8	T02S	Total Recoverable	Water	6020A	576150
500-192056-9	G31S	Total Recoverable	Water	6020A	576150
MB 500-575895/1-A	Method Blank	Total Recoverable	Water	6020A	575895
MB 500-576150/1-A	Method Blank	Total Recoverable	Water	6020A	576150
LCS 500-575895/2-A	Lab Control Sample	Total Recoverable	Water	6020A	575895
LCS 500-576150/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576150

Analysis Batch: 576882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total Recoverable	Water	6020A	575753
500-192056-2	G48S	Total Recoverable	Water	6020A	575753
500-192056-3	G47S	Total Recoverable	Water	6020A	575753
500-192056-11	G20S	Total Recoverable	Water	6020A	576613
500-192056-12	G45S	Total Recoverable	Water	6020A	576613
MB 500-575753/1-A	Method Blank	Total Recoverable	Water	6020A	575753
MB 500-576613/1-A	Method Blank	Total Recoverable	Water	6020A	576613
LCS 500-575753/2-A	Lab Control Sample	Total Recoverable	Water	6020A	575753
LCS 500-576613/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576613

Prep Batch: 576951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-16	T03S	Total Recoverable	Water	3005A	
500-192056-17	G46S	Total Recoverable	Water	3005A	
500-192056-19	G44S	Total Recoverable	Water	3005A	
MB 500-576951/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-576951/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-192056-16 MS	T03S	Total Recoverable	Water	3005A	
500-192056-16 MSD	T03S	Total Recoverable	Water	3005A	
500-192056-16 DU	T03S	Total Recoverable	Water	3005A	

Analysis Batch: 577089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-4	T09S	Total Recoverable	Water	6020A	575895
500-192056-5	DUP	Total Recoverable	Water	6020A	575895
500-192056-6	T05S	Total Recoverable	Water	6020A	575895
500-192056-7	T08S	Total Recoverable	Water	6020A	576150
500-192056-8	T02S	Total Recoverable	Water	6020A	576150
500-192056-9	G31S	Total Recoverable	Water	6020A	576150
500-192056-10	G33S	Total Recoverable	Water	6020A	576343
500-192056-10	G33S	Total Recoverable	Water	6020A	576343
500-192056-13	T01S	Total Recoverable	Water	6020A	576797
500-192056-14	T06S	Total Recoverable	Water	6020A	576797
500-192056-15	R08S	Total Recoverable	Water	6020A	576797

Metals (Continued)

Analysis Batch: 577089 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-575895/1-A	Method Blank	Total Recoverable	Water	6020A	575895
MB 500-576150/1-A	Method Blank	Total Recoverable	Water	6020A	576150
MB 500-576343/1-A	Method Blank	Total Recoverable	Water	6020A	576343
MB 500-576797/1-A	Method Blank	Total Recoverable	Water	6020A	576797
LCS 500-575895/2-A	Lab Control Sample	Total Recoverable	Water	6020A	575895
LCS 500-576150/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576150
LCS 500-576343/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576343
LCS 500-576797/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576797

Analysis Batch: 577113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-16	T03S	Total Recoverable	Water	6010C	576951
500-192056-17	G46S	Total Recoverable	Water	6010C	576951
500-192056-19	G44S	Total Recoverable	Water	6010C	576951
MB 500-576951/1-A	Method Blank	Total Recoverable	Water	6010C	576951
LCS 500-576951/2-A	Lab Control Sample	Total Recoverable	Water	6010C	576951
500-192056-16 MS	T03S	Total Recoverable	Water	6010C	576951
500-192056-16 MSD	T03S	Total Recoverable	Water	6010C	576951
500-192056-16 DU	T03S	Total Recoverable	Water	6010C	576951

Analysis Batch: 577145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-7	T08S	Total Recoverable	Water	6020A	576150
500-192056-8	T02S	Total Recoverable	Water	6020A	576150
500-192056-9	G31S	Total Recoverable	Water	6020A	576150
500-192056-13	T01S	Total Recoverable	Water	6020A	576797
500-192056-14	T06S	Total Recoverable	Water	6020A	576797
500-192056-15	R08S	Total Recoverable	Water	6020A	576797
500-192056-15	R08S	Total Recoverable	Water	6020A	576797
500-192056-16	T03S	Total Recoverable	Water	6020A	576951
500-192056-17	G46S	Total Recoverable	Water	6020A	576951
500-192056-19	G44S	Total Recoverable	Water	6020A	576951
MB 500-576150/1-A	Method Blank	Total Recoverable	Water	6020A	576150
MB 500-576797/1-A	Method Blank	Total Recoverable	Water	6020A	576797
MB 500-576951/1-A	Method Blank	Total Recoverable	Water	6020A	576951
LCS 500-576150/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576150
LCS 500-576797/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576797
LCS 500-576951/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576951
500-192056-16 MS	T03S	Total Recoverable	Water	6020A	576951
500-192056-16 MSD	T03S	Total Recoverable	Water	6020A	576951
500-192056-16 DU	T03S	Total Recoverable	Water	6020A	576951

Prep Batch: 577169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-20	R32S	Total Recoverable	Water	3005A	
MB 500-577169/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-577169/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-192056-20 MS	R32S	Total Recoverable	Water	3005A	
500-192056-20 MSD	R32S	Total Recoverable	Water	3005A	
500-192056-20 DU	R32S	Total Recoverable	Water	3005A	

Metals

Analysis Batch: 577216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-13	T01S	Total Recoverable	Water	6010C	576797
500-192056-14	T06S	Total Recoverable	Water	6010C	576797
500-192056-15	R08S	Total Recoverable	Water	6010C	576797
MB 500-576797/1-A	Method Blank	Total Recoverable	Water	6010C	576797
LCS 500-576797/2-A	Lab Control Sample	Total Recoverable	Water	6010C	576797

Analysis Batch: 577277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-16	T03S	Total Recoverable	Water	6020A	576951
500-192056-17	G46S	Total Recoverable	Water	6020A	576951
500-192056-19	G44S	Total Recoverable	Water	6020A	576951
MB 500-576951/1-A	Method Blank	Total Recoverable	Water	6020A	576951
LCS 500-576951/2-A	Lab Control Sample	Total Recoverable	Water	6020A	576951
500-192056-16 MS	T03S	Total Recoverable	Water	6020A	576951
500-192056-16 MSD	T03S	Total Recoverable	Water	6020A	576951
500-192056-16 DU	T03S	Total Recoverable	Water	6020A	576951

Analysis Batch: 577331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-20	R32S	Total Recoverable	Water	6010C	577169
MB 500-577169/1-A	Method Blank	Total Recoverable	Water	6010C	577169
LCS 500-577169/2-A	Lab Control Sample	Total Recoverable	Water	6010C	577169
500-192056-20 MS	R32S	Total Recoverable	Water	6010C	577169
500-192056-20 MSD	R32S	Total Recoverable	Water	6010C	577169
500-192056-20 DU	R32S	Total Recoverable	Water	6010C	577169

Analysis Batch: 577364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-20	R32S	Total Recoverable	Water	6020A	577169
MB 500-577169/1-A	Method Blank	Total Recoverable	Water	6020A	577169
LCS 500-577169/2-A	Lab Control Sample	Total Recoverable	Water	6020A	577169
500-192056-20 MS	R32S	Total Recoverable	Water	6020A	577169
500-192056-20 MSD	R32S	Total Recoverable	Water	6020A	577169
500-192056-20 DU	R32S	Total Recoverable	Water	6020A	577169

Analysis Batch: 577514

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-20	R32S	Total Recoverable	Water	6020A	577169
MB 500-577169/1-A	Method Blank	Total Recoverable	Water	6020A	577169
LCS 500-577169/2-A	Lab Control Sample	Total Recoverable	Water	6020A	577169
500-192056-20 MS	R32S	Total Recoverable	Water	6020A	577169
500-192056-20 MSD	R32S	Total Recoverable	Water	6020A	577169
500-192056-20 DU	R32S	Total Recoverable	Water	6020A	577169

General Chemistry

Analysis Batch: 575750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total/NA	Water	SM 2540C	
500-192056-2	G48S	Total/NA	Water	SM 2540C	
MB 500-575750/1	Method Blank	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 575750 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-575750/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 575962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-3	G47S	Total/NA	Water	SM 2540C	
500-192056-4	T09S	Total/NA	Water	SM 2540C	
500-192056-5	DUP	Total/NA	Water	SM 2540C	
500-192056-6	T05S	Total/NA	Water	SM 2540C	
MB 500-575962/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-575962/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-192056-3 MS	G47S	Total/NA	Water	SM 2540C	
500-192056-3 DU	G47S	Total/NA	Water	SM 2540C	
500-192056-4 DU	T09S	Total/NA	Water	SM 2540C	

Analysis Batch: 576321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-7	T08S	Total/NA	Water	SM 2540C	
500-192056-8	T02S	Total/NA	Water	SM 2540C	
500-192056-9	G31S	Total/NA	Water	SM 2540C	
500-192056-10	G33S	Total/NA	Water	SM 2540C	
MB 500-576321/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-576321/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 576531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total/NA	Water	SM 4500 Cl- E	
500-192056-2	G48S	Total/NA	Water	SM 4500 Cl- E	
500-192056-3	G47S	Total/NA	Water	SM 4500 Cl- E	
500-192056-4	T09S	Total/NA	Water	SM 4500 Cl- E	
500-192056-5	DUP	Total/NA	Water	SM 4500 Cl- E	
500-192056-6	T05S	Total/NA	Water	SM 4500 Cl- E	
500-192056-7	T08S	Total/NA	Water	SM 4500 Cl- E	
500-192056-8	T02S	Total/NA	Water	SM 4500 Cl- E	
500-192056-9	G31S	Total/NA	Water	SM 4500 Cl- E	
MB 500-576531/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-576531/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-192056-4 MS	T09S	Total/NA	Water	SM 4500 Cl- E	
500-192056-4 MSD	T09S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 576777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-11	G20S	Total/NA	Water	SM 2540C	
500-192056-12	G45S	Total/NA	Water	SM 2540C	
500-192056-13	T01S	Total/NA	Water	SM 2540C	
MB 500-576777/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-576777/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-192056-11 MS	G20S	Total/NA	Water	SM 2540C	
500-192056-11 DU	G20S	Total/NA	Water	SM 2540C	
500-192056-12 DU	G45S	Total/NA	Water	SM 2540C	

General Chemistry

Analysis Batch: 577109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-10	G33S	Total/NA	Water	SM 4500 Cl- E	
500-192056-11	G20S	Total/NA	Water	SM 4500 Cl- E	
500-192056-12	G45S	Total/NA	Water	SM 4500 Cl- E	
500-192056-13	T01S	Total/NA	Water	SM 4500 Cl- E	
500-192056-14	T06S	Total/NA	Water	SM 4500 Cl- E	
500-192056-15	R08S	Total/NA	Water	SM 4500 Cl- E	
500-192056-16	T03S	Total/NA	Water	SM 4500 Cl- E	
500-192056-17	G46S	Total/NA	Water	SM 4500 Cl- E	
500-192056-19	G44S	Total/NA	Water	SM 4500 Cl- E	
MB 500-577109/39	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-577109/40	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-192056-10 MS	G33S	Total/NA	Water	SM 4500 Cl- E	
500-192056-10 MSD	G33S	Total/NA	Water	SM 4500 Cl- E	
500-192056-16 MS	T03S	Total/NA	Water	SM 4500 Cl- E	
500-192056-16 MSD	T03S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 577212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-14	T06S	Total/NA	Water	SM 2540C	
500-192056-15	R08S	Total/NA	Water	SM 2540C	
500-192056-16	T03S	Total/NA	Water	SM 2540C	
500-192056-17	G46S	Total/NA	Water	SM 2540C	
500-192056-19	G44S	Total/NA	Water	SM 2540C	
500-192056-20	R32S	Total/NA	Water	SM 2540C	
MB 500-577212/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-577212/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-192056-14 MS	T06S	Total/NA	Water	SM 2540C	
500-192056-14 DU	T06S	Total/NA	Water	SM 2540C	

Analysis Batch: 577347

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total/NA	Water	SM 4500 SO4 E	
500-192056-2	G48S	Total/NA	Water	SM 4500 SO4 E	
500-192056-3	G47S	Total/NA	Water	SM 4500 SO4 E	
500-192056-4	T09S	Total/NA	Water	SM 4500 SO4 E	
500-192056-5	DUP	Total/NA	Water	SM 4500 SO4 E	
500-192056-6	T05S	Total/NA	Water	SM 4500 SO4 E	
500-192056-7	T08S	Total/NA	Water	SM 4500 SO4 E	
500-192056-8	T02S	Total/NA	Water	SM 4500 SO4 E	
500-192056-9	G31S	Total/NA	Water	SM 4500 SO4 E	
500-192056-10	G33S	Total/NA	Water	SM 4500 SO4 E	
500-192056-11	G20S	Total/NA	Water	SM 4500 SO4 E	
500-192056-12	G45S	Total/NA	Water	SM 4500 SO4 E	
500-192056-13	T01S	Total/NA	Water	SM 4500 SO4 E	
500-192056-14	T06S	Total/NA	Water	SM 4500 SO4 E	
500-192056-15	R08S	Total/NA	Water	SM 4500 SO4 E	
500-192056-16	T03S	Total/NA	Water	SM 4500 SO4 E	
500-192056-17	G46S	Total/NA	Water	SM 4500 SO4 E	
500-192056-19	G44S	Total/NA	Water	SM 4500 SO4 E	
500-192056-20	R32S	Total/NA	Water	SM 4500 SO4 E	
MB 500-577347/15	Method Blank	Total/NA	Water	SM 4500 SO4 E	

General Chemistry (Continued)

Analysis Batch: 577347 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-577347/40	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-577347/16	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
LCS 500-577347/43	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-192056-1 MS	G30S	Total/NA	Water	SM 4500 SO4 E	
500-192056-1 MSD	G30S	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 578099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-20	R32S	Total/NA	Water	SM 4500 Cl- E	
MB 500-578099/39	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-578099/40	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-192056-20 MS	R32S	Total/NA	Water	SM 4500 Cl- E	
500-192056-20 MSD	R32S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 578222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total/NA	Water	SM 4500 F C	
500-192056-2	G48S	Total/NA	Water	SM 4500 F C	
500-192056-3	G47S	Total/NA	Water	SM 4500 F C	
500-192056-4	T09S	Total/NA	Water	SM 4500 F C	
500-192056-5	DUP	Total/NA	Water	SM 4500 F C	
500-192056-6	T05S	Total/NA	Water	SM 4500 F C	
500-192056-7	T08S	Total/NA	Water	SM 4500 F C	
500-192056-8	T02S	Total/NA	Water	SM 4500 F C	
500-192056-9	G31S	Total/NA	Water	SM 4500 F C	
500-192056-10	G33S	Total/NA	Water	SM 4500 F C	
500-192056-11	G20S	Total/NA	Water	SM 4500 F C	
500-192056-12	G45S	Total/NA	Water	SM 4500 F C	
500-192056-13	T01S	Total/NA	Water	SM 4500 F C	
500-192056-14	T06S	Total/NA	Water	SM 4500 F C	
500-192056-15	R08S	Total/NA	Water	SM 4500 F C	
500-192056-16	T03S	Total/NA	Water	SM 4500 F C	
500-192056-17	G46S	Total/NA	Water	SM 4500 F C	
500-192056-19	G44S	Total/NA	Water	SM 4500 F C	
500-192056-20	R32S	Total/NA	Water	SM 4500 F C	
MB 500-578222/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-578222/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-192056-1 MS	G30S	Total/NA	Water	SM 4500 F C	
500-192056-1 MSD	G30S	Total/NA	Water	SM 4500 F C	

Field Service / Mobile Lab

Analysis Batch: 576226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-1	G30S	Total/NA	Water	Field Sampling	
500-192056-2	G48S	Total/NA	Water	Field Sampling	
500-192056-3	G47S	Total/NA	Water	Field Sampling	
500-192056-4	T09S	Total/NA	Water	Field Sampling	
500-192056-5	DUP	Total/NA	Water	Field Sampling	
500-192056-6	T05S	Total/NA	Water	Field Sampling	
500-192056-7	T08S	Total/NA	Water	Field Sampling	

Field Service / Mobile Lab (Continued)

Analysis Batch: 576226 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-192056-8	T02S	Total/NA	Water	Field Sampling	
500-192056-9	G31S	Total/NA	Water	Field Sampling	
500-192056-10	G33S	Total/NA	Water	Field Sampling	
500-192056-11	G20S	Total/NA	Water	Field Sampling	
500-192056-12	G45S	Total/NA	Water	Field Sampling	
500-192056-13	T01S	Total/NA	Water	Field Sampling	
500-192056-14	T06S	Total/NA	Water	Field Sampling	
500-192056-15	R08S	Total/NA	Water	Field Sampling	
500-192056-16	T03S	Total/NA	Water	Field Sampling	
500-192056-17	G46S	Total/NA	Water	Field Sampling	
500-192056-18	T04S	Total/NA	Water	Field Sampling	
500-192056-19	G44S	Total/NA	Water	Field Sampling	
500-192056-20	R32S	Total/NA	Water	Field Sampling	

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-575753/1-A
Matrix: Water
Analysis Batch: 575869

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/08/20 06:21	12/08/20 12:43	1

Lab Sample ID: LCS 500-575753/2-A
Matrix: Water
Analysis Batch: 575869

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.522		mg/L		104	80 - 120

Lab Sample ID: MB 500-575895/1-A
Matrix: Water
Analysis Batch: 576224

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/08/20 17:57	12/10/20 10:27	1

Lab Sample ID: LCS 500-575895/2-A
Matrix: Water
Analysis Batch: 576224

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.529		mg/L		106	80 - 120

Lab Sample ID: MB 500-576150/1-A
Matrix: Water
Analysis Batch: 576582

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/10/20 07:37	12/11/20 23:59	1

Lab Sample ID: LCS 500-576150/2-A
Matrix: Water
Analysis Batch: 576582

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.527		mg/L		105	80 - 120

Lab Sample ID: MB 500-576343/1-A
Matrix: Water
Analysis Batch: 576826

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/11/20 07:38	12/14/20 11:54	1

Lab Sample ID: LCS 500-576343/2-A
Matrix: Water
Analysis Batch: 576826

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.513		mg/L		103	80 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-576613/1-A
Matrix: Water
Analysis Batch: 576808

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/14/20 08:25	12/14/20 20:06	1

Lab Sample ID: LCS 500-576613/2-A
Matrix: Water
Analysis Batch: 576808

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.532		mg/L		106	80 - 120

Lab Sample ID: MB 500-576797/1-A
Matrix: Water
Analysis Batch: 577216

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576797

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/15/20 07:01	12/16/20 15:08	1

Lab Sample ID: LCS 500-576797/2-A
Matrix: Water
Analysis Batch: 577216

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576797

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.532		mg/L		106	80 - 120

Lab Sample ID: MB 500-576951/1-A
Matrix: Water
Analysis Batch: 577113

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/15/20 17:29	12/16/20 10:05	1

Lab Sample ID: LCS 500-576951/2-A
Matrix: Water
Analysis Batch: 577113

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.515		mg/L		103	80 - 120

Lab Sample ID: 500-192056-16 MS
Matrix: Water
Analysis Batch: 577113

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.031		0.500	0.595		mg/L		113	75 - 125

Lab Sample ID: 500-192056-16 MSD
Matrix: Water
Analysis Batch: 577113

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.031		0.500	0.595		mg/L		113	75 - 125	0	20

Method: 6010C - Metals (ICP)

Lab Sample ID: 500-192056-16 DU
Matrix: Water
Analysis Batch: 577113

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lithium	0.031			0.0323		mg/L				5	20

Lab Sample ID: MB 500-577169/1-A
Matrix: Water
Analysis Batch: 577331

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		12/16/20 18:00	12/17/20 08:43	1

Lab Sample ID: LCS 500-577169/2-A
Matrix: Water
Analysis Batch: 577331

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium			0.500	0.545		mg/L		109	80 - 120		

Lab Sample ID: 500-192056-20 MS
Matrix: Water
Analysis Batch: 577331

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lithium	0.11		0.500	0.654		mg/L		110	75 - 125		

Lab Sample ID: 500-192056-20 MSD
Matrix: Water
Analysis Batch: 577331

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	0.11		0.500	0.645		mg/L		108	75 - 125	1	20

Lab Sample ID: 500-192056-20 DU
Matrix: Water
Analysis Batch: 577331

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Lithium	0.11			0.106		mg/L				0.4	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-575753/1-A
Matrix: Water
Analysis Batch: 576042

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010		mg/L		12/08/20 06:21	12/08/20 16:27	1
Lead	<0.00050		0.00050		mg/L		12/08/20 06:21	12/08/20 16:27	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-575753/1-A
Matrix: Water
Analysis Batch: 576684

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/08/20 06:21	12/14/20 12:15	1

Lab Sample ID: MB 500-575753/1-A
Matrix: Water
Analysis Batch: 576882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/08/20 06:21	12/14/20 17:40	1
Barium	<0.0025		0.0025		mg/L		12/08/20 06:21	12/14/20 17:40	1
Calcium	<0.20		0.20		mg/L		12/08/20 06:21	12/14/20 17:40	1
Molybdenum	<0.0050		0.0050		mg/L		12/08/20 06:21	12/14/20 17:40	1
Selenium	<0.0025		0.0025		mg/L		12/08/20 06:21	12/14/20 17:40	1

Lab Sample ID: LCS 500-575753/2-A
Matrix: Water
Analysis Batch: 576042

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.500	0.470		mg/L		94	80 - 120
Lead	0.100	0.0982		mg/L		98	80 - 120

Lab Sample ID: LCS 500-575753/2-A
Matrix: Water
Analysis Batch: 576684

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.06		mg/L		106	80 - 120

Lab Sample ID: LCS 500-575753/2-A
Matrix: Water
Analysis Batch: 576882

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.103		mg/L		103	80 - 120
Barium	2.00	2.05		mg/L		102	80 - 120
Calcium	10.0	10.4		mg/L		104	80 - 120
Molybdenum	1.00	1.01		mg/L		101	80 - 120
Selenium	0.100	0.101		mg/L		101	80 - 120

Lab Sample ID: MB 500-575895/1-A
Matrix: Water
Analysis Batch: 576644

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		12/08/20 17:57	12/11/20 18:29	1
Calcium	<0.20		0.20		mg/L		12/08/20 17:57	12/11/20 18:29	1
Cobalt	<0.0010		0.0010		mg/L		12/08/20 17:57	12/11/20 18:29	1
Lead	<0.00050		0.00050		mg/L		12/08/20 17:57	12/11/20 18:29	1
Molybdenum	<0.0050		0.0050		mg/L		12/08/20 17:57	12/11/20 18:29	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-575895/1-A
Matrix: Water
Analysis Batch: 576866

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/08/20 17:57	12/14/20 16:27	1
Selenium	<0.0025		0.0025		mg/L		12/08/20 17:57	12/14/20 16:27	1

Lab Sample ID: MB 500-575895/1-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/08/20 17:57	12/15/20 15:13	1

Lab Sample ID: LCS 500-575895/2-A
Matrix: Water
Analysis Batch: 576644

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.05		mg/L		103	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Cobalt	0.500	0.488		mg/L		98	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Molybdenum	1.00	0.992		mg/L		99	80 - 120

Lab Sample ID: LCS 500-575895/2-A
Matrix: Water
Analysis Batch: 576866

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0998		mg/L		100	80 - 120
Selenium	0.100	0.0971		mg/L		97	80 - 120

Lab Sample ID: LCS 500-575895/2-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 575895

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.07		mg/L		107	80 - 120

Lab Sample ID: MB 500-576150/1-A
Matrix: Water
Analysis Batch: 576866

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/10/20 07:37	12/14/20 17:07	1
Barium	<0.0025		0.0025		mg/L		12/10/20 07:37	12/14/20 17:07	1
Calcium	<0.20		0.20		mg/L		12/10/20 07:37	12/14/20 17:07	1
Selenium	<0.0025		0.0025		mg/L		12/10/20 07:37	12/14/20 17:07	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-576150/1-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/10/20 07:37	12/15/20 17:07	1
Molybdenum	<0.0050		0.0050		mg/L		12/10/20 07:37	12/15/20 17:07	1

Lab Sample ID: MB 500-576150/1-A
Matrix: Water
Analysis Batch: 577145

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010		mg/L		12/10/20 07:37	12/16/20 13:39	1
Lead	<0.00050		0.00050		mg/L		12/10/20 07:37	12/16/20 13:39	1

Lab Sample ID: LCS 500-576150/2-A
Matrix: Water
Analysis Batch: 576866

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.100		mg/L		100	80 - 120
Barium	2.00	1.66		mg/L		83	80 - 120
Calcium	10.0	11.8		mg/L		118	80 - 120
Selenium	0.100	0.0989		mg/L		99	80 - 120

Lab Sample ID: LCS 500-576150/2-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.07		mg/L		107	80 - 120
Molybdenum	1.00	0.975		mg/L		97	80 - 120

Lab Sample ID: LCS 500-576150/2-A
Matrix: Water
Analysis Batch: 577145

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	0.500	0.542		mg/L		108	80 - 120
Lead	0.100	0.112		mg/L		112	80 - 120

Lab Sample ID: MB 500-576343/1-A
Matrix: Water
Analysis Batch: 576644

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0025		0.0025		mg/L		12/11/20 07:38	12/11/20 19:39	1
Calcium	<0.20		0.20		mg/L		12/11/20 07:38	12/11/20 19:39	1
Lead	<0.00050		0.00050		mg/L		12/11/20 07:38	12/11/20 19:39	1
Molybdenum	<0.0050		0.0050		mg/L		12/11/20 07:38	12/11/20 19:39	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-576343/1-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/11/20 07:38	12/15/20 16:25	1
Boron	<0.050		0.050		mg/L		12/11/20 07:38	12/15/20 16:25	1
Cobalt	<0.0010		0.0010		mg/L		12/11/20 07:38	12/15/20 16:25	1
Selenium	<0.0025		0.0025		mg/L		12/11/20 07:38	12/15/20 16:25	1

Lab Sample ID: LCS 500-576343/2-A
Matrix: Water
Analysis Batch: 576644

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	2.00	2.15		mg/L		107	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Molybdenum	1.00	0.996		mg/L		100	80 - 120

Lab Sample ID: LCS 500-576343/2-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0927		mg/L		93	80 - 120
Boron	1.00	1.05		mg/L		105	80 - 120
Cobalt	0.500	0.522		mg/L		104	80 - 120
Selenium	0.100	0.0969		mg/L		97	80 - 120

Lab Sample ID: MB 500-576613/1-A
Matrix: Water
Analysis Batch: 576882

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/14/20 08:25	12/14/20 21:13	1
Barium	<0.0025		0.0025		mg/L		12/14/20 08:25	12/14/20 21:13	1
Boron	<0.050	^+	0.050		mg/L		12/14/20 08:25	12/14/20 21:13	1
Calcium	<0.20		0.20		mg/L		12/14/20 08:25	12/14/20 21:13	1
Cobalt	<0.0010		0.0010		mg/L		12/14/20 08:25	12/14/20 21:13	1
Lead	<0.00050	^+	0.00050		mg/L		12/14/20 08:25	12/14/20 21:13	1
Molybdenum	<0.0050		0.0050		mg/L		12/14/20 08:25	12/14/20 21:13	1
Selenium	<0.0025		0.0025		mg/L		12/14/20 08:25	12/14/20 21:13	1

Lab Sample ID: LCS 500-576613/2-A
Matrix: Water
Analysis Batch: 576882

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0944		mg/L		94	80 - 120
Barium	2.00	2.02		mg/L		101	80 - 120
Calcium	10.0	10.3		mg/L		103	80 - 120
Cobalt	0.500	0.538		mg/L		108	80 - 120
Lead	0.100	0.112	^+	mg/L		112	80 - 120

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-576613/2-A
Matrix: Water
Analysis Batch: 576882

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	1.00	0.990		mg/L		99	80 - 120
Selenium	0.100	0.0952		mg/L		95	80 - 120

Lab Sample ID: MB 500-576797/1-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576797

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/15/20 07:01	12/15/20 23:06	1
Barium	<0.0025		0.0025		mg/L		12/15/20 07:01	12/15/20 23:06	1
Boron	<0.050		0.050		mg/L		12/15/20 07:01	12/15/20 23:06	1
Calcium	<0.20		0.20		mg/L		12/15/20 07:01	12/15/20 23:06	1
Cobalt	<0.0010		0.0010		mg/L		12/15/20 07:01	12/15/20 23:06	1
Lead	<0.00050		0.00050		mg/L		12/15/20 07:01	12/15/20 23:06	1

Lab Sample ID: MB 500-576797/1-A
Matrix: Water
Analysis Batch: 577145

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576797

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Molybdenum	<0.0050		0.0050		mg/L		12/15/20 07:01	12/16/20 13:12	1
Selenium	<0.0025		0.0025		mg/L		12/15/20 07:01	12/16/20 13:12	1

Lab Sample ID: LCS 500-576797/2-A
Matrix: Water
Analysis Batch: 577089

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576797

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0964		mg/L		96	80 - 120
Barium	2.00	1.84		mg/L		92	80 - 120
Boron	1.00	0.903		mg/L		90	80 - 120
Calcium	10.0	9.31		mg/L		93	80 - 120
Cobalt	0.500	0.475		mg/L		95	80 - 120
Lead	0.100	0.0972		mg/L		97	80 - 120

Lab Sample ID: LCS 500-576797/2-A
Matrix: Water
Analysis Batch: 577145

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576797

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Molybdenum	1.00	1.00		mg/L		100	80 - 120
Selenium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: MB 500-576951/1-A
Matrix: Water
Analysis Batch: 577145

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/15/20 17:29	12/16/20 14:13	1
Barium	<0.0025		0.0025		mg/L		12/15/20 17:29	12/16/20 14:13	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-576951/1-A
Matrix: Water
Analysis Batch: 577145

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.20		0.20		mg/L		12/15/20 17:29	12/16/20 14:13	1
Cobalt	<0.0010		0.0010		mg/L		12/15/20 17:29	12/16/20 14:13	1
Lead	<0.00050		0.00050		mg/L		12/15/20 17:29	12/16/20 14:13	1
Molybdenum	<0.0050		0.0050		mg/L		12/15/20 17:29	12/16/20 14:13	1
Selenium	<0.0025		0.0025		mg/L		12/15/20 17:29	12/16/20 14:13	1

Lab Sample ID: MB 500-576951/1-A
Matrix: Water
Analysis Batch: 577277

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/15/20 17:29	12/16/20 18:04	1

Lab Sample ID: LCS 500-576951/2-A
Matrix: Water
Analysis Batch: 577145

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0911		mg/L		91	80 - 120
Barium	2.00	1.90		mg/L		95	80 - 120
Calcium	10.0	9.32		mg/L		93	80 - 120
Cobalt	0.500	0.526		mg/L		105	80 - 120
Lead	0.100	0.110		mg/L		110	80 - 120
Molybdenum	1.00	0.961		mg/L		96	80 - 120
Selenium	0.100	0.0989		mg/L		99	80 - 120

Lab Sample ID: LCS 500-576951/2-A
Matrix: Water
Analysis Batch: 577277

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.955		mg/L		96	80 - 120

Lab Sample ID: 500-192056-16 MS
Matrix: Water
Analysis Batch: 577145

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0013		0.100	0.0960		mg/L		95	75 - 125
Barium	0.11		2.00	1.98		mg/L		93	75 - 125
Calcium	140		10.0	151	4	mg/L		96	75 - 125
Cobalt	0.0015		0.500	0.502		mg/L		100	75 - 125
Lead	<0.00050		0.100	0.106		mg/L		106	75 - 125
Molybdenum	0.14		1.00	1.15		mg/L		101	75 - 125
Selenium	<0.0025		0.100	0.0959		mg/L		96	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-192056-16 MS
Matrix: Water
Analysis Batch: 577277

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.4		1.00	2.35		mg/L		92	75 - 125

Lab Sample ID: 500-192056-16 MSD
Matrix: Water
Analysis Batch: 577145

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0013		0.100	0.0963		mg/L		95	75 - 125	0	20
Barium	0.11		2.00	2.00		mg/L		94	75 - 125	1	20
Calcium	140		10.0	152	4	mg/L		103	75 - 125	0	20
Cobalt	0.0015		0.500	0.500		mg/L		100	75 - 125	0	20
Lead	<0.00050		0.100	0.106		mg/L		106	75 - 125	0	20
Molybdenum	0.14		1.00	1.15		mg/L		101	75 - 125	0	20
Selenium	<0.0025		0.100	0.0952		mg/L		95	75 - 125	1	20

Lab Sample ID: 500-192056-16 MSD
Matrix: Water
Analysis Batch: 577277

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	1.4		1.00	2.54		mg/L		111	75 - 125	8	20

Lab Sample ID: 500-192056-16 DU
Matrix: Water
Analysis Batch: 577145

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0013		0.00136		mg/L		8	20
Barium	0.11		0.115		mg/L		0.1	20
Calcium	140		143		mg/L		0.7	20
Cobalt	0.0015		0.00140		mg/L		5	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Molybdenum	0.14		0.145		mg/L		1	20
Selenium	<0.0025		<0.0025		mg/L		NC	20

Lab Sample ID: 500-192056-16 DU
Matrix: Water
Analysis Batch: 577277

Client Sample ID: T03S
Prep Type: Total Recoverable
Prep Batch: 576951

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	1.4		1.45		mg/L		1	20

Lab Sample ID: MB 500-577169/1-A
Matrix: Water
Analysis Batch: 577364

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0010		0.0010		mg/L		12/16/20 18:00	12/17/20 13:50	1
Barium	<0.0025		0.0025		mg/L		12/16/20 18:00	12/17/20 13:50	1
Calcium	<0.20		0.20		mg/L		12/16/20 18:00	12/17/20 13:50	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-577169/1-A
Matrix: Water
Analysis Batch: 577364

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	<0.0010		0.0010		mg/L		12/16/20 18:00	12/17/20 13:50	1
Lead	<0.00050		0.00050		mg/L		12/16/20 18:00	12/17/20 13:50	1
Molybdenum	<0.0050		0.0050		mg/L		12/16/20 18:00	12/17/20 13:50	1
Selenium	<0.0025		0.0025		mg/L		12/16/20 18:00	12/17/20 13:50	1

Lab Sample ID: MB 500-577169/1-A
Matrix: Water
Analysis Batch: 577514

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/16/20 18:00	12/17/20 19:02	1

Lab Sample ID: LCS 500-577169/2-A
Matrix: Water
Analysis Batch: 577364

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0965		mg/L		96	80 - 120
Barium	2.00	2.04		mg/L		102	80 - 120
Calcium	10.0	9.15		mg/L		92	80 - 120
Cobalt	0.500	0.517		mg/L		103	80 - 120
Lead	0.100	0.111		mg/L		111	80 - 120
Molybdenum	1.00	0.991		mg/L		99	80 - 120
Selenium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LCS 500-577169/2-A
Matrix: Water
Analysis Batch: 577514

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.967		mg/L		97	80 - 120

Lab Sample ID: 500-192056-20 MS
Matrix: Water
Analysis Batch: 577364

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0025		0.100	0.101		mg/L		98	75 - 125
Barium	0.038		2.00	2.07		mg/L		102	75 - 125
Calcium	150		10.0	153	4	mg/L		67	75 - 125
Cobalt	<0.0010		0.500	0.513		mg/L		103	75 - 125
Lead	<0.00050	^+	0.100	0.107	^+	mg/L		107	75 - 125
Molybdenum	0.75		1.00	1.76		mg/L		101	75 - 125
Selenium	<0.0025	F1	0.100	0.0660	F1	mg/L		66	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-192056-20 MS
Matrix: Water
Analysis Batch: 577514

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	6.1		1.00	6.85	4	mg/L		71	75 - 125

Lab Sample ID: 500-192056-20 MSD
Matrix: Water
Analysis Batch: 577364

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0025		0.100	0.102		mg/L		100	75 - 125	1	20
Barium	0.038		2.00	2.06		mg/L		101	75 - 125	1	20
Calcium	150		10.0	155	4	mg/L		87	75 - 125	1	20
Cobalt	<0.0010		0.500	0.515		mg/L		103	75 - 125	0	20
Lead	<0.00050	^+	0.100	0.108	^+	mg/L		108	75 - 125	2	20
Molybdenum	0.75		1.00	1.77		mg/L		101	75 - 125	1	20
Selenium	<0.0025	F1	0.100	0.0683	F1	mg/L		68	75 - 125	4	20

Lab Sample ID: 500-192056-20 MSD
Matrix: Water
Analysis Batch: 577514

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	6.1		1.00	6.95	4	mg/L		82	75 - 125	2	20

Lab Sample ID: 500-192056-20 DU
Matrix: Water
Analysis Batch: 577364

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0025		0.00243		mg/L		4	20
Barium	0.038		0.0380		mg/L		1	20
Calcium	150		143		mg/L		2	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Lead	<0.00050	^+	<0.00050	^+	mg/L		NC	20
Molybdenum	0.75		0.739		mg/L		2	20
Selenium	<0.0025	F1	<0.0025		mg/L		NC	20

Lab Sample ID: 500-192056-20 DU
Matrix: Water
Analysis Batch: 577514

Client Sample ID: R32S
Prep Type: Total Recoverable
Prep Batch: 577169

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Boron	6.1		5.81		mg/L		5	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-575750/1
Matrix: Water
Analysis Batch: 575750

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/08/20 03:41	1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: LCS 500-575750/2
Matrix: Water
Analysis Batch: 575750

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	248		mg/L		99	80 - 120		

Lab Sample ID: MB 500-575962/1
Matrix: Water
Analysis Batch: 575962

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/09/20 02:42	1

Lab Sample ID: LCS 500-575962/2
Matrix: Water
Analysis Batch: 575962

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	236		mg/L		94	80 - 120		

Lab Sample ID: 500-192056-3 MS
Matrix: Water
Analysis Batch: 575962

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids	1100		250	1390	4	mg/L		105	75 - 125		

Lab Sample ID: 500-192056-3 DU
Matrix: Water
Analysis Batch: 575962

Client Sample ID: G47S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	1100			1140		mg/L				2	5

Lab Sample ID: 500-192056-4 DU
Matrix: Water
Analysis Batch: 575962

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	890			868		mg/L				3	5

Lab Sample ID: MB 500-576321/1
Matrix: Water
Analysis Batch: 576321

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/11/20 02:48	1

Lab Sample ID: LCS 500-576321/2
Matrix: Water
Analysis Batch: 576321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			250	230		mg/L		92	80 - 120		

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-576777/1
Matrix: Water
Analysis Batch: 576777

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/15/20 02:09	1

Lab Sample ID: LCS 500-576777/2
Matrix: Water
Analysis Batch: 576777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	224		mg/L		90	80 - 120

Lab Sample ID: 500-192056-11 MS
Matrix: Water
Analysis Batch: 576777

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	390		250	602		mg/L		85	75 - 125

Lab Sample ID: 500-192056-11 DU
Matrix: Water
Analysis Batch: 576777

Client Sample ID: G20S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	390		392		mg/L		0.5	5

Lab Sample ID: 500-192056-12 DU
Matrix: Water
Analysis Batch: 576777

Client Sample ID: G45S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	760		780		mg/L		3	5

Lab Sample ID: MB 500-577212/1
Matrix: Water
Analysis Batch: 577212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10		mg/L			12/17/20 01:12	1

Lab Sample ID: LCS 500-577212/2
Matrix: Water
Analysis Batch: 577212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	228		mg/L		91	80 - 120

Lab Sample ID: 500-192056-14 MS
Matrix: Water
Analysis Batch: 577212

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	450		250	720		mg/L		110	75 - 125

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: 500-192056-14 DU
Matrix: Water
Analysis Batch: 577212

Client Sample ID: T06S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	450		442		mg/L		0.9	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-576531/4
Matrix: Water
Analysis Batch: 576531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/12/20 14:24	1

Lab Sample ID: LCS 500-576531/5
Matrix: Water
Analysis Batch: 576531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.8		mg/L		102	85 - 115

Lab Sample ID: 500-192056-4 MS
Matrix: Water
Analysis Batch: 576531

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	84		50.0	132		mg/L		95	75 - 125

Lab Sample ID: 500-192056-4 MSD
Matrix: Water
Analysis Batch: 576531

Client Sample ID: T09S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	84		50.0	131		mg/L		94	75 - 125	0	20

Lab Sample ID: MB 500-577109/39
Matrix: Water
Analysis Batch: 577109

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/16/20 10:59	1

Lab Sample ID: LCS 500-577109/40
Matrix: Water
Analysis Batch: 577109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	50.4		mg/L		101	85 - 115

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: 500-192056-10 MS
Matrix: Water
Analysis Batch: 577109

Client Sample ID: G33S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	12		50.0	56.2		mg/L		88	75 - 125

Lab Sample ID: 500-192056-10 MSD
Matrix: Water
Analysis Batch: 577109

Client Sample ID: G33S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	12		50.0	56.7		mg/L		89	75 - 125	1	20

Lab Sample ID: 500-192056-16 MS
Matrix: Water
Analysis Batch: 577109

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	170	F1	50.0	205	F1	mg/L		72	75 - 125

Lab Sample ID: 500-192056-16 MSD
Matrix: Water
Analysis Batch: 577109

Client Sample ID: T03S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	170	F1	50.0	211		mg/L		83	75 - 125	3	20

Lab Sample ID: MB 500-578099/39
Matrix: Water
Analysis Batch: 578099

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<2.0		2.0		mg/L			12/22/20 14:23	1

Lab Sample ID: LCS 500-578099/40
Matrix: Water
Analysis Batch: 578099

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	48.3		mg/L		97	85 - 115

Lab Sample ID: 500-192056-20 MS
Matrix: Water
Analysis Batch: 578099

Client Sample ID: R32S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	66	F1	50.0	102	F1	mg/L		70	75 - 125

Lab Sample ID: 500-192056-20 MSD
Matrix: Water
Analysis Batch: 578099

Client Sample ID: R32S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	66	F1	50.0	104	F1	mg/L		74	75 - 125	2	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-578222/3
Matrix: Water
Analysis Batch: 578222

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10		mg/L			12/22/20 16:33	1

Lab Sample ID: LCS 500-578222/4
Matrix: Water
Analysis Batch: 578222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	10.0	11.3		mg/L		113	80 - 120

Lab Sample ID: 500-192056-1 MS
Matrix: Water
Analysis Batch: 578222

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	1.2		5.00	6.85		mg/L		113	75 - 125

Lab Sample ID: 500-192056-1 MSD
Matrix: Water
Analysis Batch: 578222

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	1.2		5.00	6.85		mg/L		113	75 - 125	0	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-577347/15
Matrix: Water
Analysis Batch: 577347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/17/20 13:37	1

Lab Sample ID: MB 500-577347/40
Matrix: Water
Analysis Batch: 577347

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<5.0		5.0		mg/L			12/17/20 13:44	1

Lab Sample ID: LCS 500-577347/16
Matrix: Water
Analysis Batch: 577347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20.0	21.3		mg/L		107	80 - 120

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: LCS 500-577347/43
Matrix: Water
Analysis Batch: 577347

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate			20.0	21.2		mg/L		106	80 - 120		

Lab Sample ID: 500-192056-1 MS
Matrix: Water
Analysis Batch: 577347

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Sulfate	450		16.0	463	4	mg/L		89	75 - 125		

Lab Sample ID: 500-192056-1 MSD
Matrix: Water
Analysis Batch: 577347

Client Sample ID: G30S
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	450		16.0	465	4	mg/L		100	75 - 125	0	20

Chain of Custody Record 487141

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Diana Meckler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site: 4Q20 GW	☐ 2 days			Job / SDG No.: 500-192056
P O #	☐ 1 day			

500-192056 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals: As, Ba, Ca, Co, Li, Mo, TDS, Fl, Cl, SO4	Sample Specific Notes:
G30S	12/07/20	0948		W	5			✓	✓	✓	✓	
G48S	12/07/20	1126		W	5			✓	✓	✓	✓	
G47S	12/07/20	1325		W	5			✓	✓	✓	✓	

W21

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

5.5 → 5.4 48hr.

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____			
Relinquished by:	Company: TRC	Date/Time: 12/07/20 1500	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: EA-OH	Date/Time: 12/7/20 1500

Chain of Custody Record 487150

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Ca, Li, Mo, Sr

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.: 500-192056
P O #	☐ 1 day			

500-192056 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ba, Ca, Li, Mo, Sr, TDS, Fl, Cl, SO4
4 TO9S	12/08/20	1008	G	W	5			✓	✓	✓	✓
5 DUP (of TO9S)	12/08/20	1008		W	5			✓	✓	✓	✓
6 TO5S	12/08/20	1332		W	5			✓	✓	✓	✓

Sample Specific Notes:

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.3 Corr'd: 2.2 | Therm ID No.:_____

Relinquished by:	Company: TAL	Date/Time: 12/08/20 @ 1534	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time: 12/8/20 1534

Chain of Custody Record 488304

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Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: Pb, Li, Mo, Co

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	**Analysis Turnaround Time**			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			**For Lab Use Only:**
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site: 4Q20 GW	☐ 2 days			Job / SDG No.: 500-192056
P O #	☐ 1 day			

500-192056 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ba, Ca, Co, Li, Mo, Pb, Se, Tl	TDS, Fl, Cl, SO4	Sample Specific Notes:
1 TOBS	12/09/20	0958	G	W	5			-	-	-	-	-	
8 TO2S	12/09/20	1229		W	5			-	-	-	-	-	
9 G31S	12/09/20	1440		W	5			-	-	-	-	-	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: 19	Corr'd:	Therm ID No.:

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAL	12/09/20 1545			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Paula Buckley	Company: ETA	Date/Time: 12/9/20 1545

Chain of Custody Record 487142

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Diana Mackler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site: 4020 GW	☐ 2 days			Job / SDG No.: 500-192056
P O #	☐ 1 day			

500-192056 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ca, Co, Li, Mo, S	TDS, Fl, Cl, SO4	Sample Specific Notes:
10 G335	12/10/20	1020	G	W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 2.8 Corr'd: 3.7 | Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TMT	12/10/20 @ 1200			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Pallia Buckley	Company: ETA	Date/Time: 12/11/20 1200

Chain of Custody Record 487143

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Diana Markley	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site: 4220 GW	☐ 2 days			Job / SDG No.: 500-192056
PO #	☐ 1 day			

500-192056 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals Ag, B, Ba, Cd, Li, Mo, Sb, Se, Tl	TDS, Fl, Cl, SO4	Sample Specific Notes:
11	G205	12/11/20	0905	G	W	5			1	1	1	1	1	
12	G455	12/11/20	1242		W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

5.6 5.3

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company: THz	Date/Time: 12/11/20	Received by:	Company:	Date/Time:
Relinquished by:	Company: ETA	Date/Time: 12/4/20 1545	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company: ETA CHI	Date/Time: 12/11/20 1545

Chain of Custody Record 488357

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site: 4020 GW	☐ 2 days			Job / SDG No.: 500-192056
P O #	☐ 1 day			

500-192056 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ba, Ca, Li, Mg, Mo, Sb, Se, Tl	TDS, Fl, Cl, SO4	Sample Specific Notes:
13 TO15	12/14/20	0906	G	W	5			✓	✓	✓	✓	✓	
14 TO65	12/14/20	1125		W	5			✓	✓	✓	✓	✓	
15 RO85	12/14/20	1417		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 8.3 Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TTL	12/14/20 1535			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: [signature]	Company: TA-CHI	Date/Time: 12/14/20 1535

Chain of Custody Record 488360

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Diana Mockler	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Lucas) CCR	☐ 1 week			
Site: 4020 GW	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			500-192056

500-192056 COC

	Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Cond, Inorg 22/24/25	Total Metals As, B, Ba, Li, Mo, Pb, Li, Se	TDS, Fl, Cl, SO4	Sample Specific Notes:
16	TO35	12/15/20	0913	G	W	5			✓	✓	✓	✓	✓	
17	G465	12/15/20	1022		W	5			✓	✓	✓	✓	✓	
18	TO45	12/15/20	1325											Property Development excavation, no samples
19	G445	12/15/20	1349		W	5			✓	✓	✓	✓	✓	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

3.3 / 3.0

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	TAL	12/15/20 1500			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Stephanie Hernandez	Company: ETA-GH	Date/Time: 12/15/20 1500

Chain of Custody Record 483362

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other

TAL-8210

Client Contact	Project Manager: Diana Mucka	Site Contact:	Date:	COC No:
Company Name: Midwest Generation EME LLC	Tel/Email:	Lab Contact:	Carrier:	____ of ____ COCs
Address:	Analysis Turnaround Time			Sampler:
City/State/Zip: Joliet, IL.	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below ____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Joliet #9 (Quarry) CCR	☐ 1 week			
Site: 4020 GW	☐ 2 days			Job / SDG No.: 500-192056
P O #	☐ 1 day		500-192056 COC	

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Radium 226	Radium 228	Combined 226/228	Total Metals As, B, Ba, Co, Pb, Li, Mo, S	TDS, Fl, Cl, SO4	Sample Specific Notes:
20 R325	12/16/20	0854	G	W	5			1	1	1	1	1	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments:

3.9 → 3.6 48hr.

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ Therm ID No.:_____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	TAL	1310 12/16/20			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by: Stephanie Hernandez	Company: ETA-CHI	Date/Time: 12/16/20 1310

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-192056-1

Login Number: 192056
List Number: 1
Creator: Scott, Sherri L

List Source: Eurofins TestAmerica, Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	5.4,2.2,1.9,3.7,5.3,8.3,3.0,3.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G30S

Lab Sample ID: 500-192056-1
Matrix: Water
Date Collected: 12/07/20 09:48
Date Received: 12/07/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	575869	12/08/20 12:50	EEN	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576042	12/08/20 18:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	576684	12/14/20 12:22	FXG	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576882	12/14/20 17:47	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	575750	12/08/20 04:37	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 16:40	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:38	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/07/20 09:48	JVB	TAL CHI

Client Sample ID: G48S

Lab Sample ID: 500-192056-2
Matrix: Water
Date Collected: 12/07/20 11:26
Date Received: 12/07/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	575869	12/08/20 12:53	EEN	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576042	12/08/20 18:07	FXG	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	576684	12/14/20 12:26	FXG	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576882	12/14/20 17:50	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	575750	12/08/20 04:40	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:04	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 16:51	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:38	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/07/20 11:26	JVB	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-192056-3
Matrix: Water
Date Collected: 12/07/20 13:25
Date Received: 12/07/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	575869	12/08/20 12:56	EEN	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576042	12/08/20 18:11	FXG	TAL CHI
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	576684	12/14/20 12:29	FXG	TAL CHI

Client Sample ID: G47S

Lab Sample ID: 500-192056-3

Date Collected: 12/07/20 13:25

Matrix: Water

Date Received: 12/07/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			575753	12/08/20 06:21	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576882	12/14/20 17:54	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	575962	12/09/20 02:47	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 16:56	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:39	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/07/20 13:25	JVB	TAL CHI

Client Sample ID: T09S

Lab Sample ID: 500-192056-4

Date Collected: 12/08/20 10:08

Matrix: Water

Date Received: 12/08/20 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	576224	12/10/20 10:40	EEN	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	576866	12/14/20 16:56	FXG	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	576644	12/11/20 19:18	FXG	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	577089	12/15/20 16:03	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	575962	12/09/20 02:55	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 16:59	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:39	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/08/20 10:08	JVB	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-192056-5

Date Collected: 12/08/20 10:08

Matrix: Water

Date Received: 12/08/20 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	576224	12/10/20 10:44	EEN	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	576866	12/14/20 16:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	576644	12/11/20 19:21	FXG	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	577089	12/15/20 16:07	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	575962	12/09/20 03:00	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:11	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:03	MS	TAL CHI

Client Sample ID: DUP

Lab Sample ID: 500-192056-5

Date Collected: 12/08/20 10:08

Matrix: Water

Date Received: 12/08/20 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:39	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/08/20 10:08	JVB	TAL CHI

Client Sample ID: T05S

Lab Sample ID: 500-192056-6

Date Collected: 12/08/20 13:32

Matrix: Water

Date Received: 12/08/20 15:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	576224	12/10/20 10:48	EEN	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	576866	12/14/20 17:00	FXG	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	576644	12/11/20 19:25	FXG	TAL CHI
Total Recoverable	Prep	3005A			575895	12/08/20 17:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	577089	12/15/20 16:10	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	575962	12/09/20 03:03	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:11	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:10	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	577347	12/17/20 13:40	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/08/20 13:32	JVB	TAL CHI

Client Sample ID: T08S

Lab Sample ID: 500-192056-7

Date Collected: 12/09/20 09:58

Matrix: Water

Date Received: 12/09/20 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	576582	12/12/20 00:29	JJB	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576866	12/14/20 17:57	FXG	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	577089	12/15/20 17:28	FXG	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 13:52	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	576321	12/11/20 03:08	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:12	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:22	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:40	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/09/20 09:58	JVB	TAL CHI

Client Sample ID: T02S

Lab Sample ID: 500-192056-8

Date Collected: 12/09/20 12:29

Matrix: Water

Date Received: 12/09/20 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	576582	12/12/20 00:33	JJB	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576866	12/14/20 17:59	FXG	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		10	577089	12/15/20 17:32	FXG	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 13:56	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	576321	12/11/20 03:11	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:12	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:27	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:41	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/09/20 12:29	JVB	TAL CHI

Client Sample ID: G31S

Lab Sample ID: 500-192056-9

Date Collected: 12/09/20 14:40

Matrix: Water

Date Received: 12/09/20 15:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	576582	12/12/20 00:36	JJB	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576866	12/14/20 18:01	FXG	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		10	577089	12/15/20 17:35	FXG	TAL CHI
Total Recoverable	Prep	3005A			576150	12/10/20 07:37	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 13:59	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	576321	12/11/20 03:13	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	576531	12/12/20 15:13	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:31	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:41	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/09/20 14:40	JVB	TAL CHI

Client Sample ID: G33S

Lab Sample ID: 500-192056-10

Date Collected: 12/10/20 10:20

Matrix: Water

Date Received: 12/10/20 12:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576343	12/11/20 07:38	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	576826	12/14/20 12:26	EEN	TAL CHI
Total Recoverable	Prep	3005A			576343	12/11/20 07:38	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576644	12/11/20 21:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			576343	12/11/20 07:38	LMN	TAL CHI
Total Recoverable	Analysis	6020A		5	577089	12/15/20 16:54	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: G33S

Lab Sample ID: 500-192056-10

Date Collected: 12/10/20 10:20
Date Received: 12/10/20 12:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576343	12/11/20 07:38	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577089	12/15/20 18:45	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	576321	12/11/20 03:16	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	577109	12/16/20 11:01	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:34	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		3	577347	12/17/20 13:42	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/10/20 10:20	JVB	TAL CHI

Client Sample ID: G20S

Lab Sample ID: 500-192056-11

Date Collected: 12/11/20 09:05
Date Received: 12/11/20 15:45

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576613	12/14/20 08:25	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	576808	12/14/20 20:13	EEN	TAL CHI
Total Recoverable	Prep	3005A			576613	12/14/20 08:25	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576882	12/14/20 22:08	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	576777	12/15/20 02:24	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	577109	12/16/20 11:05	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:41	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		3	577347	12/17/20 13:42	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/11/20 09:05	JVB	TAL CHI

Client Sample ID: G45S

Lab Sample ID: 500-192056-12

Date Collected: 12/11/20 12:42
Date Received: 12/11/20 15:45

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576613	12/14/20 08:25	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	576808	12/14/20 20:26	EEN	TAL CHI
Total Recoverable	Prep	3005A			576613	12/14/20 08:25	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	576882	12/14/20 22:11	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	576777	12/15/20 02:32	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	577109	12/16/20 11:39	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:44	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:42	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/11/20 12:42	JVB	TAL CHI

Client Sample ID: T01S

Lab Sample ID: 500-192056-13

Date Collected: 12/14/20 09:06

Matrix: Water

Date Received: 12/14/20 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	577216	12/16/20 15:14	EEN	TAL CHI
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577089	12/15/20 23:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 13:19	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	576777	12/15/20 02:37	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	577109	12/16/20 11:39	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:48	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:43	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/14/20 09:06	JVB	TAL CHI

Client Sample ID: T06S

Lab Sample ID: 500-192056-14

Date Collected: 12/14/20 11:25

Matrix: Water

Date Received: 12/14/20 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	577216	12/16/20 15:18	EEN	TAL CHI
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577089	12/15/20 23:17	FXG	TAL CHI
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 13:23	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	577212	12/17/20 01:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	577109	12/16/20 11:11	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:50	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		3	577347	12/17/20 13:43	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/14/20 11:25	JVB	TAL CHI

Client Sample ID: R08S

Lab Sample ID: 500-192056-15

Date Collected: 12/14/20 14:17

Matrix: Water

Date Received: 12/14/20 15:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6010C		1	577216	12/16/20 15:21	EEN	TAL CHI
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577089	12/15/20 23:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6020A		20	577145	12/16/20 12:08	FXG	TAL CHI
Total Recoverable	Prep	3005A			576797	12/15/20 07:01	LMN	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 13:34	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	577212	12/17/20 01:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	577109	12/16/20 11:40	EAT	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Joliet #9 (Quarry) CCR

Job ID: 500-192056-1

Client Sample ID: R08S
Date Collected: 12/14/20 14:17
Date Received: 12/14/20 15:35

Lab Sample ID: 500-192056-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:56	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:43	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/14/20 14:17	JVB	TAL CHI

Client Sample ID: T03S
Date Collected: 12/15/20 09:13
Date Received: 12/15/20 15:00

Lab Sample ID: 500-192056-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	577113	12/16/20 10:12	EEN	TAL CHI
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 14:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	577277	12/16/20 18:11	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	577212	12/17/20 01:32	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	577109	12/16/20 11:40	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 17:59	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:43	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/15/20 09:13	JVB	TAL CHI

Client Sample ID: G46S
Date Collected: 12/15/20 10:22
Date Received: 12/15/20 15:00

Lab Sample ID: 500-192056-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	577113	12/16/20 10:34	EEN	TAL CHI
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 14:37	FXG	TAL CHI
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6020A		100	577277	12/16/20 18:28	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	577212	12/17/20 01:35	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	577109	12/16/20 11:14	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 18:12	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	577347	12/17/20 13:44	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/15/20 10:22	JVB	TAL CHI

Client Sample ID: T04S
Date Collected: 12/15/20 13:25
Date Received: 12/15/20 15:00

Lab Sample ID: 500-192056-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Field Sampling		1	576226	12/15/20 13:25	JVB	TAL CHI

Client Sample ID: G44S

Lab Sample ID: 500-192056-19

Date Collected: 12/15/20 13:49

Matrix: Water

Date Received: 12/15/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	577113	12/16/20 10:38	EEN	TAL CHI
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	577145	12/16/20 14:40	FXG	TAL CHI
Total Recoverable	Prep	3005A			576951	12/15/20 17:29	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	577277	12/16/20 18:32	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	577212	12/17/20 01:37	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	577109	12/16/20 11:15	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 18:16	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	577347	12/17/20 13:45	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/15/20 13:49	JVB	TAL CHI

Client Sample ID: R32S

Lab Sample ID: 500-192056-20

Date Collected: 12/16/20 08:54

Matrix: Water

Date Received: 12/16/20 13:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			577169	12/16/20 18:00	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	577331	12/17/20 08:50	JJB	TAL CHI
Total Recoverable	Prep	3005A			577169	12/16/20 18:00	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	577364	12/17/20 14:14	FXG	TAL CHI
Total Recoverable	Prep	3005A			577169	12/16/20 18:00	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	577514	12/17/20 19:08	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	577212	12/17/20 01:40	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	578099	12/22/20 14:44	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	578222	12/22/20 18:22	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	577347	12/17/20 13:45	MS	TAL CHI
Total/NA	Analysis	Field Sampling		1	576226	12/16/20 08:54	JVB	TAL CHI

Laboratory References:

TAL CHI = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G30S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-1

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/07/20 Start Purge: 0925 (2400 Hr. Clock) End Purge: 0948

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.30

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.31 (ft)
Ref. Measuring Pt. TIC
Well Elevation *524.69 (ft./msl)
Water Level 2.16 (ft.)
Ground Water Elev. 522.53 (ft./msl)
Well Bottom Elevation *462.58 (ft./msl)

	1st	2nd	Final	
pH	7.85	7.83	7.83	(std.)
SC	1820	1840	1840	(umhos/cm)
Temp.	8.80	8.84	8.84	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Strong Odor
Weather Conditions: 37°F, Partly Cloudy, NE winds 5-10 mph
Other: *Reference Measurement
Depth To Water from L.S. = 2.16 - 2.31 = -0.15 (ft.)
Levels were taken on 12/07/20 @ 0915.

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G48S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-2

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/07/20 Start Purge: 1107 (2400 Hr. Clock) End Purge: 1126

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.74

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.45 (ft)
Ref. Measuring Pt. TIC
Well Elevation *620.74 (ft./msl)
Water Level 100.96 (ft.)
Ground Water Elev. 519.78 (ft./msl)
Well Bottom Elevation *468.32 (ft./msl)

	1st	2nd	Final	
pH	8.39	8.40	8.40	(std.)
SC	1550	1560	1560	(umhos/cm)
Temp.	10.61	10.57	10.57	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Moderate Odor
Weather Conditions: 39°F, Cloudy, NE winds @ 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 100.96 - 2.45 = 98.51 (ft.)
Levels were taken on 12/07/20 @ 1100

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G47S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-3

Type Sample: (circle one) Ground Water Surface Water Leachate Other:_____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/07/20 Start Purge: 1305 (2400 Hr. Clock) End Purge: 1325

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.90

MEASUREMENTS

Well Diameter 4.0 (inches)
Stick Up 2.50 (ft)
Ref. Measuring Pt. TIC
Well Elevation *612.04 (ft./msl)
Water Level 86.92 (ft.)
Ground Water Elev. 525.12 (ft./msl)
Well Bottom Elevation *459.84 (ft./msl)

	1st	2nd	Final	
pH	9.14	9.13	9.13	(std.)
SC	1590	1620	1620	(umhos/cm)
Temp.	10.65	10.64	10.64	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 39°F, Cloudy, Calm winds

Other: *Reference Measurement
Depth To Water from L.S. = 86.92 - 2.50 = 84.42 (ft.)
Levels were taken on 12/07/20 @ 1310

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T09S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-4

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/08/20 Start Purge: 0950 (2400 Hr. Clock) End Purge: 1008

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.58

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.40 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 603.69 (ft./msl)

Water Level 103.16 (ft.)

Ground Water Elev. 500.53 (ft./msl)

Well Bottom Elevation * 444.80 (ft./msl)

	1st	2nd	Final	
pH	7.52	7.51	7.51	(std.)
SC	969	964	964	(umhos/cm)
Temp.	7.32	7.31	7.31	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 35°F, Cloudy, SW wind 5-10 mph

Other: *Reference Measurement (updated 02/19/14)

Depth To Water from L.S. = 103.16 - 2.40 = 100.76 (ft.)

Levels were taken on 12/08/20 @ 0935.

* Total Depth: 158.59

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T09S Dup
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-5

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up 2.40 (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation * 603.69 (ft./msl) Temp. _____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation * 444.80 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement (updated 02/19/14)

Depth To Water from L.S. = _____

Levels were taken on @

* Total Depth: 158.59

* Sampled @ 12/08/20 @ 1008

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: _____

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T05S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-6

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/08/20 Start Purge: 1310 (2400 Hr. Clock) End Purge: 1332

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.71

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.40 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 623.46 (ft./msl)
Water Level 121.17 (ft.)
Ground Water Elev. 502.29 (ft./msl)
Well Bottom Elevation * 448.35 (ft./msl)

	1st	2nd	Final	
pH	10.37	10.35	10.35	(std.)
SC	1,790	1,750	1,750	(umhos/cm)
Temp.	7.06	7.03	7.03	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 32°F, Cloudy, SW winds 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 121.17 - 2.40 = 118.77 (ft.)
Levels were taken on 12/08/20 @ 1255.
* Total Deth = 175.00

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-7

Type Sample: (circle one) Ground Water Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/09/20 Start Purge: 0940 (2400 Hr. Clock) End Purge: 0958

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.38 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 627.50 (ft./msl)
Water Level 127.12 (ft.)
Ground Water Elev. 500.38 (ft./msl)
Well Bottom Elevation * 447.38 (ft./msl)

	1st	2nd	Final	
pH	8.30	8.35	8.35	(std.)
SC	998	996	996	(umhos/cm)
Temp.	10.21	10.19	10.19	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Slight Turbidity, No Odor
Weather Conditions: 40°F, Sunny, SW winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 127.12 - 2.38 = 124.74 (ft)
Levels were taken on 12/09/20 @ 0925.
* Total Deth = 180.00

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T02S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-8

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other:
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/09/20 Start Purge: 1210 (2400 Hr. Clock) End Purge: 1229

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.61

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.33 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 626.12 (ft./msl)
Water Level 132.04 (ft.)
Ground Water Elev. 494.08 (ft./msl)
Well Bottom Elevation * 453.40 (ft./msl)

	1st	2nd	Final	
pH	7.70	7.70	7.70	(std.)
SC	1120	1130	1130	(umhos/cm)
Temp.	16.98	16.94	16.94	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 49°F, Sunny, W winds @ 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 132.04 - 2.33 = 129.71 (ft.)
Levels were taken on 12/09/20 @ 1155.
* Total Depth = 172.75

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G31S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-9

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/09/20 Start Purge: 1420 (2400 Hr. Clock) End Purge: 1440

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.42

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.58 (ft)

Ref. Measuring Pt. TIC

Well Elevation *535.77 (ft./msl)

Water Level 27.82 (ft.)

Ground Water Elev. 507.95 (ft./msl)

Well Bottom Elevation *453.36 (ft./msl)

	1st	2nd	Final	
pH	7.28	7.29	7.29	(std.)
SC	1074	1071	1071	(umhos/cm)
Temp.	13.73	13.72	13.72	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 53°F, Sunny, NW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 27.82 - 2.58 = 25.24 (ft.)

Levels were taken on 12/09/20 @ 1415.

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G33S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-10

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/10/20 Start Purge: 1000 (2400 Hr. Clock) End Purge: 1020

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.52

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 1.73 (ft)
Ref. Measuring Pt. TIC
Well Elevation *535.65 (ft./msl)
Water Level 30.88 (ft.)
Ground Water Elev. 504.77 (ft./msl)
Well Bottom Elevation *452.72 (ft./msl)

	1st	2nd	Final	
pH	7.40	7.41	7.41	(std.)
SC	651	646	646	(umhos/cm)
Temp.	12.87	12.80	12.80	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 44°F, Sunny, S winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 30.88 - 1.73 = 29.15 (ft.)
Levels were taken on 12/10/20 @ 0955.

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature:

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G20S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-11

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____

Equipment Used:
Purging: Bladder Pump — Dedicated (Y/N)
Sampling: Bladder Pump — Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/11/20 Start Purge: 0845 (2400 Hr. Clock) End Purge: 0905

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.26

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.78 (ft)
Ref. Measuring Pt. TIC
Well Elevation *580.94 (ft./msl)
Water Level 49.64 (ft.)
Ground Water Elev. 531.30 (ft./msl)
Well Bottom Elevation *442.28 (ft./msl)

	1st	2nd	Final	
pH	7.40	7.41	7.41	(std.)
SC	636	632	632	(umhos/cm)
Temp.	7.81	7.82	7.82	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 43°F, Partly Cloudy, NE winds 5-10 mph

Other: *Reference Measurement
Depth To Water from L.S. = 49.64 - 2.78 = 46.86 (ft.)
Levels were taken on 12/11/20 @ 0840.

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

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TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G45S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-12

Type Sample: (circle one) Ground Water | Surface Water | Leachate | Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/11/20 Start Purge: 1220 (2400 Hr. Clock) End Purge: 1242

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.85

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.97 (ft)
Ref. Measuring Pt. TIC
Well Elevation *603.94 (ft./msl)
Water Level 65.45 (ft.)
Ground Water Elev. 538.49 (ft./msl)
Well Bottom Elevation *471.05 (ft./msl)

	1st	2nd	Final	
pH	7.16	7.16	7.16	(std.)
SC	1282	1273	1273	(umhos/cm)
Temp.	12.58	12.57	12.57	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor
Weather Conditions: 46°F, Light Rain, NE winds @ 10-15 mph

Other: *Reference Measurement
Depth To Water from L.S. = 65.45 − 2.97 = 62.48 (ft.)
Levels were taken on 12/11/20 @ 1215.

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T01S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-13

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/14/20 Start Purge: 0845 (2400 Hr. Clock) End Purge: 0906

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.27

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.48 (ft)

Ref. Measuring Pt. TIC

Well Elevation * 621.71 (ft./msl)

Water Level 119.30 (ft.)

Ground Water Elev. 502.41 (ft./msl)

Well Bottom Elevation * 451.46 (ft./msl)

	1st	2nd	Final	
pH	7.42	7.44	7.44	(std.)
SC	1250	1255	1255	(umhos/cm)
Temp.	3.40	3.47	3.47	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, Slight Odor

Weather Conditions: 31°F, Mostly Cloudy, NW winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 119.30 - 2.48 = 116.82 (ft)

Levels were taken on 12/14/20 @ 0830

* Total Depth = 170.00

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T06S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192050-14

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/14/20 Start Purge: 1105 (2400 Hr. Clock) End Purge: 1125

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.39

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.30 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 620.99 (ft./msl)
Water Level 112.62 (ft.)
Ground Water Elev. 508.37 (ft./msl)
Well Bottom Elevation * 447.94 (ft./msl)

	1st	2nd	Final	
pH	7.50	7.51	7.51	(std.)
SC	655	658	658	(umhos/cm)
Temp.	7.41	7.45	7.45	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 31°F, Partly Cloudy, NW winds 5-10 m/h

Other: *Reference Measurement
Depth To Water from L.S. = 112.62 - 2.30 = 110.32 (ft)
Levels were taken on 12/14/20 @ 1050.
* Total Deth = 173.00

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R08S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-15

Type Sample: (circle one) (Ground Water) Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/14/20 Start Purge: 1400 (2400 Hr. Clock) End Purge: 1417

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.32

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 2.55 (ft)
Ref. Measuring Pt. TIC
Well Elevation *578.51 (ft./msl)
Water Level 67.91 (ft.)
Ground Water Elev. 510.60 (ft./msl)
Well Bottom Elevation *453.08 (ft./msl)

	1st	2nd	Final	
pH	8.17	8.15	8.15	(std.)
SC	940	941	941	(umhos/cm)
Temp.	11.64	11.66	11.66	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 32°F, Partly Cloudy, NW winds 10-15 mph

Other: *Reference Measurement (Well ID updated 11-25-15)
Depth To Water from L.S. = 67.91 - 2.55 = 65.36 (ft.)
Levels were taken on 12/14/20 @ 1355.

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T03S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-1&2

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____
Equipment Used: Purging Bladder Pump Dedicated (Y/N)
Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/15/20 Start Purge: 0855 (2400 Hr. Clock) End Purge: 0913

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.46

MEASUREMENTS

Well Diameter 2.0 (inches)
Stick Up 3.08 (ft)
Ref. Measuring Pt. TIC
Well Elevation * 629.74 (ft./msl)
Water Level 136.43 (ft.)
Ground Water Elev. 493.31 (ft./msl)
Well Bottom Elevation * 456.70 (ft./msl)

	1st	2nd	Final	
pH	6.99	7.01	7.01	(std.)
SC	1260	1240	1240	(umhos/cm)
Temp.	10.44	10.44	10.44	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor
Weather Conditions: 27°F, Sunny, NE winds 0-5 mph

Other: *Reference Measurement
Depth To Water from L.S. = 136.43 - 3.08 = 133.35 (ft)
Levels were taken on 12/15/20 @ 0845.
* Total Depth = 172.95

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: [signature]

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G46S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-17

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/15/20 Start Purge: 1005 (2400 Hr. Clock) End Purge: 1022

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.55

MEASUREMENTS

Well Diameter 4.0 (inches)

Stick Up 2.70 (ft)

Ref. Measuring Pt. TIC

Well Elevation *601.34 (ft./msl)

Water Level 101.78 (ft.)

Ground Water Elev. 499.56 (ft./msl)

Well Bottom Elevation *453.62 (ft./msl)

	1st	2nd	Final	
pH	7.73	7.74	7.74	(std.)
SC	1148	1156	1156	(umhos/cm)
Temp.	11.49	11.48	11.48	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Tan, Moderate Turbidity, No Odor

Weather Conditions: 31°F, Sunny, NE winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 101.78 - 2.70 = 99.08 (ft.)

Levels were taken on 12/15/20 @ 1000.

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: T04S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192051o-18

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: _____ Start Purge: _____ (2400 Hr. Clock) End Purge: _____

Water Volume in Casing (gallons): N/A Volume Purged (gallons): _____

MEASUREMENTS

Well Diameter 2.0 (inches) 1st 2nd *Final*

Stick Up _____ (ft) pH _____ _____ _____ _____ (std.)

Ref. Measuring Pt. TIC SC _____ _____ _____ _____ (umhos/cm)

Well Elevation * 631.35 (ft./msl) Temp. _____ _____ _____ _____ (°C)

Water Level _____ (ft.) Well Stabilization / Recharge Grid

Ground Water Elev. _____ (ft./msl)

Well Bottom Elevation * 458.07 (ft./msl)

COMMENTS

Sample Appearance/Odor: _____

Weather Conditions: _____

Other: *Reference Measurement

Depth To Water from L.S. =

Levels were taken on @

* Total Deth = 173.00

* Property Development excavation, unable to purge or sample on 12/15/20 @ 1325

(Updated: 12-11-2018)

Sampler Name (Print): Noe Lopez Signature: NJ

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: G44S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-19

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/15/20 Start Purge: 1335 (2400 Hr. Clock) End Purge: 1349

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 0.72

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.18 (ft)

Ref. Measuring Pt. TIC

Well Elevation *586.49 (ft./msl)

Water Level 81.42 (ft.)

Ground Water Elev. 505.07 (ft./msl)

Well Bottom Elevation *455.11 (ft./msl)

	1st	2nd	Final	
pH	7.18	7.17	7.17	(std.)
SC	836	838	838	(umhos/cm)
Temp.	10.54	10.52	1052	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 34°F, Partly Cloudy, SE winds 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 81.42 - 2.18 = 79.24 (ft)

Levels were taken on 12/15/20 @ 1330

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1

eurofins | Environment Testing TestAmerica

TestAmerica Chicago
2417 Bond St
University Park, IL 60484-3182
Tel: 708 534 5200 Fax: 708 534 5211

Sample ID: R32S
Facility: Midwest Generation-Joliet #9 CCR
Job #: 500-192056-20

Type Sample: (circle one) Ground Water Surface Water Leachate Other: _____

Equipment Used: Purging Bladder Pump Dedicated (Y/N)

Sampling Bladder Pump Dedicated (Y/N)

PURGING INFORMATION

Purge Date: 12/16/20 Start Purge: 0835 (2400 Hr. Clock) End Purge: 0854

Water Volume in Casing (gallons): N/A Volume Purged (gallons): 1.23

MEASUREMENTS

Well Diameter 2.0 (inches)

Stick Up 2.03 (ft)

Ref. Measuring Pt. TIC

Well Elevation *536.91 (ft./msl)

Water Level 20.44 (ft.)

Ground Water Elev. 516.47 (ft./msl)

Well Bottom Elevation *457.84 (ft./msl)

	1st	2nd	Final	
pH	7.45	7.43	7.43	(std.)
SC	877	882	882	(umhos/cm)
Temp.	11.04	11.02	11.02	(°C)

Well Stabilization / Recharge Grid

COMMENTS

Sample Appearance/Odor: Colorless, Clear, No Odor

Weather Conditions: 30°F, Cloudy, NE winds e 5-10 mph

Other: *Reference Measurement

Depth To Water from L.S. = 20.44 - 2.03 = 18.41 (ft.)

Levels were taken on 12/16/20 @ 0830

(Updated: 08/04/2020)

Sampler Name (Print): Noe Lopez Signature: NL

FIELD FORM 1