K P R G

ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and CORRECTIVE ACTION REPORT - 2019

Midwest Generation, LLC
Will County
259 E. 135th Street
Romeoville, Illinois

Prepared By: KPRG and Associates, Inc.
14665 West Lisbon Road, Suite 1A
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January 31, 2019

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1.0 INTRODUCTION

The Detection Monitoring requirements in accordance with the Federal Register, Environmental Protection Agency, 40 CFR Parts 257.94, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule dated April 17, 2015 (CCR Rule) have been completed for the ash pond monitoring wells located at the Midwest Generation, LLC (Midwest Generation) Will County Generating Station. The wells sampled were selected to meet the monitoring requirements of the CCR Rule for Ash Ponds 2 South (2S) and 3 South (3S). The CCR monitoring well network around these ponds consists of six monitoring wells (MW-05, MW-06, MW-09, MW-10, MW-11 and MW-12) as shown on Figure 1. Wells MW-05 and MW-06 are upgradient wells.

The first CCR Compliance Annual Groundwater Monitoring and Corrective Action report was submitted January 24, 2018. This third annual report covers the work performed relative to CCR groundwater monitoring from January 1, 2019 through the end of 2019. It does not duplicate information or activities previously reported for 2017 or 2018. It is prepared in accordance with Section 257.90(e)(1-5) and summarizes the sampling procedures used, provides an evaluation of groundwater flow conditions and summarizes the analytical data generated.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the CCR groundwater monitoring network around the Ash Ponds 2S and 3S at the Will County facility consists of six wells (MW-05, MW-06, MW-09, MW-10, MW-11 and MW-12) as shown on Figure 1. As part of sampling procedures, the integrity of all monitoring wells was inspected and water levels obtained using an electronic water level meter (see summary of water level discussion below). Wells MW-05, MW-06, MW-09 were found in good condition with locked protector casings and intact concrete surface seals. Wells MW-10, MW-11 and MW-12 are completed with flush-mounts at ground surface and were also in good condition.

All groundwater samples were collected using the low-flow sampling technique from dedicated pumps. The samples were not filtered prior to analysis to provide for total metals concentrations as opposed to dissolved metals concentrations. One duplicate sample was collected from a randomly selected monitoring well per sampling event for quality assurance purposes.

2.2 Groundwater Flow Evaluation

Water level data measurements were obtained from each well during each round of groundwater monitoring. A complete round of water levels was collected prior to initiating sampling, and the water level data are summarized in Table 1. The water levels were used to generate a groundwater flow map for each sampling event. These maps are provided as Figures 2 and 3. A review of the maps indicates a consistent westerly groundwater flow direction. In accordance with general groundwater sampling requirements under Section 257.93(c), Table 2 provides a summary of the flow direction and an estimated rate of groundwater flow for each sampling event. The flow rate was calculated using the following equation:

$$V_s = \frac{K dh}{n_e dl}$$, where

V_s is seepage velocity (distance/time)
K is hydraulic conductivity (distance/time)
dh/dl is hydraulic gradient (unitless)
n_e is effective porosity (unitless)

The average hydraulic conductivity of 4.32×10^{-4} ft/sec used in Table 2 was obtained from the Hydrogeologic Assessment Report dated February 2011 and prepared by Patrick

Engineering. The estimated effective porosity of the aquifer materials (0.20) was obtained from literature (Groundwater, Freeze and Cherry, 1979).

3.0 ANALYTICAL DATA AND STATUS OF EVALUATIONS

3.1 Sampling Summary

The groundwater sampling summary from 2019 is provided in Table 3, in accordance with 257.90 (e)(3).

3.2 Data Summary

The analytical data from the detection monitoring groundwater sampling for Appendix III parameters are provided in Table 4 which includes calculated Prediction Limits (PLs) established in the initial CCR Groundwater Monitoring Statistical Evaluation Summary dated January 2018 for data comparison purposes. The downgradient intrawell prediction limits were established for the three parameters which were part of the Alternate Source Demonstration (ASD) as recommended at the end of that evaluation (see discussion in Section 4.2 below). For those parameters in downgradient wells, a concentration above both interwell and intrawell prediction limits would be considered a potential statistically significant increase (SSI).

Semi-annual groundwater sampling was completed for Appendix III in 2019 in accordance with detection monitoring requirements under Section 257.94. The data tables include the sample dates and whether the specific well is considered upgradient or downgradient relative to groundwater flow and the regulated unit. All duplicate values were within an acceptable range. The analytical data packages from the detection monitoring events are provided in Appendix A. Groundwater sampling for Appendix IV was not performed in 2019 since this facility is not in assessment monitoring.

Resampling events were limited to any potential statistically significant increases (SSI) for specific parameters at specific wells. First 2019 semi-annual sampling data indicated boron and TDS above the PLs at MW-06. Confirmatory resampling as permitted within the rule indicated that analytical results were below the PLs for each resampled well.

3.3 Current Status

Ash Ponds 2S and 3S are, and continue to be, in detection monitoring, and there has been no transition between monitoring programs in 2019 since no confirmed SSIs in association with the regulated unit(s) were recorded.

4.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

The detection monitoring requirements in accordance with the CCR Rule have been successfully met. While in detection monitoring, Ash Ponds 2S and 3S analytical results were below the established PLs. The groundwater monitoring well that had analytical results that showed parameters above the PLs was resampled to minimize potential for a false positive. All monitoring wells that were resampled showed analytical results below the PLs. Therefore, it is recommended that the site continue with routine detection monitoring at this time. The next round of CCR semi-annual detection monitoring groundwater sampling is scheduled for 2nd Quarter of 2020.

5.0 REFERENCES

- Federal Register, Environmental Protection Agency, 40 CFR Parts 257 and 261, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule. Vol. 80, No. 74, Friday April 17, 2015.

- Patrick Engineering, Inc., Hydrogeologic Assessment Report – Will County Generating Station, Romeoville, IL. February 2011.

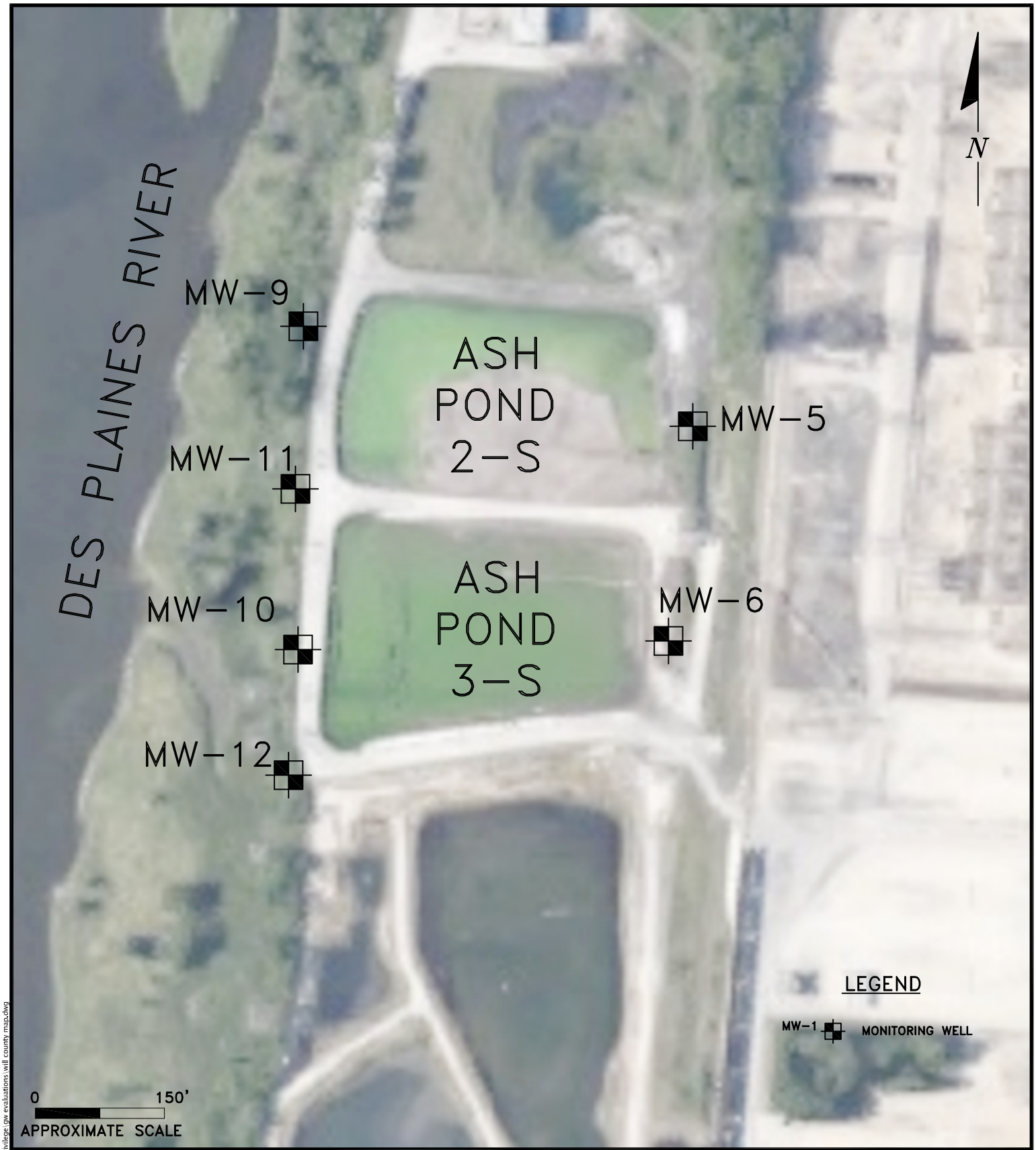
- KPRG and Associates, Inc., CCR Compliance Monitoring, Sampling and Analysis Plan, Midwest Generation, LLC Will County Generating Station. October 10, 2017.

- KPRG and Associates, Inc., CCR Compliance Statistical Approach for Groundwater Data Evaluation, Midwest Generation, LLC Will County Generating Station. October 10, 2017.

- KPRG and Associates, Inc., CCR Groundwater Monitoring Statistical Evaluation Summary - 2017, Midwest Generation, LLC Will County Generating Station. January 12, 2018.

- R.A. Freeze and J.A. Cherry, Groundwater. Prentice-Hall, Inc. Publishing Co., 1979.

FIGURES



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CCR MONITORING WELL SITE MAP

WILL COUNTY STATION
ROMEOVILLE, ILLINOIS

Scale: 1" = 150'	Date: December 27, 2017
KPRG Project No. 12313.3	FIGURE 1

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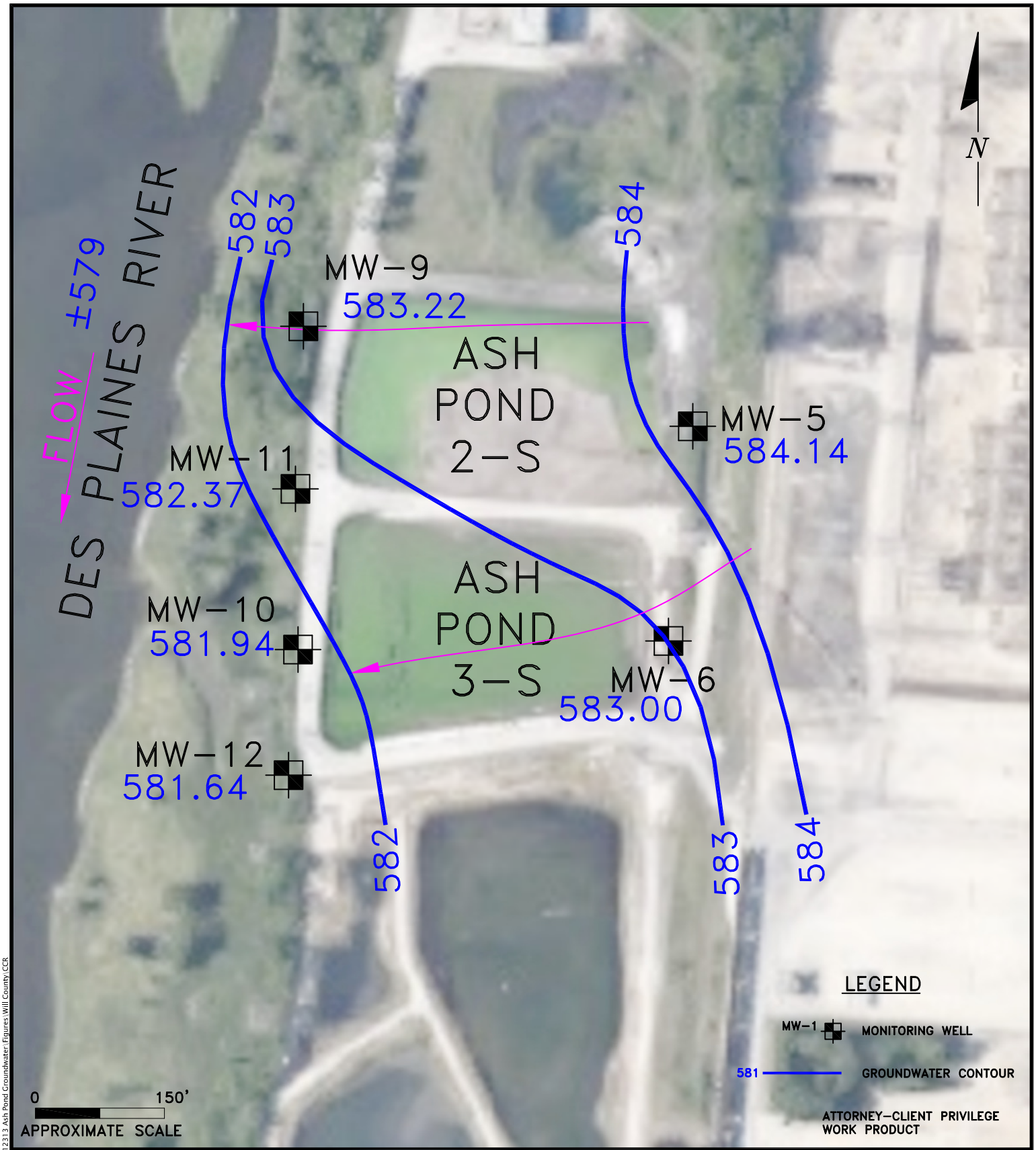

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CCR GROUNDWATER CONTOUR-5/2019

WILL COUNTY STATION
ROMEOVILLE, ILLINOIS

Scale: 1" = 150' | Date: July 5, 2019

KPRG Project No. 12313.3 | FIGURE 3

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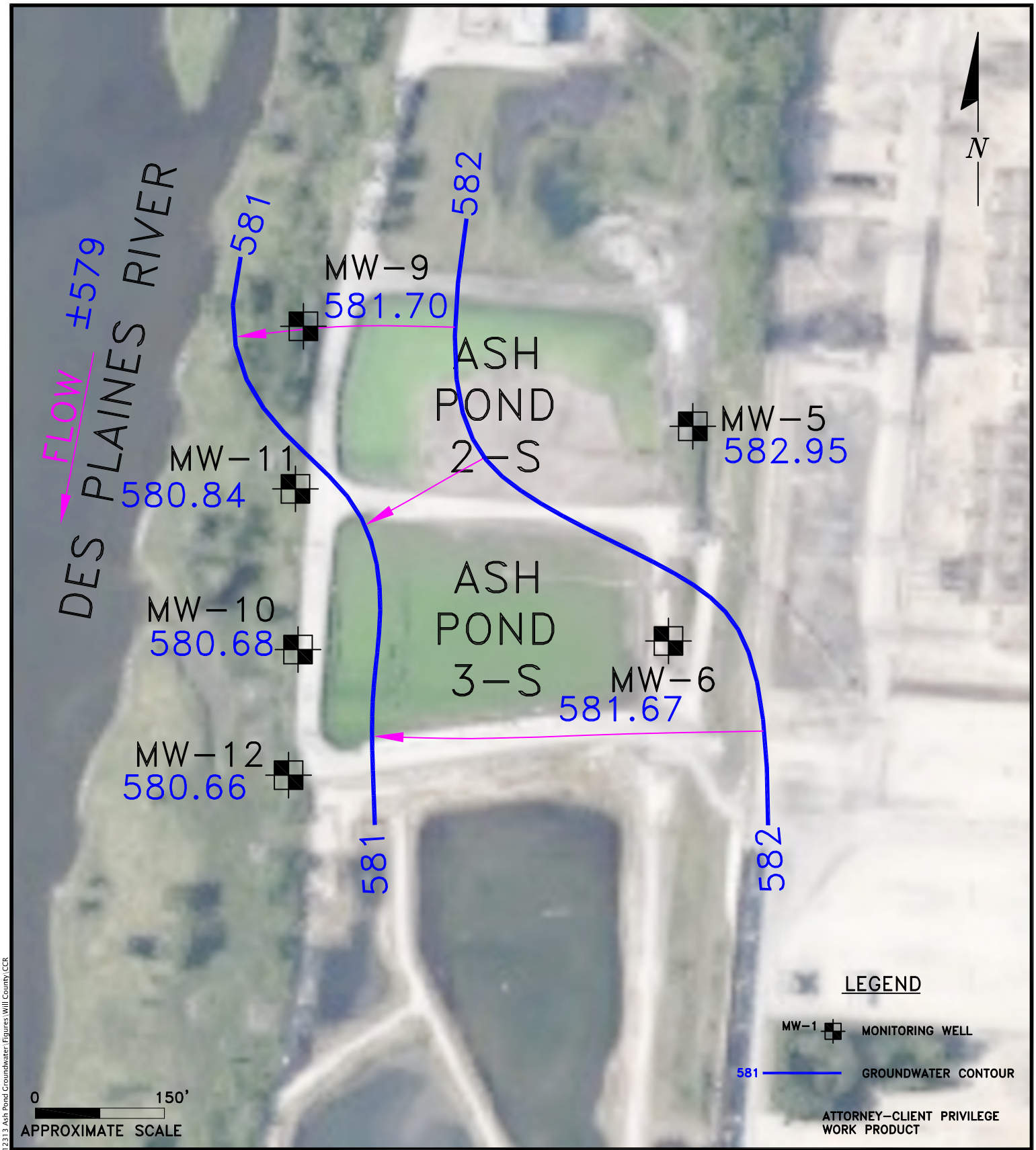

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CCR GROUNDWATER CONTOUR-12/2019

WILL COUNTY STATION
ROMEOVILLE, ILLINOIS

Scale: 1" = 150'	Date: December 19, 2019
KPRG Project No. 12313.3	FIGURE 3

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TABLES

Table 1. Groundwater Elevations - Midwest Generation, LLC, Will County Station, Romeoville, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-05	11/9/2015	592.87	9.99	582.88
	2/16/2016	592.87	9.91	582.96
	5/24/2016	592.87	9.94	582.93
	8/9/2016	592.87	10.09	582.78
	10/25/2016	592.87	9.02	583.85
	1/31/2017	592.87	9.81	583.06
	5/9/2017	592.87	9.63	583.24
	6/27/2017	592.87	10.26	582.61
	9/6/2017	592.87	10.48	582.39
	11/16/2017	592.87	10.02	582.85
	2/28/2018	592.87	9.48	583.39
	5/1/2018	592.87	9.94	582.93
	10/2/2018	592.87	10.64	582.23
	5/28/2019	592.87	8.73	584.14
	12/5/2019	592.87	9.92	582.95
MW-06	11/9/2015	593.18	9.96	583.22
	2/16/2016	593.18	11.37	581.81
	5/24/2016	593.18	11.37	581.81
	8/9/2016	593.18	11.54	581.64
	10/25/2016	593.18	11.37	581.81
	1/31/2017	593.18	11.24	581.94
	5/9/2017	593.18	10.86	582.32
	6/27/2017	593.18	11.55	581.63
	9/6/2017	593.18	11.77	581.41
	11/16/2017	593.18	11.49	581.69
	2/28/2018	593.18	10.91	582.27
	5/1/2018	593.18	11.47	581.71
	10/2/2018	593.18	11.89	581.29
	5/28/2019	593.18	10.18	583.00
	12/5/2019	593.18	11.51	581.67
MW-09	11/9/2015	592.87	11.38	581.49
	2/16/2016	592.87	11.03	581.84
	5/24/2016	592.87	11.35	581.52
	8/9/2016	592.87	11.43	581.44
	10/25/2016	592.87	10.74	582.13
	1/31/2017	592.87	11.15	581.72
	5/9/2017	592.87	10.45	582.42
	6/27/2017	592.87	11.66	581.21
	9/6/2017	592.87	11.95	580.92
	11/14/2017	592.87	11.54	581.33
	2/27/2018	592.87	10.13	582.74
	5/1/2018	592.87	11.39	581.48
	10/2/2018	592.87	11.91	580.96
	5/28/2019	592.87	9.65	583.22
	12/5/2019	592.87	11.17	581.70
MW-10	11/9/2015	590.96	10.65	580.31
	2/16/2016	590.96	10.43	580.53
	5/24/2016	590.96	10.72	580.24
	8/9/2016	590.96	11.12	579.84
	10/25/2016	590.96	10.73	580.23
	1/31/2017	590.96	10.37	580.59
	5/9/2017	590.96	9.78	581.18
	6/27/2017	590.96	11.09	579.87
	9/6/2017	590.96	11.20	579.76
	11/15/2017	590.96	10.76	580.20
	2/27/2018	590.96	9.54	581.42
	5/1/2018	590.96	10.64	580.32
	10/2/2018	590.96	11.12	579.84
	5/28/2019	590.96	9.02	581.94
	12/5/2019	590.96	10.28	580.68

MSL - Mean Sea Level

TOC - Top of Casing

Table 1. Groundwater Elevations - Midwest Generation, LLC, Will County Station, Romeoville, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-11	11/9/2015	590.69	10.28	580.41
	2/16/2016	590.69	10.15	580.54
	5/24/2016	590.69	10.25	580.44
	8/9/2016	590.69	10.66	580.03
	10/25/2016	590.69	10.42	580.27
	1/31/2017	590.69	9.91	580.78
	5/9/2017	590.69	9.21	581.48
	6/27/2017	590.69	10.48	580.21
	9/6/2017	590.69	10.73	579.96
	11/15/2017	590.69	10.43	580.26
	5/1/2018	590.69	10.18	580.51
	10/2/2018	590.69	10.59	580.10
	5/28/2019	590.69	8.32	582.37
	12/5/2019	590.69	9.85	580.84
MW-12	11/9/2015	590.81	10.15	580.66
	2/16/2016	590.81	10.24	580.57
	5/24/2016	590.81	10.31	580.50
	8/9/2016	590.81	10.73	580.08
	10/25/2016	590.81	10.45	580.36
	1/31/2017	590.81	10.16	580.65
	5/9/2017	590.81	9.88	580.93
	6/27/2017	590.81	10.62	580.19
	9/6/2017	590.81	10.61	580.20
	11/15/2017	590.81	10.20	580.61
	5/1/2018	590.81	10.30	580.51
	10/2/2018	590.81	10.77	580.04
	5/28/2019	590.81	9.17	581.64
	12/5/2019	590.81	10.15	580.66

MSL - Mean Sea Level

TOC - Top of Casing

Table 2. Groundwater Flow Direction and Estimated Seepage Velocity/Flow Rate - Will County Generation Station.

DATE	Groundwater Flow Direction	K_{avg} (ft/sec)*	Average Hydraulic Gradient (ft/ft)	Porosity (unitless)**	Estimated Seepage Velocity (ft/day)
11/9/2015	West	4.320E-04	0.0053	0.2	0.99
2/16/2016	West	4.320E-04	0.0030	0.2	0.55
5/24/2016	West	4.320E-04	0.0030	0.2	0.55
8/9/2016	West	4.320E-04	0.0030	0.2	0.55
10/25/2016	West	4.320E-04	0.0030	0.2	0.55
1/31/2017	West	4.320E-04	0.0030	0.2	0.55
5/9/2017	West	4.320E-04	0.0045	0.2	0.84
6/27/2017	West	4.320E-04	0.0049	0.2	0.91
9/6/2017	West	4.320E-04	0.0047	0.2	0.88
11/16/2017	West	4.320E-04	0.0026	0.2	0.49
5/1/2018	West	4.320E-04	0.0025	0.2	0.46
10/2/2018	West	4.320E-04	0.0040	0.2	0.75
5/28/2019	West	4.320E-04	0.0027	0.2	0.50
12/5/2019	West	4.320E-04	0.0027	0.2	0.50

* K_{avg} - Average hydraulic conductivity (feet/second) from Hydrogeologic Assessment Report, Patrick Engineering, February 2011.

** - Porosity estimate from Groundwater, Freeze and Cherry, 1979.

Table 3. CCR Groundwater Sample Collection Summary for 2019 - Will County Generating Station

Well ID	Number of Groundwater Sampling Events	Dates Groundwater Sampling Events	Detection Monitoring (D) versus Assessment Monitoring (A)
MW-5 (Upgradient)	2	5/29/2019	D
		12/6/2019	D
MW-6 (Upgradient)	2	5/29/2019	D
		12/6/2019	D
MW-9 (Downgradient)	2	5/29/2019	D
		12/6/2019	D
MW-10 (Downgradient)	2	5/29/2019	D
		12/5/2019	D
MW-11 (Downgradient)	2	5/29/2019	D
		12/5/2019	D
MW-12 (Downgradient)	2	5/29/2019	D
		12/5/2019	D

Table 2. Semi-Annual Detection Monitoring Statistical Comparisons - Appendix III Groundwater Analytical Results 2019 and Confirmatory Resampling - Midwest Generation, LLC, Will County Station, Romeoville, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-05 up-gradient	11/11/2015	6.1	220	110	0.31	7.24	770	1,900
	2/18/2016	4.4	230	120	0.31	6.99	730	1,600
	5/26/2016	3.7	170	110	0.33	6.73	670	1,500
	8/10/2016	3.6	67	120	0.72	8.62	480	970
	10/26/2016	3.6	44	120	0.70	9.08	410	920
	2/1/2017	4.6	250	48	0.35	6.81	530	1,600
	5/11/2017	4.0	140	85	0.31	7.86	610	1,200
	6/27/2017	3.8	83	99	0.53	7.95	500	1,000
	Pred. Limit*	**6.65**	**359**	**148**	**0.72**	**9.93-5.39**	**923**	**2,286**
	9/8/2017	4.8	89	78	0.52	9.40	490	1,000
	11/16/2017	4.8	180	52	0.45	6.70	650	1,500
	5/2/2018	3.6	200	32	0.39	7.23	510	1,300
	10/3/2018	4.9	150	55	0.48	7.07	430	1,200
	5/29/2019	4.1	61	91	0.59	9.10	380	870
	12/6/2019	4.9	170	31	0.41	6.95	440	1,200
MW-06 up-gradient	11/10/2015	3.0	52	100	0.55	8.63	300	660
	2/18/2016	2.5	74	150	0.47	8.58	280	650
	5/26/2016	2.7	86	92	0.44	7.79	350	800
	8/11/2016	3.6	110	58	0.35	7.74	330	840
	10/26/2016	3.8	86	74	0.40	8.16	220	800
	2/1/2017	3.4	70	83	0.41	7.88	260	700
	5/11/2017	3.0	75	84	0.28	8.68	330	570
	6/27/2017	3.1	65	74	0.38	8.15	330	710
	Pred. Limit*	**4.29**	**122**	**162**	**0.62**	**9.21-7.19**	**415**	**956**
	9/7/2017	3.5	75	67	0.40	8.20	300	740
	11/16/2017	3.9	88	54	0.39	7.59	280	810
	5/3/2018	3	91	52	0.26	***6.91***	***530***	750
	7/25/2018 R	NA	NA	NA	NA	7.47	280	NA
	10/3/2018	3.5	93	44	0.31	7.83	240	720
	5/29/2019	**4.3**	120	38	0.21	7.51	350	**1,000**
	7/3/2019 R	3.2	NA	NA	NA	8.28	NA	740
	12/6/2019	4.2	98	31	0.33	7.91	210	740
MW-09 down-gradient	11/11/2015	1.9	56	190	0.55	9.12	460	750
	2/17/2016	1.8	47	160	0.55	9.10	250	600
	5/24/2016	1.6	48	180	0.51	8.79	240	640
	8/9/2016	2.2	53	140	0.48	8.35	280	750
	10/26/2016	2.2	33	130	0.81	9.16	230	660
	1/31/2017	2.0	61	250	0.57	8.59	180	710
	5/9/2017	1.8	66	340	0.38	8.58	250	900
	6/27/2017	1.9	64	330	0.51	7.76	240	940
	Pred. Limit	**4.26**	**275****	**149****	**0.72****	**9.39-6.48****	**413**	**950**
	Pred. Limit*	**NC**	**NC**	**431.2**	**0.87**	**NC**	**NC**	**1,060**
	9/6/2017	1.8	59	**310**	0.51	8.98	240	890
	11/14/2017	2.6	160	**270**	0.51	8.1	290	910
	5/1/2018	1.7	49	**200**	0.52	7.81	**430**	820
	7/25/2018 R	NA	NA	NA	NA	NA	320	NA
	10/2/2018	2.1	49	**170**	0.55	8.09	270	820
	5/29/2019	1.5	48	**280**	0.29	8.90	150	750
	12/6/2019	2.0	38	140	0.46	8.65	160	630

Notes: All units are in mg/l except pH is in standard units.

* - Intrawell Prediction Limit. All others are interwell comparisons.

** - Based on pooled background from MW-5/MW-6. All others based on MW-6 as background.

Italics Date - First round of Detection Monitoring and resample after statistical background establishment.

NC - Not calculated.

BOLD - Potential statistically significant increase relative to interwell Prediction Limit.

BOLD - Potential statistically significant increase relative to intrawell Prediction Limit.

BOLD - Above both interwell and intrawell Prediction Limts

NA - Not analyzed. No confirmation resample required.

R - Resample

F1 - MS and/or MSD Recovery outside of limits.

Table 2. Semi-Annual Detection Monitoring Statistical Comparisons - Appendix III Groundwater Analytical Results 2019 and Confirmatory Resampling - Midwest Generation, LLC, Will County Station, Romeoville, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-10 down-gradient	11/10/2015	3.9	140	140	0.77	7.34	310	980
	2/16/2016	3.6	150	240	0.79	7.29	290	950
	5/25/2016	3.6	120	140	0.83	7.26	260	1,000
	8/10/2016	4.3	150	120	0.78	7.22	230	970
	10/26/2016	3.0	160	74	0.52	7.30	220	1,000
	2/2/2017	3.7	180	81	0.54	7.16	160	930
	5/10/2017	3.0	150	100	0.44	7.83	340	860
	6/27/2017	2.8	130	110	0.67	7.49	250	930
	Pred. Limit	**4.26**	**275****	**149****	**0.72****	**9.39-6.48****	**413**	**950**
	Pred. Limit*	**NC**	**NC**	**262.2**	**1.06**	**NC**	**NC**	**1,074**
	9/7/2017	2.8	120	120	**0.77**	7.37	290	920
	11/15/2017	4.1	140	120	**0.77**	7.10	270	**1,000**
	5/1/2018	3.2	150	130	0.65	7.31	280	**990**
	10/3/2018	2.5	110	140	**0.89**	7.60	200	860
	5/29/2019	2.8	100	140	**0.82**	7.53	260	860
	12/5/2019	3.7	120	110	**0.93**	7.21	190	940
MW-11 down-gradient	11/10/2015	2.6	120	89	0.61	7.60	180	620
	2/16/2016	3.0	100	88	0.68	7.47	170	640
	5/25/2016	2.8	82	98	0.75	7.43	170	640
	8/10/2016	3.1	96	86	0.72	7.57	150	660
	10/26/2016	2.5	110	67	0.53	7.82	120	630
	2/1/2017	3.9	110	72	0.65	7.54	110	600
	5/10/2017	3.1	95	84	0.46	8.37	170	590
	6/27/2017	2.8	87	90	0.59	7.57	150	680
	Pred. Limit	**4.26**	**275****	**149****	**0.72****	**9.39-6.48****	**413**	**950**
	Pred. Limit*	**NC**	**NC**	**110.6**	**0.88**	**NC**	**NC**	**710**
	9/7/2017	2.8	90	94	0.58	7.40	150	***730***
	11/15/2017	2.9	96	100	0.65	7.41	160	***750***
	5/3/2018	3.8	73	110	0.69	6.74	190	670
	10/3/2018	3.1	78	110	0.66	7.65	120	680
	5/29/2019	2.2	86	110	0.49	7.55	120	610
	12/5/2019	2.5	100	80	0.55	7.26	91	600
MW-12 down-gradient	11/10/2015	2.3	150	160	0.59	7.44	290	1,000
	2/16/2016	1.8	130	140	0.52	7.38	220	850
	5/25/2016	1.9	130	150	0.54	7.23	250	890
	8/10/2016	2.4	170	140	0.49	7.20	280	1000
	10/26/2016	2.6	140	120	0.49	7.44	220	980
	2/1/2017	2.0	160	120	0.48	7.30	150	900
	5/10/2017	2.3	200	240	0.30	7.65	260	1,300
	6/27/2017	2.4	180	280	0.44	7.31	260	1,300
	Pred. Limit	**4.26**	**275****	**149****	**0.72****	**9.39-6.48****	**413**	**950**
	Pred. Limit*	**NC**	**NC**	**338.8**	**0.71**	**NC**	**NC**	**1,519**
	9/6/2017	2.6	190	**270**	0.49	7.26	260	**1,400**
	11/15/2017	1.7	55	**200**	0.47	6.90	250	**1,200**
	5/3/2018	1.8	140	**170**	0.47	6.60	170	**960**
	10/2/2018	F1 2.2	150	**160**	0.49	7.30	170	**1,100**
	5/29/2019	1.9	140	140	0.42	7.23	190	930
	12/5/2019	2.1	140	71	0.53	7.02	110	820

Notes: All units are in mg/l except pH is in standard units.
* - Intrawell Prediction Limit. All others are interwell comparisons.
** - Based on pooled background from MW-5/MW-6. All others based on MW-6 as background.
Italics Date - First round of Detection Monitoring and resample after statistical background establishment.
NC- Not calculated.

BOLD - Potential statistically significant increase relative to interwell Prediction Limit.
BOLD - Potential statistically significant increase relative to intrawell Prediction Limit.
BOLD - Above both interwell and intrawell Prediction Limts
NA - Not analyzed. No confirmation resample required.
R - Resample
F1 - MS and/or MSD Recovery outside of limits.

APPENDIX A
Analytical Data Packages

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ANALYTICAL REPORT

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

Laboratory Job ID: 500-174582-1
Client Project/Site: Will County CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
12/20/2019 9:46:04 AM

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

Table of Contents

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

Job ID: 500-174582-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-174582-1

Comments
No additional comments.

Receipt
The samples were received on 12/5/2019 5:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.0º C.

Metals
No analytical or quality issues were noted, other than those described 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: Will County CCR

Job ID: 500-174582-1

Method	Method Description	Protocol	Laboratory
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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

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: Will County CCR

Job ID: 500-174582-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-174582-1	MW-12	Water	12/05/19 10:43	12/05/19 17:55	
500-174582-2	MW-10	Water	12/05/19 11:56	12/05/19 17:55	
500-174582-3	MW-11	Water	12/05/19 13:25	12/05/19 17:55	

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

Client Sample ID: MW-12

Date Collected: 12/05/19 10:43
Date Received: 12/05/19 17:55

Lab Sample ID: 500-174582-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.1		0.25		mg/L		12/10/19 18:42	12/12/19 10:54	5
Calcium	140		0.20		mg/L		12/10/19 18:42	12/11/19 13:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		10		mg/L			12/09/19 03:06	1
Chloride	71		10		mg/L			12/14/19 15:38	5
Fluoride	0.53		0.10		mg/L			12/14/19 15:36	1
Sulfate	110		100		mg/L			12/18/19 15:10	20

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

Client Sample ID: MW-10

Date Collected: 12/05/19 11:56
Date Received: 12/05/19 17:55

Lab Sample ID: 500-174582-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3.7		0.50		mg/L		12/10/19 18:42	12/12/19 10:58	10
Calcium	120		0.20		mg/L		12/10/19 18:42	12/11/19 13:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	940		10		mg/L			12/09/19 03:09	1
Chloride	110		10		mg/L			12/17/19 13:29	5
Fluoride	0.93		0.10		mg/L			12/14/19 15:40	1
Sulfate	190		100		mg/L			12/18/19 15:10	20

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

Client Sample ID: MW-11

Date Collected: 12/05/19 13:25
Date Received: 12/05/19 17:55

Lab Sample ID: 500-174582-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.5		0.25		mg/L		12/10/19 18:42	12/12/19 11:01	5
Calcium	100		0.20		mg/L		12/10/19 18:42	12/11/19 13:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	600		10		mg/L			12/09/19 03:11	1
Chloride	80		10		mg/L			12/17/19 13:30	5
Fluoride	0.55		0.10		mg/L			12/14/19 15:43	1
Sulfate	91		25		mg/L			12/18/19 15:10	5

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)

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

Metals

Prep Batch: 519863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-1	MW-12	Total Recoverable	Water	3005A	
500-174582-2	MW-10	Total Recoverable	Water	3005A	
500-174582-3	MW-11	Total Recoverable	Water	3005A	
MB 500-519863/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-519863/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 520200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-1	MW-12	Total Recoverable	Water	6020A	519863
500-174582-2	MW-10	Total Recoverable	Water	6020A	519863
500-174582-3	MW-11	Total Recoverable	Water	6020A	519863
MB 500-519863/1-A	Method Blank	Total Recoverable	Water	6020A	519863
LCS 500-519863/2-A	Lab Control Sample	Total Recoverable	Water	6020A	519863

Analysis Batch: 520311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-1	MW-12	Total Recoverable	Water	6020A	519863
500-174582-2	MW-10	Total Recoverable	Water	6020A	519863
500-174582-3	MW-11	Total Recoverable	Water	6020A	519863
MB 500-519863/1-A	Method Blank	Total Recoverable	Water	6020A	519863
LCS 500-519863/2-A	Lab Control Sample	Total Recoverable	Water	6020A	519863

General Chemistry

Analysis Batch: 470734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-1	MW-12	Total/NA	Water	SM 4500 SO4 E	
500-174582-2	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-174582-3	MW-11	Total/NA	Water	SM 4500 SO4 E	
MB 400-470734/17	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-470734/22	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-470734/14	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 519435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-1	MW-12	Total/NA	Water	SM 2540C	
500-174582-2	MW-10	Total/NA	Water	SM 2540C	
500-174582-3	MW-11	Total/NA	Water	SM 2540C	
MB 500-519435/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-519435/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 520628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-1	MW-12	Total/NA	Water	SM 4500 F C	
500-174582-2	MW-10	Total/NA	Water	SM 4500 F C	
500-174582-3	MW-11	Total/NA	Water	SM 4500 F C	
MB 500-520628/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-520628/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

General Chemistry

Analysis Batch: 520840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-1	MW-12	Total/NA	Water	SM 4500 Cl- E	
MB 500-520840/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-520840/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 521099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174582-2	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-174582-3	MW-11	Total/NA	Water	SM 4500 Cl- E	
MB 500-521099/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-521099/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-519863/1-A
Matrix: Water
Analysis Batch: 520200

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.20		0.20		mg/L		12/10/19 18:42	12/11/19 12:30	1

Lab Sample ID: MB 500-519863/1-A
Matrix: Water
Analysis Batch: 520311

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/10/19 18:42	12/12/19 10:46	1

Lab Sample ID: LCS 500-519863/2-A
Matrix: Water
Analysis Batch: 520200

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	9.41		mg/L		94	80 - 120

Lab Sample ID: LCS 500-519863/2-A
Matrix: Water
Analysis Batch: 520311

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.07		mg/L		107	80 - 120

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

Lab Sample ID: MB 500-519435/1
Matrix: Water
Analysis Batch: 519435

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			12/09/19 02:33	1

Lab Sample ID: LCS 500-519435/2
Matrix: Water
Analysis Batch: 519435

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

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-520840/12
Matrix: Water
Analysis Batch: 520840

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			12/14/19 14:47	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-520840/13
Matrix: Water
Analysis Batch: 520840

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	50.3		mg/L		101	85 - 115		

Lab Sample ID: MB 500-521099/12
Matrix: Water
Analysis Batch: 521099

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			12/17/19 13:27	1

Lab Sample ID: LCS 500-521099/13
Matrix: Water
Analysis Batch: 521099

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	48.5		mg/L		97	85 - 115		

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-520628/3
Matrix: Water
Analysis Batch: 520628

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			12/14/19 14:13	1

Lab Sample ID: LCS 500-520628/4
Matrix: Water
Analysis Batch: 520628

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 400-470734/17
Matrix: Water
Analysis Batch: 470734

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			12/18/19 13:58	1

Lab Sample ID: LCS 400-470734/22
Matrix: Water
Analysis Batch: 470734

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	14.3		mg/L		96	90 - 110		

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-470734/14
Matrix: Water
Analysis Batch: 470734

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		93	50 - 150		

Chain of Custody Record

387630

eurofins | Environment Testing TestAmerica

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: Eric Lamy	Site Contact:	Date:	COC No:
Company Name: KPRG and Assoc.	Tel/Email:	Lab Contact:	Carrier:	_____ of _____ COCs
Address: 414 Plaza Dr,	Analysis Turnaround Time			Sampler:
City/State/Zip: Westmont, IL	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone:	TAT if different from Below 3 Day			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: NRG Will Co CCR	☐ 1 week			
Site:	☐ 2 days			Job / SDG No.:
P O #	☐ 1 day			500-174582

500-174582 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)	MoD 6020A	Chloride SM4500	Fluoride 4500	Sulfate SM4500	TDS 2540C	Sample Specific Notes:
1	MW-12	12/5	1043	G	W		Y		X	X	X	X	X	
2	MW-10	↓	1156	G	W		Y		X	X	X	X	X	
3	MW-11	↓	1325	G	W		Y		X	X	X	X	X	

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: 5.0 Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	KPRG	12-5-19 1755			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			Paula Blakley	TA	12/5/19 1755

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: 500-129373.1
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 #: 500-174582-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 12/17/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Will County CCR	Project #: 50011609			
Site: NRG Midwest Generation Will County	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:						
MW-12 (500-174582-1)	12/5/19	10:43 Central		Water			X	1	
MW-10 (500-174582-2)	12/5/19	11:56 Central		Water			X	1	
MW-11 (500-174582-3)	12/5/19	13:25 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.

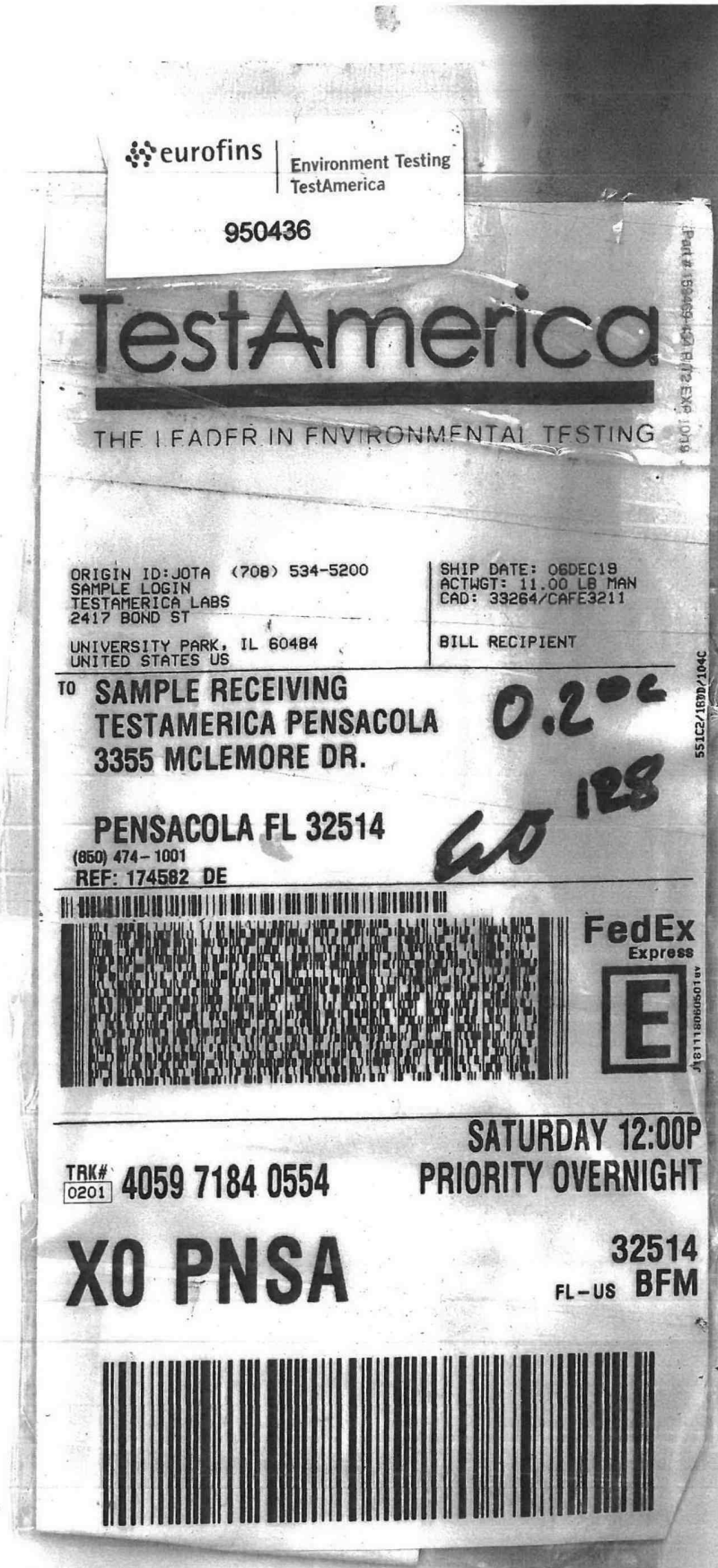
Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	12/6/19 1700	TA	Eodum	12-7-19 825	TAPen
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: ~~0.6~~ 0.2°C 1128

Ver: 01/16/2019


eurofins
Environment Testing
TestAmerica
950436
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
ORIGIN ID:JOTA (708) 534-5200
SAMPLE LOGIN
TESTAMERICA LABS
2417 BOND ST
UNIVERSITY PARK, IL 60484
UNITED STATES US
SHIP DATE: 06DEC19
ACTWGT: 11.00 LB MAN
CAD: 33264/CAFE3211
BILL RECIPIENT
TO SAMPLE RECEIVING
TESTAMERICA PENSACOLA
3355 MCLEMORE DR.
PENSACOLA FL 32514
(850) 474-1001
REF: 174582 DE
0.2°C
40 128
FedEx
Express
SATURDAY 12:00P
PRIORITY OVERNIGHT
TRK# 0201 4059 7184 0554
XO PNSA
32514
FL-US BFM

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-174582-1

Login Number: 174582
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	5.0
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: 500-174582-1

Login Number: 174582
List Number: 2
Creator: Odum, Edward L

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/07/19 10:49 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	0.2°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	

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174582-1

Client Sample ID: MW-12

Lab Sample ID: 500-174582-1

Date Collected: 12/05/19 10:43

Matrix: Water

Date Received: 12/05/19 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	520200	12/11/19 13:27	FXG	TAL CHI
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	520311	12/12/19 10:54	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	519435	12/09/19 03:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	520840	12/14/19 15:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	520628	12/14/19 15:36	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	470734	12/18/19 15:10	RRC	TAL PEN

Client Sample ID: MW-10

Lab Sample ID: 500-174582-2

Date Collected: 12/05/19 11:56

Matrix: Water

Date Received: 12/05/19 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	520200	12/11/19 13:31	FXG	TAL CHI
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	520311	12/12/19 10:58	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	519435	12/09/19 03:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521099	12/17/19 13:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	520628	12/14/19 15:40	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	470734	12/18/19 15:10	RRC	TAL PEN

Client Sample ID: MW-11

Lab Sample ID: 500-174582-3

Date Collected: 12/05/19 13:25

Matrix: Water

Date Received: 12/05/19 17:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	520200	12/11/19 13:35	FXG	TAL CHI
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	520311	12/12/19 11:01	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	519435	12/09/19 03:11	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521099	12/17/19 13:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	520628	12/14/19 15:43	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	470734	12/18/19 15:10	RRC	TAL PEN

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

ANALYTICAL REPORT

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

Laboratory Job ID: 500-166219-1
Client Project/Site: Will County CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
7/10/2019 9:36:07 AM

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

Table of Contents

Case Narrative

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-166219-1

Job ID: 500-166219-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-166219-1

Comments
No additional comments.

Receipt
The sample was received on 7/3/2019 3:50 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 9.4° C.

Metals
No analytical or quality issues were noted, other than those described 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: Will County CCR

Job ID: 500-166219-1

Method	Method Description	Protocol	Laboratory
6020A	Metals (ICP/MS)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

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: Will County CCR

Job ID: 500-166219-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-166219-1	MW-06	Water	07/03/19 14:36	07/03/19 15:50	

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-166219-1

Client Sample ID: MW-06
Date Collected: 07/03/19 14:36
Date Received: 07/03/19 15:50

Lab Sample ID: 500-166219-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	3.2		0.050		mg/L		07/05/19 08:36	07/05/19 16:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			07/04/19 20:30	1

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-166219-1

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)

QC Association Summary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-166219-1

Metals

Prep Batch: 493474

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-166219-1	MW-06	Total Recoverable	Water	3005A	
MB 500-493474/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-493474/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 493751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-166219-1	MW-06	Total Recoverable	Water	6020A	493474
MB 500-493474/1-A	Method Blank	Total Recoverable	Water	6020A	493474
LCS 500-493474/2-A	Lab Control Sample	Total Recoverable	Water	6020A	493474

General Chemistry

Analysis Batch: 493422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-166219-1	MW-06	Total/NA	Water	SM 2540C	
MB 500-493422/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-493422/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-166219-1 MS	MW-06	Total/NA	Water	SM 2540C	
500-166219-1 DU	MW-06	Total/NA	Water	SM 2540C	

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-166219-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-493474/1-A
Matrix: Water
Analysis Batch: 493751

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 493474

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		07/05/19 08:36	07/05/19 15:23	1

Lab Sample ID: LCS 500-493474/2-A
Matrix: Water
Analysis Batch: 493751

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 493474

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.00		mg/L		100	80 - 120

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

Lab Sample ID: MB 500-493422/1
Matrix: Water
Analysis Batch: 493422

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			07/04/19 20:10	1

Lab Sample ID: LCS 500-493422/2
Matrix: Water
Analysis Batch: 493422

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: 500-166219-1 MS
Matrix: Water
Analysis Batch: 493422

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	740		250	974		mg/L		92	75 - 125

Lab Sample ID: 500-166219-1 DU
Matrix: Water
Analysis Batch: 493422

Client Sample ID: MW-06
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	740		764		mg/L		3	5

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: Richard Graf
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)

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

Chain of Custody Record

Lab Job #: 500-166219

Chain of Custody Number:

Page 1 of 1

30qt

Temperature °C of Cooler: 9.4

Client	Client Project #	Preservative	3	8								
KPRG	12313.3											
Project Name: Will Cty CCR		Parameter	Boron	TDS								
Project Location/State: IL	Lab Project #											
Sampler: Erin Burson	Lab PM											

500-166219 COC

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix									Comments
1		MW-06	7/3	1430	2	W	X	X							

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 X 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]	KPRG	7/3	1550	Paula Buckley	TACHI	7/3/19	1550
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 X

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)

7/10/2019

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-166219-1

Login Number: 166219
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	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	9.4
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: Will County CCR

Job ID: 500-166219-1

Client Sample ID: MW-06

Date Collected: 07/03/19 14:36
Date Received: 07/03/19 15:50

Lab Sample ID: 500-166219-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			493474	07/05/19 08:36	SAH	TAL CHI
Total Recoverable	Analysis	6020A		1	493751	07/05/19 16:55	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	493422	07/04/19 20:30	CLB	TAL CHI

Laboratory References:

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: 500-174781-1
Client Project/Site: Will County CCR

For:
KPRG and Associates, Inc.
14665 West Lisbon Road,
Suite 1A
Brookfield, Wisconsin 53005

Attn: Richard Gnat

Authorized for release by:
12/20/2019 9:53:19 AM

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

Table of Contents

Job ID: 500-174781-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative
500-174781-1

Comments
No additional comments.

Receipt
The samples were received on 12/9/2019 3:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

Receipt Exceptions
The following sample was submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): MW-05 (500-174781-4) Added to COC and logged in.

Metals
No analytical or quality issues were noted, other than those described 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: Will County CCR

Job ID: 500-174781-1

Method	Method Description	Protocol	Laboratory
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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI

Protocol References:

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: Will County CCR

Job ID: 500-174781-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-174781-1	MW-06	Water	12/06/19 17:56	12/09/19 15:15	
500-174781-2	MW-09	Water	12/06/19 15:49	12/09/19 15:15	
500-174781-3	Duplicate	Water	12/06/19 17:56	12/09/19 15:15	
500-174781-4	MW-05	Water	12/06/19 11:32	12/09/19 15:15	

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174781-1

Client Sample ID: MW-06

Date Collected: 12/06/19 17:56
Date Received: 12/09/19 15:15

Lab Sample ID: 500-174781-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.2		0.50		mg/L		12/10/19 18:42	12/12/19 11:05	10
Calcium	98		0.20		mg/L		12/10/19 18:42	12/11/19 14:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			12/11/19 04:58	1
Chloride	31		2.0		mg/L			12/17/19 18:02	1
Fluoride	0.33		0.10		mg/L			12/14/19 17:51	1
Sulfate	210		100		mg/L			12/18/19 15:14	20

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174781-1

Client Sample ID: MW-09

Date Collected: 12/06/19 15:49
Date Received: 12/09/19 15:15

Lab Sample ID: 500-174781-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	2.0		0.25		mg/L		12/10/19 18:42	12/12/19 11:09	5
Calcium	38		0.20		mg/L		12/10/19 18:42	12/11/19 14:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	630		10		mg/L			12/11/19 05:01	1
Chloride	140		10		mg/L			12/17/19 18:36	5
Fluoride	0.46		0.10		mg/L			12/14/19 17:55	1
Sulfate	160		100		mg/L			12/18/19 15:14	20

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174781-1

Client Sample ID: Duplicate

Date Collected: 12/06/19 17:56
Date Received: 12/09/19 15:15

Lab Sample ID: 500-174781-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.0		0.50		mg/L		12/10/19 18:42	12/12/19 11:13	10
Calcium	98		0.20		mg/L		12/10/19 18:42	12/11/19 14:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	740		10		mg/L			12/11/19 05:03	1
Chloride	29		2.0		mg/L			12/17/19 18:07	1
Fluoride	0.33		0.10		mg/L			12/14/19 18:10	1
Sulfate	210		100		mg/L			12/18/19 15:14	20

Client Sample Results

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174781-1

Client Sample ID: MW-05

Date Collected: 12/06/19 11:32
Date Received: 12/09/19 15:15

Lab Sample ID: 500-174781-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	4.9		1.0		mg/L		12/10/19 18:42	12/12/19 11:17	20
Calcium	170		0.20		mg/L		12/10/19 18:42	12/11/19 14:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10		mg/L			12/11/19 05:06	1
Chloride	31		2.0		mg/L			12/17/19 18:09	1
Fluoride	0.41		0.10		mg/L			12/14/19 18:13	1
Sulfate	440		100		mg/L			12/18/19 15:14	20

Definitions/Glossary

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174781-1

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: 519863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-1	MW-06	Total Recoverable	Water	3005A	
500-174781-2	MW-09	Total Recoverable	Water	3005A	
500-174781-3	Duplicate	Total Recoverable	Water	3005A	
500-174781-4	MW-05	Total Recoverable	Water	3005A	
MB 500-519863/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-519863/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 520200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-1	MW-06	Total Recoverable	Water	6020A	519863
500-174781-2	MW-09	Total Recoverable	Water	6020A	519863
500-174781-3	Duplicate	Total Recoverable	Water	6020A	519863
500-174781-4	MW-05	Total Recoverable	Water	6020A	519863
MB 500-519863/1-A	Method Blank	Total Recoverable	Water	6020A	519863
LCS 500-519863/2-A	Lab Control Sample	Total Recoverable	Water	6020A	519863

Analysis Batch: 520311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-1	MW-06	Total Recoverable	Water	6020A	519863
500-174781-2	MW-09	Total Recoverable	Water	6020A	519863
500-174781-3	Duplicate	Total Recoverable	Water	6020A	519863
500-174781-4	MW-05	Total Recoverable	Water	6020A	519863
MB 500-519863/1-A	Method Blank	Total Recoverable	Water	6020A	519863
LCS 500-519863/2-A	Lab Control Sample	Total Recoverable	Water	6020A	519863

General Chemistry

Analysis Batch: 470734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-1	MW-06	Total/NA	Water	SM 4500 SO4 E	
500-174781-2	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-174781-3	Duplicate	Total/NA	Water	SM 4500 SO4 E	
500-174781-4	MW-05	Total/NA	Water	SM 4500 SO4 E	
MB 400-470734/17	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-470734/22	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-470734/14	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 519871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-1	MW-06	Total/NA	Water	SM 2540C	
500-174781-2	MW-09	Total/NA	Water	SM 2540C	
500-174781-3	Duplicate	Total/NA	Water	SM 2540C	
500-174781-4	MW-05	Total/NA	Water	SM 2540C	
MB 500-519871/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-519871/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 520628

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-1	MW-06	Total/NA	Water	SM 4500 F C	
500-174781-2	MW-09	Total/NA	Water	SM 4500 F C	
500-174781-3	Duplicate	Total/NA	Water	SM 4500 F C	

General Chemistry (Continued)

Analysis Batch: 520628 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-4	MW-05	Total/NA	Water	SM 4500 F C	
MB 500-520628/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-520628/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 521145

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-174781-1	MW-06	Total/NA	Water	SM 4500 Cl- E	
500-174781-2	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-174781-3	Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-174781-4	MW-05	Total/NA	Water	SM 4500 Cl- E	
MB 500-521145/12	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-521145/13	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-174781-3 MS	Duplicate	Total/NA	Water	SM 4500 Cl- E	
500-174781-3 MSD	Duplicate	Total/NA	Water	SM 4500 Cl- E	

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-519863/1-A
Matrix: Water
Analysis Batch: 520200

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.20		0.20		mg/L		12/10/19 18:42	12/11/19 12:30	1

Lab Sample ID: MB 500-519863/1-A
Matrix: Water
Analysis Batch: 520311

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		12/10/19 18:42	12/12/19 10:46	1

Lab Sample ID: LCS 500-519863/2-A
Matrix: Water
Analysis Batch: 520200

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	10.0	9.41		mg/L		94	80 - 120

Lab Sample ID: LCS 500-519863/2-A
Matrix: Water
Analysis Batch: 520311

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 519863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	1.07		mg/L		107	80 - 120

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

Lab Sample ID: MB 500-519871/1
Matrix: Water
Analysis Batch: 519871

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			12/11/19 04:07	1

Lab Sample ID: LCS 500-519871/2
Matrix: Water
Analysis Batch: 519871

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	274		mg/L		110	80 - 120

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-521145/12
Matrix: Water
Analysis Batch: 521145

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			12/17/19 17:56	1

Method: SM 4500 Cl- E - Chloride, Total (Continued)

Lab Sample ID: LCS 500-521145/13
Matrix: Water
Analysis Batch: 521145

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	50.2		mg/L		100	85 - 115		

Lab Sample ID: 500-174781-3 MS
Matrix: Water
Analysis Batch: 521145

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Chloride	29		50.0	75.9		mg/L		93	75 - 125		

Lab Sample ID: 500-174781-3 MSD
Matrix: Water
Analysis Batch: 521145

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	29		50.0	75.4		mg/L		92	75 - 125	1	20

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-520628/31
Matrix: Water
Analysis Batch: 520628

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			12/14/19 16:29	1

Lab Sample ID: LCS 500-520628/32
Matrix: Water
Analysis Batch: 520628

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		

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 400-470734/17
Matrix: Water
Analysis Batch: 470734

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			12/18/19 13:58	1

Lab Sample ID: LCS 400-470734/22
Matrix: Water
Analysis Batch: 470734

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	14.3		mg/L		96	90 - 110		

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174781-1

Method: SM 4500 SO4 E - Sulfate, Total (Continued)

Lab Sample ID: MRL 400-470734/14
Matrix: Water
Analysis Batch: 470734

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		93	50 - 150

TestAmerica

THE LEADER IN ENVIRONMENTAL

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

500-174781 COC

Chain of Custody Record

Lab Job #: 500-174781

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler: 3.4

Report To (optional)	Bill To (optional)
Contact:	Contact:
Company: KPRG and Associates	Company:
Address:	Address:
Address:	Address:
Phone:	Phone:
Fax:	Fax:
E-Mail:	PO#/Reference#

Client: KPRG	Client Project #:	Preservative:	
Project Name: NRG Will Co. CCR		Parameter:	
Project Location/State: Romeoville, IL	Lab Project #:		
Sampler: Mark Wilson	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	MOD 6020A Chloride SM4500	Fluoride 4500 Sulfate SM4500	TDS 2540C	Comments
1		MW-6	12-6-19	1756		W	X	X	X	
2		MW-9		1549			X	X	X	
3		DUP		1756			X	X	X	
4		MW-05		1132						Added by TA

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
Mark Wilson	KPRG	12-9-19	1355		TA	12/9/19	1355
	TA	12/9/19	1515		TA-CHI	12/9/19	1515

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:

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: 500-129484.1
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 #: 500-174781-1
Address: 3355 McLemore Drive, ,	Due Date Requested: 12/23/2019			
City: Pensacola	TAT Requested (days):			
State, Zip: FL, 32514				
Phone: 850-474-1001(Tel) 850-478-2671(Fax)	PO #:			
Email:	WO #:			
Project Name: Will County CCR	Project #: 50011609			
Site: NRG Midwest Generation Will County	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:						
MW-06 (500-174781-1)	12/6/19	17:56 Central		Water			X	1	
MW-09 (500-174781-2)	12/6/19	15:49 Central		Water			X	1	
Duplicate (500-174781-3)	12/6/19	17:56 Central		Water			X	1	
MW-05 (500-174781-4)	12/6/19	11:32 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
1	Stephanie Hernandez	12/10/19 16:00	TA		12/11/19 9:08	TAL
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: 0.4°C IR7

Ver: 01/16/2019

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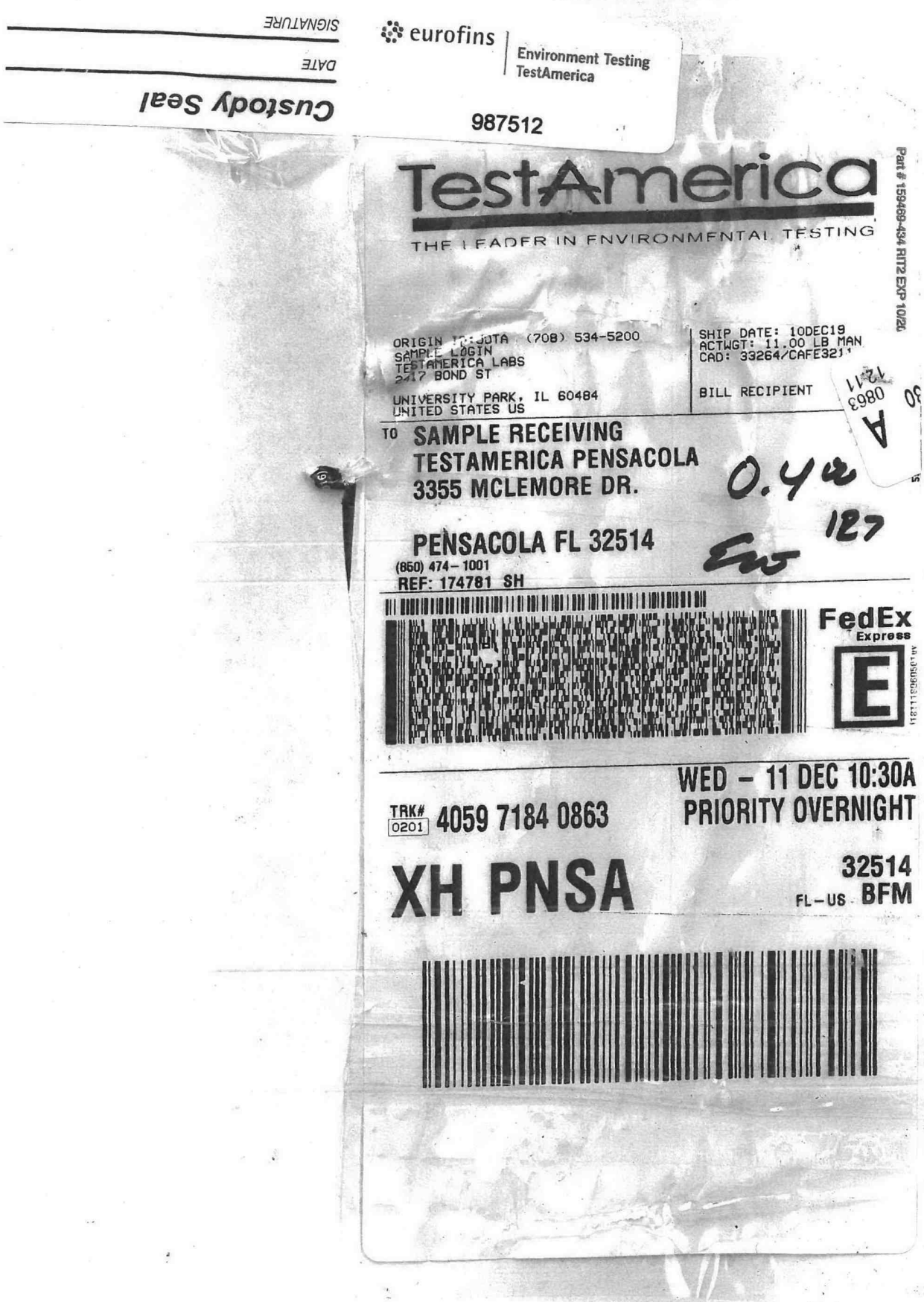
12/20/2019


SIGNATURE
DATE
Custody Seal
eurofins
Environment Testing
TestAmerica
987512
TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Part # 158468-434 REV2 EXP 10/20
ORIGIN ID: JOTA (708) 534-5200
SAMPLE LOGIN
TESTAMERICA LABS
2417 BOND ST
UNIVERSITY PARK, IL 60484
UNITED STATES US
SHIP DATE: 10DEC19
ACTWGT: 11.00 LB MAN
CAD: 33264/CAFE3211
BILL RECIPIENT
TO SAMPLE RECEIVING
TESTAMERICA PENSACOLA
3355 MCLEMORE DR.
PENSACOLA FL 32514
(850) 474-1001
REF: 174781 SH
0.42
127
FedEx
Express
TRK# 0201 4059 7184 0863
WED - 11 DEC 10:30A
PRIORITY OVERNIGHT
XH PNSA
32514
FL-US BFM

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-174781-1

Login Number: 174781
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	3.4
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.	False	
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: 500-174781-1

Login Number: 174781
List Number: 2
Creator: Odum, Edward L

List Source: Eurofins TestAmerica, Pensacola
List Creation: 12/11/19 05:42 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	0.4°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: Will County CCR

Job ID: 500-174781-1

Client Sample ID: MW-06

Lab Sample ID: 500-174781-1

Date Collected: 12/06/19 17:56

Matrix: Water

Date Received: 12/09/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	520200	12/11/19 14:06	FXG	TAL CHI
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	520311	12/12/19 11:05	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	519871	12/11/19 04:58	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	521145	12/17/19 18:02	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	520628	12/14/19 17:51	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	470734	12/18/19 15:14	RRC	TAL PEN

Client Sample ID: MW-09

Lab Sample ID: 500-174781-2

Date Collected: 12/06/19 15:49

Matrix: Water

Date Received: 12/09/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	520200	12/11/19 14:10	FXG	TAL CHI
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	520311	12/12/19 11:09	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	519871	12/11/19 05:01	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	521145	12/17/19 18:36	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	520628	12/14/19 17:55	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	470734	12/18/19 15:14	RRC	TAL PEN

Client Sample ID: Duplicate

Lab Sample ID: 500-174781-3

Date Collected: 12/06/19 17:56

Matrix: Water

Date Received: 12/09/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	520200	12/11/19 14:13	FXG	TAL CHI
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	520311	12/12/19 11:13	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	519871	12/11/19 05:03	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	521145	12/17/19 18:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	520628	12/14/19 18:10	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	470734	12/18/19 15:14	RRC	TAL PEN

Client Sample ID: MW-05

Lab Sample ID: 500-174781-4

Date Collected: 12/06/19 11:32

Matrix: Water

Date Received: 12/09/19 15:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	520200	12/11/19 14:17	FXG	TAL CHI

Lab Chronicle

Client: KPRG and Associates, Inc.
Project/Site: Will County CCR

Job ID: 500-174781-1

Client Sample ID: MW-05

Date Collected: 12/06/19 11:32
Date Received: 12/09/19 15:15

Lab Sample ID: 500-174781-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			519863	12/10/19 18:42	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	520311	12/12/19 11:17	FXG	TAL CHI
Total/NA	Analysis	SM 2540C		1	519871	12/11/19 05:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	521145	12/17/19 18:09	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	520628	12/14/19 18:13	MS	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	470734	12/18/19 15:14	RRC	TAL PEN

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