



ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

**CCR COMPLIANCE
ANNUAL GROUNDWATER MONITORING and
CORRECTIVE ACTION REPORT - 2018
FORMER ASH BASIN**

**Midwest Generation, LLC
Powerton Station
13082 E. Manito Rd.
Pekin, IL 61554**

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January 31, 2019

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1.0 INTRODUCTION

With the vacating of Section 257.100(b) through (d) in October 2016, the inactive Former Ash Basin (FAB), which is being planned for closure, was added to the CCR units that would require monitoring under the CCR Rule. Wells MW-02 through MW-05 and MW-10 were added to the CCR sampling program specifically for the FAB and are not part of the monitoring program for the Ash By-pass Basin (ABB) and Ash Surge Basin (ASB). Well MW-01 is also part of the FAB CCR monitoring program and it is a well that is also part of the CCR monitoring program for the ABB and ASB. Well MW-01 and MW-10 are upgradient wells and wells MW-02 through MW-05 are downgradient wells.

This annual report covers the work performed relative to CCR groundwater monitoring from January 1, 2018 through the end of 2018 for the FAB. It does not duplicate information or activities previously reported for 2017. 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, summarizes the analytical data generated to date and provides a discussion of the statistical evaluations in the process of being completed. The annual report for the ABB and ASB, which are in assessment monitoring, is provided under separate cover.

2.0 FIELD PROCEDURES AND GROUNDWATER FLOW EVALUATION

2.1 Field Procedures

As previously noted, the CCR groundwater monitoring network around the FAB consists of monitoring wells MW-01 (upgradient), MW-02 through MW-05 (downgradient), and MW-10 (upgradient) 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). All wells were found in generally good condition.

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. To fulfill initial detection monitoring requirements under Section 257.94(b), the first eight rounds of groundwater sampling are to include the analysis of all compounds listed in the CCR Rule, Part 257, Appendices III and IV to facilitate development of statistical background water quality. It is noted that two rounds of sampling are still required for wells MW-02 through MW-04 and MW-10 as the sampling of these wells was initiated after the interpretation was made that the FAB, which is an inactive unit, was to be considered to be regulated under the revisions to the initial CCR Rule.

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. Unlike the CCR monitoring network for the ABB/ASB which includes monitoring wells within both a shallow localized clay/silty clay unit and a deeper more extensive sand unit, all wells associated with the FAB monitoring are screened within the extensive sand unit which underlies the area (i.e., the localized shallow clay/silty clay unit does not extend beneath the FAB). Groundwater flow maps from the sampling performed in 2018 relative to the FAB are provided on Figures 2 through 5.

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:

$$V_s = \frac{Kdh}{n_e dl}, \text{ where}$$

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 hydraulic conductivity of 3.81×10^{-3} (sandy unit) 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 sandy materials (0.35) were obtained from literature (Applied Hydrogeology, Fetter, 1980).

3.0 ANALYTICAL DATA AND STATUS OF EVALUATIONS

The analytical data from the FAB initial groundwater sampling to date for Appendix III and IV parameters are provided in Tables 3 and 4, respectively. The analytical data packages are included in Appendix A. As previously noted, this data is being collected as part of initial detection monitoring requirements under 257.94(b). All tables include the sample dates and whether the specific well is considered upgradient or downgradient relative to groundwater flow and the regulated unit.

Once the first eight rounds of initial Appendix III and Appendix IV sampling are completed for all of the designated monitoring wells, the data will be statistically evaluated to establish background water quality in accordance with procedures defined in CCR Compliance Statistical Approach for Groundwater Data Evaluation, Midwest Generation Powerton Generating Station dated October 10, 2017. This includes outlier testing, spatial/temporal variability testing, distributional testing, and the establishment of Prediction Limits for all Appendix III compounds to which the ninth round of groundwater detection monitoring data will be compared to determine whether there may be a statistically significant increase (SSI) for a specific compound at each well location. The evaluations will be performed with the assistance of the SanitasTM statistical software package.

4.0 SUMMARY/CONCLUSIONS AND RECOMMENDATIONS

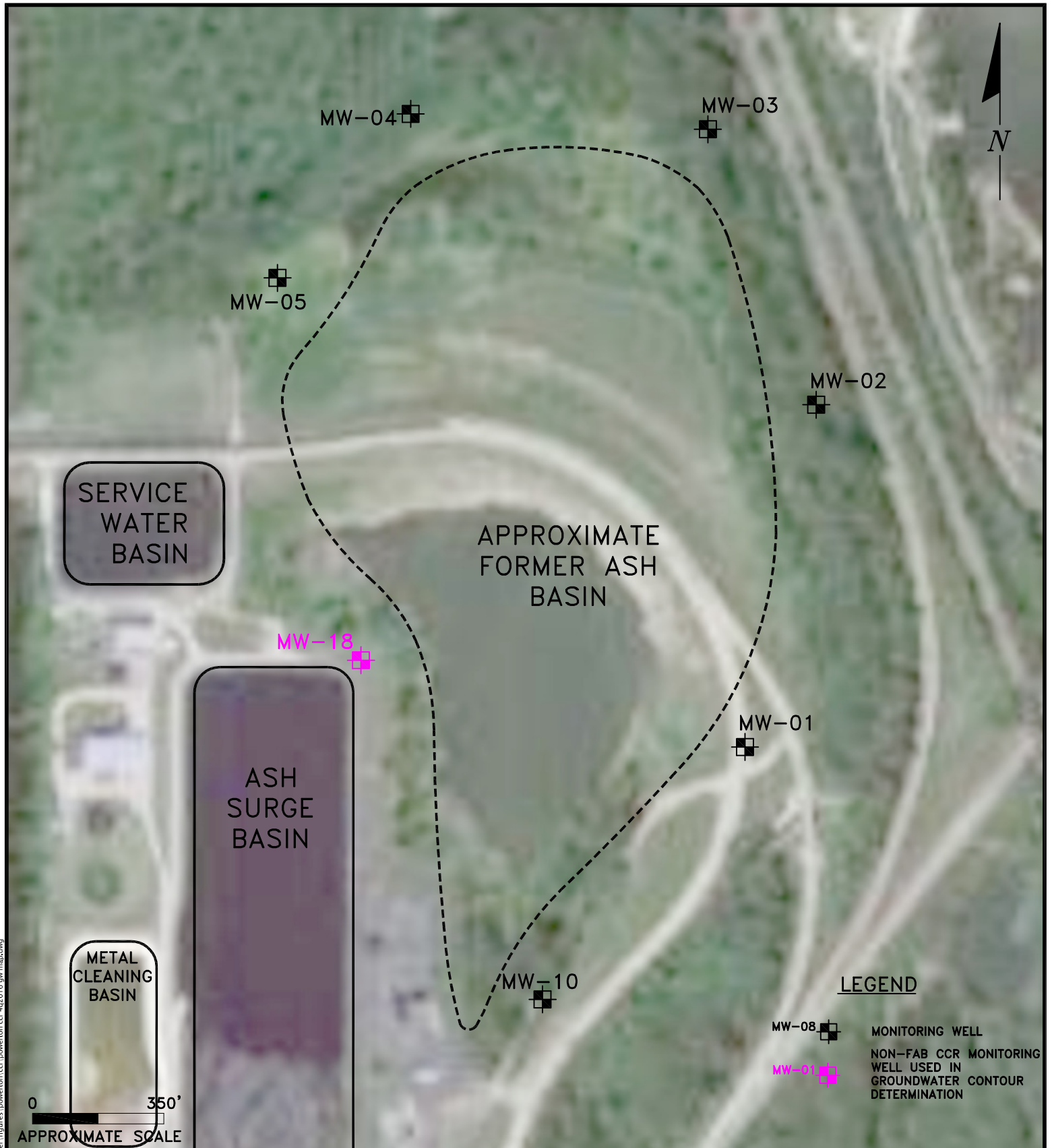
The FAB is in initial detection monitoring in accordance with the CCR Rule. The first eight rounds of groundwater sampling for both Appendix III and Appendix IV parameters will be completed in 2019 at which point a statistical evaluation will be completed for Appendix III parameters in accordance with the CCR Compliance Statistical Approach for Groundwater Data Evaluation, Midwest Generation Powerton Generating Station dated October 10, 2017. Once the statistical evaluations are completed, appropriate recommendations will be made relative to continued compliance with the CCR Rule.

Based on an evaluation of groundwater flow conditions over the reporting period shows that the flow system has been fairly consistent over time between sampling events. The existing monitoring well network appears to be sufficient for the intended purposes of CCR Rule groundwater monitoring of the regulated units. No additional monitoring well installations are proposed at this time based on the groundwater flow evaluation.

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 – Powerton Generating Station, Pekin, IL. February 2011.
- KPRG and Associates, Inc., CCR Compliance Monitoring, Sampling and Analysis Plan, Midwest Generation, LLC Powerton Generating Station. October 10, 2017.
- KPRG and Associates, Inc., CCR Compliance Statistical Approach for Groundwater Data Evaluation, Midwest Generation, LLC Powerton Generating Station. October 10, 2017.
- C.W. Fetter, Jr., Applied Hydrogeology. Charles E. Merrill Publishing Co., 1980.
- R.A. Freeze and J.A. Cherry, Groundwater. Prentice-Hall, Inc. Publishing Co., 1979.

FIGURES



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FORMER ASH BASIN CCR MONITORING WELL SITE MAP

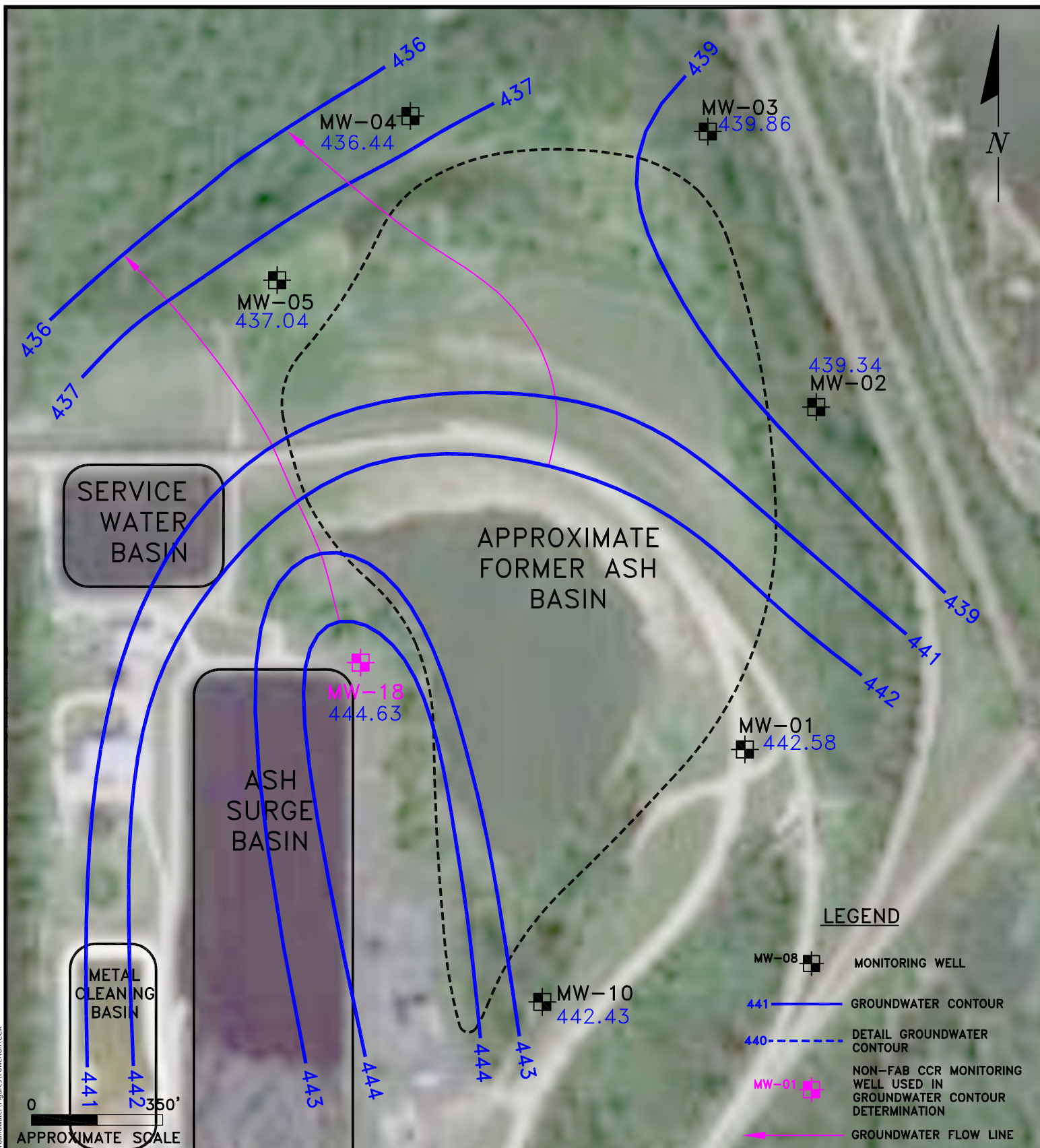
POWERTON STATION
PEKIN, ILLINOIS

Scale: 1" = 350'

Date: January 07, 2019

KPRG Project No. 12313.1

FIGURE 1



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CCR GROUNDWATER CONTOUR MAP FOR FORMER ASH BASIN 05/2018

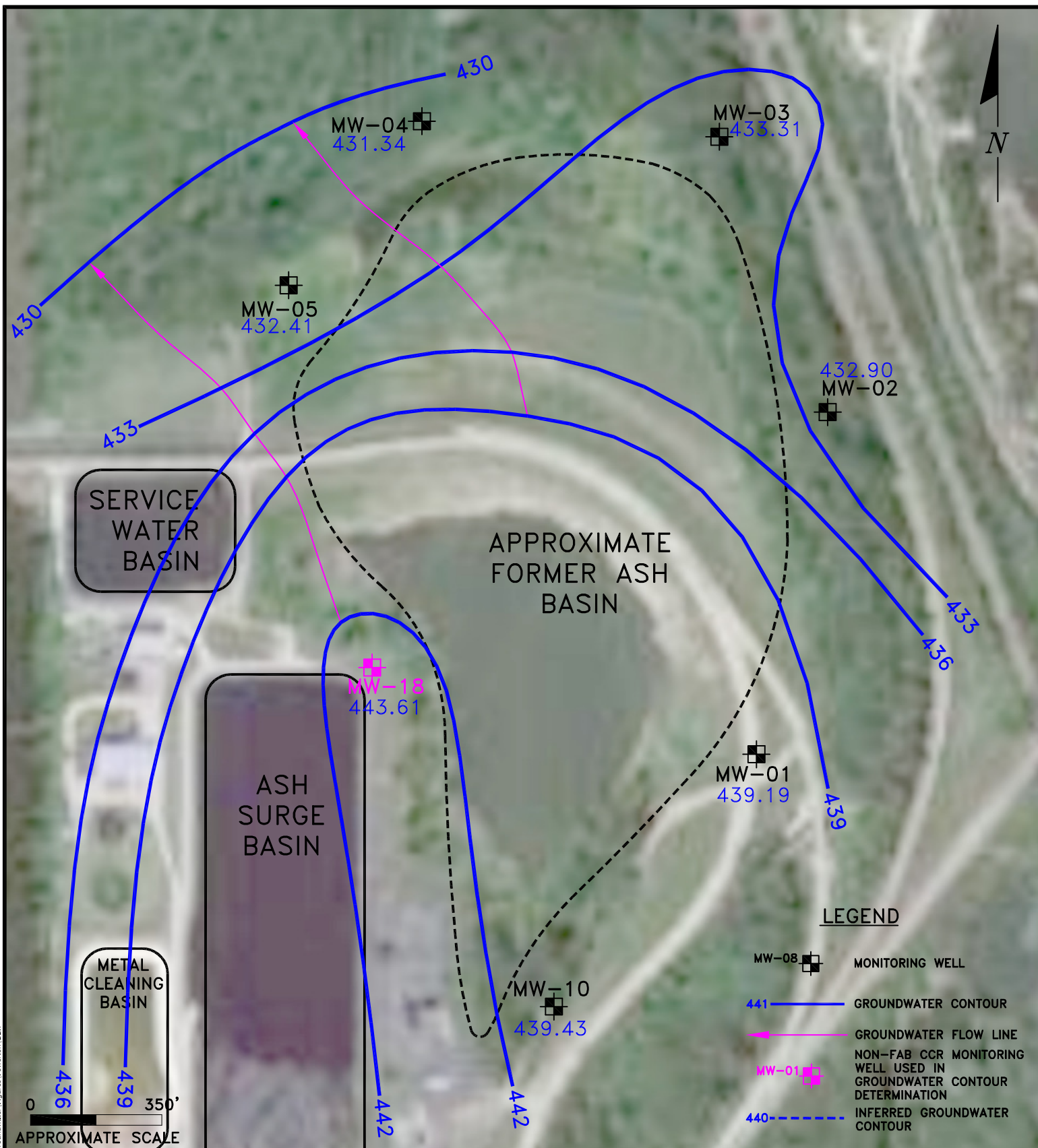
POWERTON STATION
PEKIN, ILLINOIS

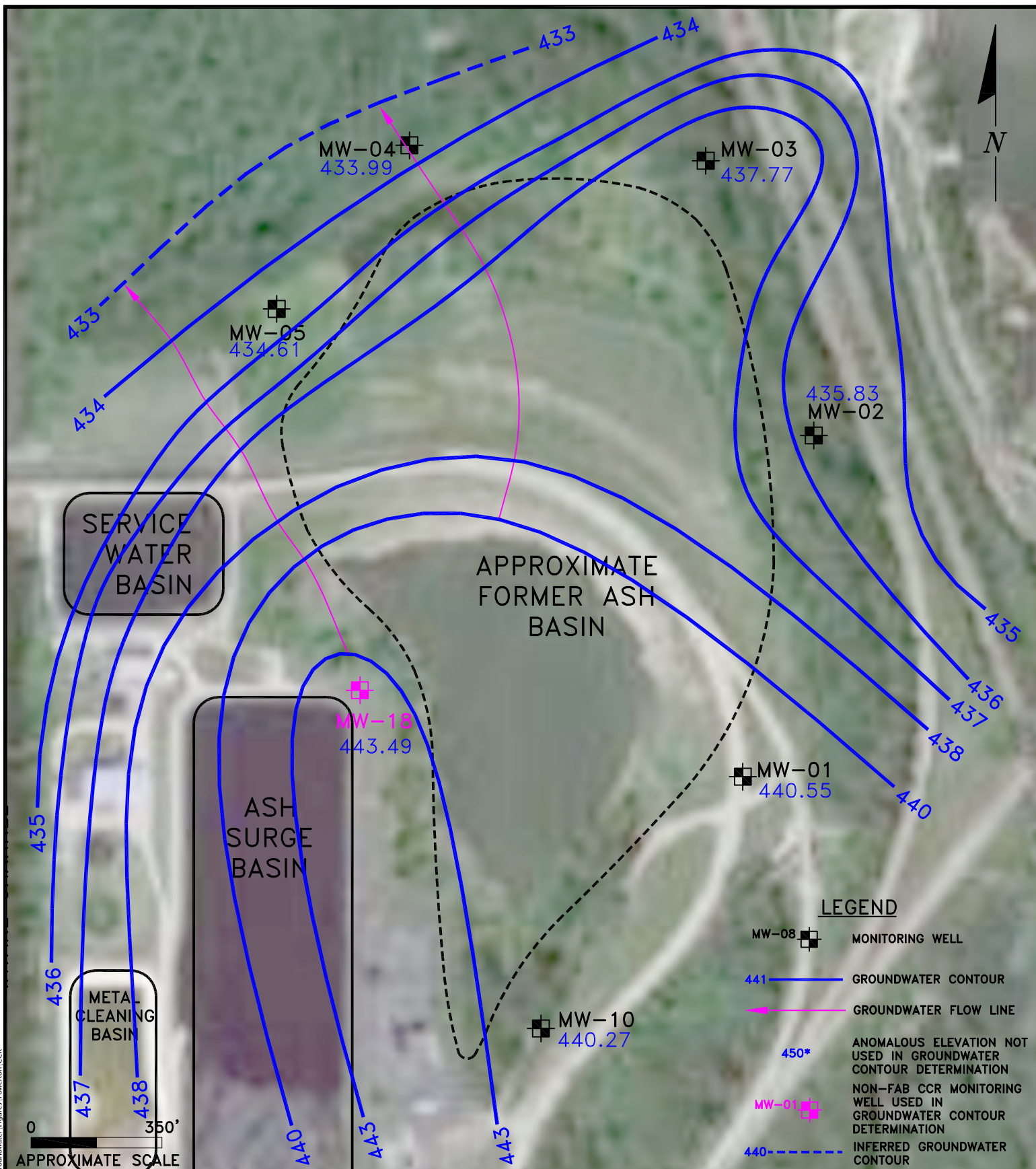
Scale: 1" = 350'

Date: January 07, 2019

KPRG Project No. 12313.1

FIGURE 2





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CCR GROUNDWATER CONTOUR MAP FOR FORMER ASH BASIN 10/2018

POWERTON STATION
PEKIN, ILLINOIS

Scale: 1" = 350'

Date: January 07, 2019

KPRG Project No. 12313.1

FIGURE 4

TABLES

Table 1. Groundwater Elevations for FAB Wells- Midwest Generation, LLC, Powerton Station, Pekin, IL

Well ID	Date	Top of Casing Elevation (ft above MSL)	Depth to Groundwater (ft below TOC)	Groundwater Elevation (ft above MSL)
MW-01	11/16/2015	465.24	26.04	439.20
	2/22/2016	465.24	21.90	443.34
	5/16/2016	465.24	21.83	443.41
	8/15/2016	465.24	23.89	441.35
	11/14/2016	465.24	23.38	441.86
	2/13/2017	465.24	21.71	443.53
	5/1/2017	465.24	18.87	446.37
	6/20/2017	465.24	21.54	443.70
	8/25/2017	465.24	24.70	440.54
	11/8/2017	465.24	24.92	440.32
	5/17/2018	465.24	22.66	442.58
	8/8/2018	465.24	26.05	439.19
	10/30/2018	465.24	24.69	440.55
MW-02	6/20/2017	462.60	22.04	440.56
	8/23/2017	462.60	28.42	434.18
	11/7/2017	462.60	26.08	436.52
	5/17/2018	462.60	23.26	439.34
	8/7/2018	462.60	29.70	432.90
	10/30/2018	462.60	26.77	435.83
MW-03	6/20/2017	462.48	22.31	440.17
	8/23/2017	462.48	28.18	434.30
	11/7/2017	462.48	25.38	437.10
	5/17/2018	462.48	22.62	439.86
	8/7/2018	462.48	29.17	433.31
	10/30/2018	462.48	24.71	437.77
MW-04	6/20/2017	460.57	22.15	438.42
	8/28/2017	460.57	28.49	432.08
	11/7/2017	460.57	25.62	434.95
	5/17/2018	460.57	24.13	436.44
	8/7/2018	460.57	29.23	431.34
	10/30/2018	460.57	26.58	433.99
MW-05	11/16/2015	458.58	26.39	432.19
	2/22/2016	458.58	21.12	437.46
	5/16/2016	458.58	16.58	442.00
	8/15/2016	458.58	23.59	434.99
	11/14/2016	458.58	22.72	435.86
	2/13/2017	458.58	19.13	439.45
	5/1/2017	458.58	13.09	445.49
	6/20/2017	458.58	19.43	439.15
	8/28/2017	458.58	25.38	433.20
	11/7/2017	458.58	22.91	435.67
	5/17/2018	458.58	21.54	437.04
	8/7/2018	458.58	26.17	432.41
	10/30/2018	458.58	23.97	434.61
MW-10	6/22/2017	457.31	13.46	443.85
	8/24/2017	457.31	16.39	440.92
	11/9/2017	457.31	16.86	440.45
	5/16/2018	457.31	14.88	442.43
	8/8/2018	457.31	17.88	439.43
	10/30/2018	457.31	17.04	440.27

MSL - Mean Sea Level
TOC - Top of Casing

Table 2. Groundwater Flow Direction and Estimated Seepage Velocity/Flow Rate - Powerton Generation Station - Former Ash Basin

DATE	Screened Unit	Groundwater Flow Direction	Kavg (ft/sec)*	Average Hydraulic Gradient (ft/ft)	Porosity (unitless)**	Estimated Seepage Velocity (ft/day)
6/20/2017	Sandy	Northeasterly	3.810E-03	0.0032	0.35	3.01
8/25/2017	Sandy	North-Northwest	3.810E-03	0.0127	0.35	11.94
11/8/2017	Sandy	North-Northwest	3.810E-03	0.0066	0.35	6.21
5/17/2018	Sandy	Northerly (Northwest - Northeast)	3.810E-03	0.0037	0.35	3.48
8/7/2018	Sandy	North-Northwest	3.810E-03	0.0059	0.35	5.55
10/30/2018	Sandy	North-Northwest	3.810E-03	0.0063	0.35	5.93

* Kavg - Average hydraulic conductivity for sandy unit (feet/second) from Hydrogeologic Assessment Report, Patrick Engineering, February 2011.
Average hydraulic conductivity for silt/clay unit (feet/second) from Groundwater, Freeze and Cherry, 1979.

** - Porosity estimates from Applied Hydrogeology, Fetter, 1980.

Table 3. FAB Appendix III Groundwater Analytical Results - Midwest Generation, LLC, Powerton Station, Pekin, IL.

Well	Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	Total Dissolved Solids
MW-01 up-gradient	11/16/2015	1.0	98	44	0.17	7.07	93	530
	2/25/2016	0.2	110	42	0.16	7.23	54	460
	5/20/2016	0.34	100	44	0.17	6.95	65	430
	8/17/2016	0.27	78	39	0.25	7.16	50	530
	11/16/2016	0.18	97	39	0.21	7.22	32	500
	2/14/2017	0.18	120	55	0.17	7.30	60	550
	5/3/2017	0.19	86	66	0.16	7.41	45	460
	6/21/2017	0.18	85	58	0.18	7.60	47	540
	8/25/2017	0.56	86	41	0.18	7.41	63	490
	11/8/2017	0.57	130	38	0.12	6.69	61	640
MW-10 [^] up-gradient	5/17/2018	0.15	88	50	0.12	6.7	48	540
	8/8/2018	0.14	86	48	0.13	6.80	43	430
	6/22/2017	0.5	100	48	0.190	6.81	54	1.0
	8/24/2017	0.3	93	51	0.180	7.14	57	480
	11/9/2017	0.36	98	48	0.180	6.78	64	500
	5/16/2018	0.42	93	44	0.190	7.64	80	530
MW-02 down-gradient	8/8/2018	0.39	99	58	0.190	7.1	60	550
	10/30/2018	0.34	110	49	0.220	7.65	49	510
	6/20/2017	0.33	90	55	0.19	7.01	47	500
	8/23/2017	V 1.30	86	49	0.19	7.40	61	440
	11/7/2017	3.70	98	46	0.17	7.10	88	550
	5/15/2018	0.22	80	45	0.23	7.71	54	500
MW-03 down-gradient	8/7/2018	1.50	89	54	0.15	7.09	51	530
	10/30/2018	0.23	86	43	0.17	7.83	34	480
	6/20/2017	0.4	76	54	0.29	7.26	49	480
	8/23/2017	0.40	79	52	0.28	7.44	52	430
	11/7/2017	0.31	79	62	0.26	7.04	61	460
	5/15/2018	0.35	87	66	0.27	7.53	77	520
MW-4 down gradient	8/7/2018	0.40	82	67	0.22	6.60	49	500
	10/30/2018	0.2	74	44	0.25	7.84	26	400
	6/20/2017	0.5	77	55	0.29	7.45	53	480
	8/28/2017	V 0.73	90	89	0.33	7.13	110	680
	11/7/2017	0.60	110	94	0.24	6.80	130	650
	5/15/2018	0.68	87	66	0.27	7.63	100	630
MW-05 down-gradient	8/7/2018	0.79	84	71	0.32	6.72	49	510
	10/30/2018	0.5	100	80	0.24	7.55	91	690
	5/17/2016	0.70	100	85	0.35	7.08	120	660
	8/16/2016	0.69	110	97	0.30	6.85	150	830
	11/15/2016	0.93	94	66	0.23	6.96	77	620
	2/14/2017	0.79	100	100	0.25	7.25	170	760
	5/1/2017	0.70	100	92	0.28	7.60	170	710
	6/20/2017	0.64	89	63	0.28	7.32	78	550
	8/28/2017	0.62	110	120	0.33	7.05	210	870
	11/7/2017	0.51	99	110	0.31	6.87	160	990
	5/15/2018	0.61	130	89	0.29	7.70	210	910
	8/7/2018	0.49	110	120	0.32	6.56	180	890

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

^ - Recently installed upgradient well. Insufficient rounds of sampling for statistical evaluation at this time.

Bold - Potential statistically significant increase.

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

H - Sample was prepped or analyzed beyond the specified holding time.

V- Serial dilution exceeds control limits.

Table 4. FAB Appendix IV Groundwater Analytical Results - Midwest Generation, LLC, Powerton Station, Pekin, IL

Well	Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium 226 + 228 Combined	Selenium	Thallium
MW-01 up-gradient	11/16/2015	< 0.003	< 0.001	0.057	^ < 0.001	< 0.0005	< 0.005	< 0.001	0.17	* < 0.0005	< 0.01	< 0.0002	< 0.0050	0.744	< 0.0025	* < 0.002
	2/25/2016	< 0.003	0.0025	0.053	< 0.001	< 0.0005	< 0.005	0.0014	0.16	0.0019	< 0.01	< 0.0002	< 0.005	< 0.722	0.0029	< 0.002
	5/20/2016	< 0.003	0.0081	0.062	< 0.001	< 0.0005	0.007	0.0053	0.17	0.011	< 0.01	< 0.0002	< 0.005	< 0.953	< 0.0025	< 0.002
	8/17/2016	< 0.003	0.0014	0.048	< 0.001	< 0.0005	< 0.005	< 0.001	0.25	0.0014	< 0.010	< 0.0002	0.0057	< 0.491	< 0.0025	< 0.002
	11/16/2016	< 0.003	0.0051	0.056	< 0.001	< 0.0005	< 0.005	0.0044	0.21	0.0082	< 0.01	< 0.0002	0.0059	< 0.618	< 0.0025	< 0.002
	2/14/2017	< 0.003	0.0041	0.056	< 0.001	< 0.0005	< 0.005	0.0045	0.17	0.0076	< 0.01	< 0.0002	0.0056	< 0.837	< 0.0025	< 0.002
	5/3/2017	< 0.003	0.0015	0.045	< 0.001	< 0.0005	< 0.005	0.0033	0.16	0.0067	< 0.01	< 0.0002	< 0.005	0.574	< 0.0025	< 0.002
	6/21/2017	< 0.003	< 0.001	0.04	< 0.001	< 0.0005	< 0.005	< 0.001	0.18	< 0.0005	< 0.01	< 0.0002	0.0061	< 0.418	< 0.0025	< 0.002
	8/25/2017	< 0.003	< 0.001	0.049	< 0.001	< 0.0005	< 0.005	< 0.001	0.18	< 0.0005	< 0.01	< 0.0002	0.0059	0.775	< 0.0025	< 0.002
MW-10 up- gradient	11/8/2017	< 0.003	< 0.001	0.083	< 0.001	< 0.0005	< 0.005	< 0.001	0.12	< 0.0005	< 0.01	< 0.0002	< 0.005	0.343	< 0.0025	< 0.002
	5/17/2018	< 0.003	< 0.001	0.045	< 0.001	< 0.0005	< 0.005	< 0.001	0.12	0.00068	< 0.01	< 0.0002	< 0.005	< 0.396	< 0.0025	< 0.002
	8/8/2018	< 0.003	< 0.001	0.051	<^ 0.001	< 0.0005	< 0.005	< 0.001	0.13	< 0.0005	< 0.01	< 0.0002	< 0.005	0.579	< 0.0025	< 0.002
	6/22/2017	< 0.003	0.002	0.250	< 0.001	< 0.001	< 0.005	0.008	0.190	0.003	< 0.010	< 0.0002	< 0.005	0.408	0.0042	< 0.002
	8/24/2017	< 0.003	0.002	0.220	< 0.001	< 0.001	< 0.005	0.007	0.180	0.003	< 0.010	< 0.0002	< 0.005	0.564	0.0044	< 0.002
MW-02 down-gradient	11/9/2017	< 0.003	< 0.001	0.220	< 0.001	< 0.001	< 0.005	0.004	0.180	< 0.001	< 0.010	< 0.0002	< 0.005	1.020	0.0034	< 0.002
	5/16/2018	< 0.003	0.001	0.220	< 0.001	< 0.001	< 0.005	0.021	0.190	0.001	< 0.010	< 0.0002	< 0.005	1.550	0.0050	< 0.002
	8/8/2018	< 0.003	0.001	0.220	<^ 0.001	< 0.001	< 0.005	0.014	0.190	0.001	< 0.010	< 0.0002	< 0.005	< 0.551	0.0062	< 0.002
	10/30/2018	< 0.003	0.011	0.410	< 0.001	0.001	0.024	0.047	0.220	0.023	0.017	< 0.0002	< 0.005	0.754	0.0046	< 0.002
	6/20/2017	< 0.003	0.001	0.075	< 0.001	< 0.0005	< 0.005	< 0.001	0.190	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.341	< 0.0025	< 0.002
MW-03 down-gradient	8/23/2017	< 0.003	< 0.001	0.062	< 0.001	< 0.0005	< 0.005	< 0.001	0.190	< 0.0005	< 0.01	< 0.0002	< 0.005	0.833	< 0.0025	< 0.002
	11/7/2017	< 0.003	0.001	0.091	< 0.001	< 0.0005	< 0.005	< 0.001	0.170	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.309	0.0027	< 0.002
	5/15/2018	< 0.003	0.001	0.065	< 0.001	< 0.0005	< 0.005	< 0.001	0.230	< 0.0005	< 0.01	0.0004	< 0.005	< 0.408	< 0.0025	< 0.002
	8/7/2018	< 0.003	0.002	0.067	<^ 0.001	< 0.0005	< 0.005	< 0.001	0.150	< 0.0005	< 0.01	< 0.0002	< 0.005	0.622	< 0.0025	< 0.002
	10/30/2018	< 0.003	0.002	0.067	< 0.001	< 0.0005	< 0.005	< 0.001	0.170	< 0.0005	< 0.01	< 0.0002	< 0.005	0.346	< 0.0025	< 0.002
MW-04 down-gradient	6/20/2017	< 0.003	0.001	0.066	< 0.001	< 0.0005	< 0.005	< 0.001	0.290	< 0.0005	< 0.010	< 0.0002	< 0.005	< 0.325	< 0.0025	< 0.002
	8/23/2017	< 0.003	0.001	0.066	< 0.001	< 0.0005	< 0.005	< 0.001	0.280	< 0.0005	< 0.010	< 0.0002	< 0.005	1.200	< 0.0025	< 0.002
	11/7/2017	< 0.003	0.001	0.068	< 0.001	< 0.0005	< 0.005	< 0.001	0.260	< 0.0005	< 0.010	< 0.0002	< 0.005	0.588	< 0.0025	< 0.002
	5/15/2018	< 0.003	0.001	0.059	< 0.001	< 0.0005	< 0.005	< 0.001	0.230	< 0.0005	< 0.010	< 0.0002	< 0.005	< 0.489	< 0.0025	< 0.002
	8/7/2018	< 0.003	0.002	0.067	<^ 0.001	< 0.0005	< 0.005	< 0.001	0.220	< 0.0005	< 0.010	< 0.0002	< 0.005	< 0.341	< 0.0025	< 0.002
MW-05 down-gradient	10/30/2018	< 0.003	0.001	0.056	< 0.001	< 0.0005	< 0.005	< 0.001	0.250	< 0.0005	< 0.010	< 0.0002	< 0.005	< 0.354	< 0.0025	< 0.002
	6/20/2017	< 0.003	< 0.001	0.0025	< 0.001	< 0.0005	< 0.005	< 0.001	0.290	< 0.0005	< 0.010	< 0.0002	< 0.005	< 0.343	< 0.0025	< 0.002
	8/28/2017	< 0.003	< 0.001	0.0280	< 0.001	< 0.0005	< 0.005	< 0.001	0.330	< 0.0005	< 0.010	< 0.0002	0.013	< 0.246	< 0.0025	< 0.002
	11/7/2017	< 0.003	< 0.001	0.0510	< 0.001	< 0.0005	< 0.005	< 0.001	0.240	< 0.0005	< 0.010	< 0.0002	< 0.005	< 0.332	0.0092	< 0.002
	5/15/2018	< 0.003	< 0.001	0.0370	< 0.001	< 0.0005	< 0.005	< 0.001	0.270	< 0.0005	< 0.010	< 0.0002	< 0.005	0.661	< 0.0025	< 0.002
MW-01 up-gradient	8/7/2018	< 0.003	0.001	0.0310	<^ 0.001	< 0.0005	< 0.005	< 0.001	0.320	< 0.0005	< 0.010	< 0.0002	0.006	< 0.334	< 0.0025	< 0.002
	10/30/2018	< 0.003	< 0.001	0.0490	< 0.001	< 0.0005	< 0.005	< 0.001	0.240	< 0.0005	< 0.010	< 0.0002	< 0.005	0.330	< 0.0025	< 0.002
	5/17/2016	< 0.003	< 0.001	0.051	< 0.001	< 0.0005	< 0.005	< 0.001	0.35	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.373	< 0.0025	< 0.002
	8/16/2016	< 0.003	< 0.001	0.06	< 0.001	< 0.0005	< 0.005	< 0.001	0.30	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.452	< 0.0025	< 0.002
	11/15/2016	< 0.003	< 0.001	0.051	< 0.001	< 0.0005	< 0.005	< 0.001	0.23	< 0.0005	< 0.01	< 0.0002	< 0.005	0.449	< 0.0025	< 0.002
	2/14/2017	< 0.003	< 0.001	0.062	< 0.001	< 0.0005	< 0.005	< 0.001	0.25	0.00091	< 0.01	< 0.0002	< 0.005	< 0.359	< 0.0025	< 0.002
	5/1/2017	< 0.003	< 0.001	0.059	< 0.001	< 0.0005	< 0.005	< 0.001	0.28	< 0.0005	< 0.01	< 0.0002	0.0066	< 0.439	< 0.0025	< 0.002
	6/20/2017	< 0.003	< 0.001	0.048	< 0.001	< 0.0005	< 0.005	< 0.001	0.28	< 0.0005	< 0.01	< 0.0002	0.0061	< 0.365	< 0.0025	< 0.002
MW-02 down-gradient	8/28/2017	< 0.003	< 0.001	0.064	< 0.001	< 0.0005	< 0.005	< 0.001	0.33	< 0.0005	< 0.01	< 0.0002	0.0085	0.381	< 0.0025	< 0.002
	11/7/2017	< 0.003	< 0.001	0.058	< 0.001	< 0.0005	< 0.005	< 0.001	0.31	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.341	< 0.0025	< 0.002
	5/15/2018	< 0.003	< 0.001	0.062	< 0.001	< 0.0005	< 0.005	< 0.001	0.29	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.390	< 0.0025	< 0.002
	8/7/2018	< 0.003	< 0.001	0.054	<^ 0.001	< 0.0005	< 0.005	< 0.001	0.32	< 0.0005	< 0.01	< 0.0002	0.0069	0.523	< 0.0025	< 0.002
	6/20/2017	< 0.003	< 0.001	0.048	< 0.001	< 0.0005	< 0.005	< 0.001	0.28	< 0.0005	< 0.01	< 0.0002	0.0061	< 0.365	< 0.0025	< 0.002
	8/28/2017	< 0.003	< 0.001	0.064	< 0.001	< 0.0005	< 0.005	< 0.001	0.33	< 0.0005	< 0.01	< 0.0002	0.0085	0.381	< 0.0025	< 0.002
	11/7/2017	< 0.003	< 0.001	0.058	< 0.001	< 0.0005	< 0.005	< 0.001	0.31	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.341	< 0.0025	< 0.002
	5/15/2018	< 0.003	< 0.001	0.062	< 0.001	< 0.0005	< 0.005	< 0.001	0.29	< 0.0005	< 0.01	< 0.0002	< 0.005	< 0.390	< 0.0025	< 0.002
	8/7/2018	< 0.003	< 0.001	0.054	<^ 0.001	< 0.0005	< 0.005	< 0.001	0.32	< 0.0005	< 0.01	< 0.0002	0.0069	0.523	< 0.0025	< 0.002

Notes:
All statistics use the detection limit for non-detect results.
All units are in mg/l except Radium is in pCi/L as noted.
State Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I: Potable Resource Groundwater.
Federal Maximum Contaminant Levels (MCLs) obtained from Code of Federal Regulations (CFR) Title 40, Chapter I, Subchapter D, Part 141.

F1 - MS and/or MSD Recovery outside of limits.
NS - No Standard
* - LCS or LCSD is outside acceptance limits.
^ - Denotes instrument related QC exceeds the control limits

APPENDIX A
Analytical Data Packages

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-145716-1

Client Project/Site: Powerton CCR

For:

KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 2B

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

6/4/2018 4:41:01 PM

Eric Lang, Manager of Project Management

(708)534-5200

eric.lang@testamericainc.com

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: Powerton CCR

TestAmerica Job ID: 500-145716-1

Job ID: 500-145716-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145716-1

Comments

No additional comments.

Receipt

The samples were received on 5/18/2018 5:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 2.1° C, 2.8° C, 3.1° C, 3.9° C and 4.7° C.

Metals

Method(s) 6020A: The low level continuing calibration verification (CCVL) at line 58, associated with batch 500-433393 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 internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-433393. 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.

Detection Summary

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-01

Lab Sample ID: 500-145716-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.045		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.15		0.050		mg/L	1		6020A	Total Recoverable
Calcium	88		0.20		mg/L	1		6020A	Total Recoverable
Lead	0.00068		0.00050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	540		10		mg/L	1		SM 2540C	Total/NA
Chloride	50		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.12		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	48		20		mg/L	4		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-02

Lab Sample ID: 500-145716-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0013		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.065		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.22		0.050		mg/L	1		6020A	Total Recoverable
Calcium	80		0.20		mg/L	1		6020A	Total Recoverable
Mercury	0.00040		0.00020		mg/L	1		7470A	Total/NA
Total Dissolved Solids	500		10		mg/L	1		SM 2540C	Total/NA
Chloride	45		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	54		20		mg/L	4		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-03

Lab Sample ID: 500-145716-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.059		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.35		0.050		mg/L	1		6020A	Total Recoverable
Calcium	77		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	520		10		mg/L	1		SM 2540C	Total/NA
Chloride	65		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	77		20		mg/L	4		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-04

Lab Sample ID: 500-145716-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.037		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.68		0.050		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-04 (Continued)

Lab Sample ID: 500-145716-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	87		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	630		10		mg/L	1		SM 2540C	Total/NA
Chloride	66		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.27		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	100		25		mg/L	5		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-05

Lab Sample ID: 500-145716-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.062		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.61		0.050		mg/L	1		6020A	Total Recoverable
Calcium	130		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	910		10		mg/L	1		SM 2540C	Total/NA
Chloride	89		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.29		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	210		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-08

Lab Sample ID: 500-145716-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0030		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.072		0.0025		mg/L	1		6020A	Total Recoverable
Boron	1.2		0.25		mg/L	5		6020A	Total Recoverable
Calcium	130		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.024		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1000		10		mg/L	1		SM 2540C	Total/NA
Chloride	200		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.37		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	170		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-09

Lab Sample ID: 500-145716-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.038		0.0025		mg/L	1		6020A	Total Recoverable
Boron	4.1		1.0		mg/L	20		6020A	Total Recoverable
Calcium	89		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.031		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.0060		0.0025		mg/L	1		6020A	Total Recoverable
Mercury	0.00029		0.00020		mg/L	1		7470A	Total/NA
Total Dissolved Solids	550		10		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-09 (Continued)

Lab Sample ID: 500-145716-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	36		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	180		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-10

Lab Sample ID: 500-145716-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0010		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.22		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.42		0.050		mg/L	1		6020A	Total Recoverable
Calcium	93		0.20		mg/L	1		6020A	Total Recoverable
Cobalt	0.021		0.0010		mg/L	1		6020A	Total Recoverable
Lead	0.0010		0.00050		mg/L	1		6020A	Total Recoverable
Selenium	0.0050		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	530		10		mg/L	1		SM 2540C	Total/NA
Chloride	44		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	80		20		mg/L	4		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-11

Lab Sample ID: 500-145716-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.089		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.47		0.0025		mg/L	1		6020A	Total Recoverable
Boron	2.0		0.50		mg/L	10		6020A	Total Recoverable
Calcium	140		0.20		mg/L	1		6020A	Total Recoverable
Cobalt	0.0041		0.0010		mg/L	1		6020A	Total Recoverable
Molybdenum	0.014		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1000		10		mg/L	1		SM 2540C	Total/NA
Chloride	88		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.61		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	270		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-12

Lab Sample ID: 500-145716-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.012		0.010		mg/L	1		6010C	Total Recoverable
Arsenic	0.086		0.0010		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-12 (Continued)

Lab Sample ID: 500-145716-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	0.10		0.0025		mg/L		1		6020A	Total Recoverable
Boron	0.46		0.050		mg/L		1		6020A	Total Recoverable
Cadmium	0.00052		0.00050		mg/L		1		6020A	Total Recoverable
Calcium	100		0.20		mg/L		1		6020A	Total Recoverable
Lead	0.00067		0.00050		mg/L		1		6020A	Total Recoverable
Molybdenum	0.021		0.0050		mg/L		1		6020A	Total Recoverable
Total Dissolved Solids	1500		10		mg/L		1		SM 2540C	Total/NA
Chloride	180		10		mg/L		5		SM 4500 Cl- E	Total/NA
Fluoride	0.47		0.10		mg/L		1		SM 4500 F C	Total/NA
Sulfate	720		130		mg/L		25		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-15

Lab Sample ID: 500-145716-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lithium	0.029		0.010		mg/L		1		6010C	Total Recoverable
Arsenic	0.0081		0.0010		mg/L		1		6020A	Total Recoverable
Barium	0.050		0.0025		mg/L		1		6020A	Total Recoverable
Boron	2.3		0.50		mg/L		10		6020A	Total Recoverable
Calcium	200		0.20		mg/L		1		6020A	Total Recoverable
Molybdenum	0.030		0.0050		mg/L		1		6020A	Total Recoverable
Selenium	0.077		0.0025		mg/L		1		6020A	Total Recoverable
Total Dissolved Solids	1800		10		mg/L		1		SM 2540C	Total/NA
Chloride	160		10		mg/L		5		SM 4500 Cl- E	Total/NA
Fluoride	0.50		0.10		mg/L		1		SM 4500 F C	Total/NA
Sulfate	680		130		mg/L		25		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-17

Lab Sample ID: 500-145716-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lithium	0.015		0.010		mg/L		1		6010C	Total Recoverable
Arsenic	0.42		0.0010		mg/L		1		6020A	Total Recoverable
Barium	0.17		0.0025		mg/L		1		6020A	Total Recoverable
Boron	1.6		0.50		mg/L		10		6020A	Total Recoverable
Cadmium	0.0020		0.00050		mg/L		1		6020A	Total Recoverable
Calcium	170		0.20		mg/L		1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-17 (Continued)

Lab Sample ID: 500-145716-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	0.0029		0.0010		mg/L	1		6020A	Total Recoverable
Lead	0.0021		0.00050		mg/L	1		6020A	Total Recoverable
Molybdenum	0.13		0.0050		mg/L	1		6020A	Total Recoverable
Thallium	0.0068		0.0020		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1700		10		mg/L	1		SM 2540C	Total/NA
Chloride	220		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.60		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	800		130		mg/L	25		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-18

Lab Sample ID: 500-145716-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.013		0.010		mg/L	1		6010C	Total Recoverable
Barium	0.13		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.57		0.050		mg/L	1		6020A	Total Recoverable
Calcium	130		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.0052		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1200		10		mg/L	1		SM 2540C	Total/NA
Chloride	180		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.59		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	440		100		mg/L	20		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-19

Lab Sample ID: 500-145716-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.079		0.0025		mg/L	1		6020A	Total Recoverable
Boron	4.1		1.0		mg/L	20		6020A	Total Recoverable
Calcium	96		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.043		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.0044		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	820		10		mg/L	1		SM 2540C	Total/NA
Chloride	35		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.16		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	180		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 500-145716-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.077		0.0025		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: Duplicate (Continued)

Lab Sample ID: 500-145716-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	3.9		1.0		mg/L	20		6020A	Total Recoverable
Calcium	95		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.042		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.0040		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	850		10		mg/L	1		SM 2540C	Total/NA
Chloride	36		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		50		mg/L	10		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

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

TestAmerica Job ID: 500-145716-1

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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI
7470A	Preparation, Mercury	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 = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

TestAmerica Job ID: 500-145716-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145716-1	MW-01	Water	05/17/18 15:15	05/18/18 17:20
500-145716-2	MW-02	Water	05/15/18 09:05	05/18/18 17:20
500-145716-3	MW-03	Water	05/15/18 11:00	05/18/18 17:20
500-145716-4	MW-04	Water	05/15/18 12:11	05/18/18 17:20
500-145716-5	MW-05	Water	05/15/18 13:31	05/18/18 17:20
500-145716-6	MW-08	Water	05/17/18 13:29	05/18/18 17:20
500-145716-7	MW-09	Water	05/16/18 10:19	05/18/18 17:20
500-145716-8	MW-10	Water	05/16/18 11:41	05/18/18 17:20
500-145716-9	MW-11	Water	05/16/18 13:01	05/18/18 17:20
500-145716-10	MW-12	Water	05/16/18 14:41	05/18/18 17:20
500-145716-11	MW-15	Water	05/17/18 11:58	05/18/18 17:20
500-145716-12	MW-17	Water	05/14/18 14:51	05/18/18 17:20
500-145716-13	MW-18	Water	05/14/18 16:05	05/18/18 17:20
500-145716-14	MW-19	Water	05/14/18 17:35	05/18/18 17:20
500-145716-15	Duplicate	Water	05/14/18 00:00	05/18/18 17:20

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-01

Date Collected: 05/17/18 15:15

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-1

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		05/19/18 11:03	05/22/18 19:37	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		05/19/18 11:03	05/21/18 22:46	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 22:46	1
Barium	0.045		0.0025		mg/L		05/19/18 11:03	05/21/18 22:46	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 22:46	1
Boron	0.15		0.050		mg/L		05/19/18 11:03	05/22/18 17:05	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 22:46	1
Calcium	88		0.20		mg/L		05/19/18 11:03	05/21/18 22:46	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 22:46	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 22:46	1
Lead	0.00068		0.00050		mg/L		05/19/18 11:03	05/22/18 17:05	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 22:46	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 22:46	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 22:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	540		10		mg/L			05/21/18 04:13	1
Chloride	50		2.0		mg/L			05/28/18 18:53	1
Fluoride	0.12		0.10		mg/L			05/26/18 14:30	1
Sulfate	48		20		mg/L			05/30/18 12:43	4

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-02

Date Collected: 05/15/18 09:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-2

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		05/19/18 11:03	05/22/18 19:56	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		05/19/18 11:03	05/21/18 23:12	1
Arsenic	0.0013		0.0010		mg/L		05/19/18 11:03	05/21/18 23:12	1
Barium	0.065		0.0025		mg/L		05/19/18 11:03	05/21/18 23:12	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:12	1
Boron	0.22		0.050		mg/L		05/19/18 11:03	05/22/18 17:24	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:12	1
Calcium	80		0.20		mg/L		05/19/18 11:03	05/21/18 23:12	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:12	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:12	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:12	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:12	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:12	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:12	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00040		0.00020		mg/L		05/25/18 12:35	05/30/18 16:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	500		10		mg/L			05/21/18 04:20	1
Chloride	45		2.0		mg/L			05/28/18 18:54	1
Fluoride	0.23		0.10		mg/L			05/26/18 14:38	1
Sulfate	54		20		mg/L			05/30/18 12:44	4

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-03

Date Collected: 05/15/18 11:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-3

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		05/19/18 11:03	05/22/18 20:00	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		05/19/18 11:03	05/21/18 23:16	1
Arsenic	0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:16	1
Barium	0.059		0.0025		mg/L		05/19/18 11:03	05/21/18 23:16	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:16	1
Boron	0.35		0.050		mg/L		05/19/18 11:03	05/22/18 17:28	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:16	1
Calcium	77		0.20		mg/L		05/19/18 11:03	05/21/18 23:16	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:16	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:16	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:16	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:16	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:16	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	520		10		mg/L			05/21/18 04:26	1
Chloride	65		2.0		mg/L			05/28/18 18:55	1
Fluoride	0.23		0.10		mg/L			05/26/18 14:41	1
Sulfate	77		20		mg/L			06/04/18 12:51	4

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-04

Date Collected: 05/15/18 12:11

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-4

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		05/19/18 11:03	05/22/18 20:04	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		05/19/18 11:03	05/21/18 23:20	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:20	1
Barium	0.037		0.0025		mg/L		05/19/18 11:03	05/21/18 23:20	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:20	1
Boron	0.68		0.050		mg/L		05/19/18 11:03	05/22/18 17:32	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:20	1
Calcium	87		0.20		mg/L		05/19/18 11:03	05/21/18 23:20	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:20	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:20	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:20	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:20	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:20	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	630		10		mg/L			05/21/18 04:28	1
Chloride	66		2.0		mg/L			05/28/18 18:56	1
Fluoride	0.27		0.10		mg/L			05/26/18 14:45	1
Sulfate	100		25		mg/L			06/04/18 12:52	5

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-05

Date Collected: 05/15/18 13:31

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-5

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		05/19/18 11:03	05/22/18 20:08	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		05/19/18 11:03	05/21/18 23:24	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:24	1
Barium	0.062		0.0025		mg/L		05/19/18 11:03	05/21/18 23:24	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:24	1
Boron	0.61		0.050		mg/L		05/19/18 11:03	05/22/18 17:44	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:24	1
Calcium	130		0.20		mg/L		05/19/18 11:03	05/21/18 23:24	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:24	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:24	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:24	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:24	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:24	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	910		10		mg/L			05/21/18 04:31	1
Chloride	89		10		mg/L			05/28/18 18:57	5
Fluoride	0.29		0.10		mg/L			05/26/18 14:48	1
Sulfate	210		50		mg/L			06/04/18 12:55	10

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-08

Date Collected: 05/17/18 13:29

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-6

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		05/19/18 11:03	05/22/18 20:12	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		05/19/18 11:03	05/21/18 23:27	1
Arsenic	0.0030		0.0010		mg/L		05/19/18 11:03	05/21/18 23:27	1
Barium	0.072		0.0025		mg/L		05/19/18 11:03	05/21/18 23:27	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:27	1
Boron	1.2		0.25		mg/L		05/19/18 11:03	05/22/18 17:47	5
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:27	1
Calcium	130		0.20		mg/L		05/19/18 11:03	05/21/18 23:27	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:27	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:27	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:27	1
Molybdenum	0.024		0.0050		mg/L		05/19/18 11:03	05/21/18 23:27	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:27	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			05/21/18 04:33	1
Chloride	200		10		mg/L			05/28/18 18:58	5
Fluoride	0.37		0.10		mg/L			05/26/18 14:51	1
Sulfate	170		50		mg/L			06/04/18 12:56	10

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-09

Date Collected: 05/16/18 10:19

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-7

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		05/19/18 11:03	05/22/18 20:24	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		05/19/18 11:03	05/21/18 23:31	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:31	1
Barium	0.038		0.0025		mg/L		05/19/18 11:03	05/21/18 23:31	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:31	1
Boron	4.1		1.0		mg/L		05/19/18 11:03	05/22/18 17:51	20
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:31	1
Calcium	89		0.20		mg/L		05/19/18 11:03	05/21/18 23:31	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:31	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:31	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:31	1
Molybdenum	0.031		0.0050		mg/L		05/19/18 11:03	05/21/18 23:31	1
Selenium	0.0060		0.0025		mg/L		05/19/18 11:03	05/21/18 23:31	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:31	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00029		0.00020		mg/L		05/25/18 12:35	05/30/18 16:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	550		10		mg/L			05/21/18 04:36	1
Chloride	36		2.0		mg/L			05/28/18 19:01	1
Fluoride	0.15		0.10		mg/L			05/26/18 15:04	1
Sulfate	180		50		mg/L			06/04/18 12:57	10

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-10

Date Collected: 05/16/18 11:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-8

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		05/19/18 11:03	05/22/18 20:28	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		05/19/18 11:03	05/21/18 23:35	1
Arsenic	0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:35	1
Barium	0.22		0.0025		mg/L		05/19/18 11:03	05/21/18 23:35	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:35	1
Boron	0.42		0.050		mg/L		05/19/18 11:03	05/22/18 17:55	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:35	1
Calcium	93		0.20		mg/L		05/19/18 11:03	05/21/18 23:35	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:35	1
Cobalt	0.021		0.0010		mg/L		05/19/18 11:03	05/21/18 23:35	1
Lead	0.0010		0.00050		mg/L		05/19/18 11:03	05/21/18 23:35	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:35	1
Selenium	0.0050		0.0025		mg/L		05/19/18 11:03	05/21/18 23:35	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:35	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	530		10		mg/L			05/21/18 04:39	1
Chloride	44		2.0		mg/L			05/28/18 19:02	1
Fluoride	0.19		0.10		mg/L			05/26/18 15:07	1
Sulfate	80		20		mg/L			06/04/18 12:58	4

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-11

Date Collected: 05/16/18 13:01

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-9

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		05/19/18 11:03	05/22/18 20:32	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		05/19/18 11:03	05/21/18 23:39	1
Arsenic	0.089		0.0010		mg/L		05/19/18 11:03	05/21/18 23:39	1
Barium	0.47		0.0025		mg/L		05/19/18 11:03	05/21/18 23:39	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:39	1
Boron	2.0		0.50		mg/L		05/19/18 11:03	05/22/18 17:59	10
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:39	1
Calcium	140		0.20		mg/L		05/19/18 11:03	05/21/18 23:39	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:39	1
Cobalt	0.0041		0.0010		mg/L		05/19/18 11:03	05/21/18 23:39	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:39	1
Molybdenum	0.014		0.0050		mg/L		05/19/18 11:03	05/21/18 23:39	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:39	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			05/21/18 04:41	1
Chloride	88		10		mg/L			05/28/18 19:03	5
Fluoride	0.61		0.10		mg/L			05/26/18 15:10	1
Sulfate	270		50		mg/L			06/04/18 13:01	10

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-12

Date Collected: 05/16/18 14:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-10

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		05/19/18 11:03	05/22/18 20:36	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		05/19/18 11:03	05/21/18 23:43	1
Arsenic	0.086		0.0010		mg/L		05/19/18 11:03	05/21/18 23:43	1
Barium	0.10		0.0025		mg/L		05/19/18 11:03	05/21/18 23:43	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:43	1
Boron	0.46		0.050		mg/L		05/19/18 11:03	05/22/18 18:03	1
Cadmium	0.00052		0.00050		mg/L		05/19/18 11:03	05/21/18 23:43	1
Calcium	100		0.20		mg/L		05/19/18 11:03	05/21/18 23:43	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:43	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:43	1
Lead	0.00067		0.00050		mg/L		05/19/18 11:03	05/21/18 23:43	1
Molybdenum	0.021		0.0050		mg/L		05/19/18 11:03	05/21/18 23:43	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:43	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:43	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1500		10		mg/L			05/21/18 04:44	1
Chloride	180		10		mg/L			05/28/18 19:21	5
Fluoride	0.47		0.10		mg/L			05/26/18 15:13	1
Sulfate	720		130		mg/L			06/04/18 13:02	25

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-15

Date Collected: 05/17/18 11:58

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-11

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		05/19/18 11:03	05/22/18 20:40	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		05/19/18 11:03	05/21/18 23:54	1
Arsenic	0.0081		0.0010		mg/L		05/19/18 11:03	05/21/18 23:54	1
Barium	0.050		0.0025		mg/L		05/19/18 11:03	05/21/18 23:54	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:54	1
Boron	2.3		0.50		mg/L		05/19/18 11:03	05/22/18 18:07	10
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:54	1
Calcium	200		0.20		mg/L		05/19/18 11:03	05/21/18 23:54	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:54	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:54	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 23:54	1
Molybdenum	0.030		0.0050		mg/L		05/19/18 11:03	05/21/18 23:54	1
Selenium	0.077		0.0025		mg/L		05/19/18 11:03	05/21/18 23:54	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 23:54	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:37	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1800		10		mg/L			05/21/18 04:46	1
Chloride	160		10		mg/L			05/28/18 19:04	5
Fluoride	0.50		0.10		mg/L			05/26/18 15:16	1
Sulfate	680		130		mg/L			06/04/18 13:03	25

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-17

Date Collected: 05/14/18 14:51

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-12

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		05/19/18 11:03	05/22/18 20:44	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		05/19/18 11:03	05/21/18 23:58	1
Arsenic	0.42		0.0010		mg/L		05/19/18 11:03	05/21/18 23:58	1
Barium	0.17		0.0025		mg/L		05/19/18 11:03	05/21/18 23:58	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 23:58	1
Boron	1.6		0.50		mg/L		05/19/18 11:03	05/22/18 18:11	10
Cadmium	0.0020		0.00050		mg/L		05/19/18 11:03	05/21/18 23:58	1
Calcium	170		0.20		mg/L		05/19/18 11:03	05/21/18 23:58	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 23:58	1
Cobalt	0.0029		0.0010		mg/L		05/19/18 11:03	05/21/18 23:58	1
Lead	0.0021		0.00050		mg/L		05/19/18 11:03	05/21/18 23:58	1
Molybdenum	0.13		0.0050		mg/L		05/19/18 11:03	05/21/18 23:58	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 23:58	1
Thallium	0.0068		0.0020		mg/L		05/19/18 11:03	05/21/18 23:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1700		10		mg/L			05/21/18 04:49	1
Chloride	220		10		mg/L			05/28/18 19:04	5
Fluoride	0.60		0.10		mg/L			05/26/18 15:19	1
Sulfate	800		130		mg/L			06/04/18 13:04	25

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-18

Date Collected: 05/14/18 16:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-13

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		05/19/18 11:03	05/22/18 20:48	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		05/19/18 11:03	05/22/18 00:01	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:01	1
Barium	0.13		0.0025		mg/L		05/19/18 11:03	05/22/18 00:01	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:01	1
Boron	0.57		0.050		mg/L		05/19/18 11:03	05/22/18 18:15	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/22/18 00:01	1
Calcium	130		0.20		mg/L		05/19/18 11:03	05/22/18 00:01	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/22/18 00:01	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:01	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/22/18 00:01	1
Molybdenum	0.0052		0.0050		mg/L		05/19/18 11:03	05/22/18 00:01	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/22/18 00:01	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/22/18 00:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10		mg/L			05/21/18 04:51	1
Chloride	180		10		mg/L			05/28/18 19:05	5
Fluoride	0.59		0.10		mg/L			05/26/18 15:22	1
Sulfate	440		100		mg/L			06/04/18 13:05	20

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-19

Date Collected: 05/14/18 17:35

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-14

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		05/19/18 11:03	05/22/18 20:52	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		05/19/18 11:03	05/22/18 00:05	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:05	1
Barium	0.079		0.0025		mg/L		05/19/18 11:03	05/22/18 00:05	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:05	1
Boron	4.1		1.0		mg/L		05/19/18 11:03	05/22/18 18:18	20
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/22/18 00:05	1
Calcium	96		0.20		mg/L		05/19/18 11:03	05/22/18 00:05	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/22/18 00:05	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:05	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/22/18 00:05	1
Molybdenum	0.043		0.0050		mg/L		05/19/18 11:03	05/22/18 00:05	1
Selenium	0.0044		0.0025		mg/L		05/19/18 11:03	05/22/18 00:05	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/22/18 00:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	820		10		mg/L			05/21/18 04:54	1
Chloride	35		2.0		mg/L			05/28/18 19:07	1
Fluoride	0.16		0.10		mg/L			05/26/18 15:25	1
Sulfate	180		50		mg/L			06/04/18 13:06	10

Client Sample Results

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: Duplicate

Date Collected: 05/14/18 00:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-15

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		05/19/18 11:03	05/22/18 20:57	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		05/19/18 11:03	05/22/18 00:09	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:09	1
Barium	0.077		0.0025		mg/L		05/19/18 11:03	05/22/18 00:09	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:09	1
Boron	3.9		1.0		mg/L		05/19/18 11:03	05/22/18 18:33	20
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/22/18 00:09	1
Calcium	95		0.20		mg/L		05/19/18 11:03	05/22/18 00:09	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/22/18 00:09	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/22/18 00:09	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/22/18 00:09	1
Molybdenum	0.042		0.0050		mg/L		05/19/18 11:03	05/22/18 00:09	1
Selenium	0.0040		0.0025		mg/L		05/19/18 11:03	05/22/18 00:09	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/22/18 00:09	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 16:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	850		10		mg/L			05/21/18 04:57	1
Chloride	36		2.0		mg/L			05/28/18 19:22	1
Fluoride	0.15		0.10		mg/L			05/26/18 15:29	1
Sulfate	190		50		mg/L			06/04/18 13:07	10

Definitions/Glossary

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

TestAmerica Job ID: 500-145716-1

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.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Powerton CCR

TestAmerica Job ID: 500-145716-1

Metals

Prep Batch: 433097

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total Recoverable	Water	3005A	
500-145716-2	MW-02	Total Recoverable	Water	3005A	
500-145716-3	MW-03	Total Recoverable	Water	3005A	
500-145716-4	MW-04	Total Recoverable	Water	3005A	
500-145716-5	MW-05	Total Recoverable	Water	3005A	
500-145716-6	MW-08	Total Recoverable	Water	3005A	
500-145716-7	MW-09	Total Recoverable	Water	3005A	
500-145716-8	MW-10	Total Recoverable	Water	3005A	
500-145716-9	MW-11	Total Recoverable	Water	3005A	
500-145716-10	MW-12	Total Recoverable	Water	3005A	
500-145716-11	MW-15	Total Recoverable	Water	3005A	
500-145716-12	MW-17	Total Recoverable	Water	3005A	
500-145716-13	MW-18	Total Recoverable	Water	3005A	
500-145716-14	MW-19	Total Recoverable	Water	3005A	
500-145716-15	Duplicate	Total Recoverable	Water	3005A	
MB 500-433097/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-433097/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-145716-1 MS	MW-01	Total Recoverable	Water	3005A	
500-145716-1 MSD	MW-01	Total Recoverable	Water	3005A	
500-145716-1 DU	MW-01	Total Recoverable	Water	3005A	

Analysis Batch: 433393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total Recoverable	Water	6020A	433097
500-145716-2	MW-02	Total Recoverable	Water	6020A	433097
500-145716-3	MW-03	Total Recoverable	Water	6020A	433097
500-145716-4	MW-04	Total Recoverable	Water	6020A	433097
500-145716-5	MW-05	Total Recoverable	Water	6020A	433097
500-145716-6	MW-08	Total Recoverable	Water	6020A	433097
500-145716-7	MW-09	Total Recoverable	Water	6020A	433097
500-145716-8	MW-10	Total Recoverable	Water	6020A	433097
500-145716-9	MW-11	Total Recoverable	Water	6020A	433097
500-145716-10	MW-12	Total Recoverable	Water	6020A	433097
500-145716-11	MW-15	Total Recoverable	Water	6020A	433097
500-145716-12	MW-17	Total Recoverable	Water	6020A	433097
500-145716-13	MW-18	Total Recoverable	Water	6020A	433097
500-145716-14	MW-19	Total Recoverable	Water	6020A	433097
500-145716-15	Duplicate	Total Recoverable	Water	6020A	433097
MB 500-433097/1-A	Method Blank	Total Recoverable	Water	6020A	433097
LCS 500-433097/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433097
500-145716-1 MS	MW-01	Total Recoverable	Water	6020A	433097
500-145716-1 MSD	MW-01	Total Recoverable	Water	6020A	433097
500-145716-1 DU	MW-01	Total Recoverable	Water	6020A	433097

Analysis Batch: 433534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total Recoverable	Water	6010C	433097
500-145716-2	MW-02	Total Recoverable	Water	6010C	433097
500-145716-3	MW-03	Total Recoverable	Water	6010C	433097
500-145716-4	MW-04	Total Recoverable	Water	6010C	433097
500-145716-5	MW-05	Total Recoverable	Water	6010C	433097

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-145716-1

Metals (Continued)

Analysis Batch: 433534 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-6	MW-08	Total Recoverable	Water	6010C	433097
500-145716-7	MW-09	Total Recoverable	Water	6010C	433097
500-145716-8	MW-10	Total Recoverable	Water	6010C	433097
500-145716-9	MW-11	Total Recoverable	Water	6010C	433097
500-145716-10	MW-12	Total Recoverable	Water	6010C	433097
500-145716-11	MW-15	Total Recoverable	Water	6010C	433097
500-145716-12	MW-17	Total Recoverable	Water	6010C	433097
500-145716-13	MW-18	Total Recoverable	Water	6010C	433097
500-145716-14	MW-19	Total Recoverable	Water	6010C	433097
500-145716-15	Duplicate	Total Recoverable	Water	6010C	433097
MB 500-433097/1-A	Method Blank	Total Recoverable	Water	6010C	433097
LCS 500-433097/2-A	Lab Control Sample	Total Recoverable	Water	6010C	433097
500-145716-1 MS	MW-01	Total Recoverable	Water	6010C	433097
500-145716-1 MSD	MW-01	Total Recoverable	Water	6010C	433097
500-145716-1 DU	MW-01	Total Recoverable	Water	6010C	433097

Analysis Batch: 433604

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total Recoverable	Water	6020A	433097
500-145716-2	MW-02	Total Recoverable	Water	6020A	433097
500-145716-3	MW-03	Total Recoverable	Water	6020A	433097
500-145716-4	MW-04	Total Recoverable	Water	6020A	433097
500-145716-5	MW-05	Total Recoverable	Water	6020A	433097
500-145716-6	MW-08	Total Recoverable	Water	6020A	433097
500-145716-7	MW-09	Total Recoverable	Water	6020A	433097
500-145716-8	MW-10	Total Recoverable	Water	6020A	433097
500-145716-9	MW-11	Total Recoverable	Water	6020A	433097
500-145716-10	MW-12	Total Recoverable	Water	6020A	433097
500-145716-11	MW-15	Total Recoverable	Water	6020A	433097
500-145716-12	MW-17	Total Recoverable	Water	6020A	433097
500-145716-13	MW-18	Total Recoverable	Water	6020A	433097
500-145716-14	MW-19	Total Recoverable	Water	6020A	433097
500-145716-15	Duplicate	Total Recoverable	Water	6020A	433097
MB 500-433097/1-A	Method Blank	Total Recoverable	Water	6020A	433097
LCS 500-433097/2-A	Lab Control Sample	Total Recoverable	Water	6020A	433097
500-145716-1 MS	MW-01	Total Recoverable	Water	6020A	433097
500-145716-1 MSD	MW-01	Total Recoverable	Water	6020A	433097
500-145716-1 DU	MW-01	Total Recoverable	Water	6020A	433097

Prep Batch: 434080

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	7470A	
500-145716-2	MW-02	Total/NA	Water	7470A	
500-145716-3	MW-03	Total/NA	Water	7470A	
500-145716-4	MW-04	Total/NA	Water	7470A	
500-145716-5	MW-05	Total/NA	Water	7470A	
500-145716-6	MW-08	Total/NA	Water	7470A	
500-145716-7	MW-09	Total/NA	Water	7470A	
500-145716-8	MW-10	Total/NA	Water	7470A	
500-145716-9	MW-11	Total/NA	Water	7470A	
500-145716-10	MW-12	Total/NA	Water	7470A	

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-145716-1

Metals (Continued)

Prep Batch: 434080 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-11	MW-15	Total/NA	Water	7470A	
500-145716-12	MW-17	Total/NA	Water	7470A	
500-145716-13	MW-18	Total/NA	Water	7470A	
500-145716-14	MW-19	Total/NA	Water	7470A	
500-145716-15	Duplicate	Total/NA	Water	7470A	
MB 500-434080/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-434080/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-145716-4 MS	MW-04	Total/NA	Water	7470A	
500-145716-4 MSD	MW-04	Total/NA	Water	7470A	
500-145716-4 DU	MW-04	Total/NA	Water	7470A	

Analysis Batch: 434677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	7470A	434080
500-145716-2	MW-02	Total/NA	Water	7470A	434080
500-145716-3	MW-03	Total/NA	Water	7470A	434080
500-145716-4	MW-04	Total/NA	Water	7470A	434080
500-145716-5	MW-05	Total/NA	Water	7470A	434080
500-145716-6	MW-08	Total/NA	Water	7470A	434080
500-145716-7	MW-09	Total/NA	Water	7470A	434080
500-145716-8	MW-10	Total/NA	Water	7470A	434080
500-145716-9	MW-11	Total/NA	Water	7470A	434080
500-145716-10	MW-12	Total/NA	Water	7470A	434080
500-145716-11	MW-15	Total/NA	Water	7470A	434080
500-145716-12	MW-17	Total/NA	Water	7470A	434080
500-145716-13	MW-18	Total/NA	Water	7470A	434080
500-145716-14	MW-19	Total/NA	Water	7470A	434080
500-145716-15	Duplicate	Total/NA	Water	7470A	434080
MB 500-434080/12-A	Method Blank	Total/NA	Water	7470A	434080
LCS 500-434080/13-A	Lab Control Sample	Total/NA	Water	7470A	434080
500-145716-4 MS	MW-04	Total/NA	Water	7470A	434080
500-145716-4 MSD	MW-04	Total/NA	Water	7470A	434080
500-145716-4 DU	MW-04	Total/NA	Water	7470A	434080

General Chemistry

Analysis Batch: 433168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	SM 2540C	
500-145716-2	MW-02	Total/NA	Water	SM 2540C	
500-145716-3	MW-03	Total/NA	Water	SM 2540C	
500-145716-4	MW-04	Total/NA	Water	SM 2540C	
500-145716-5	MW-05	Total/NA	Water	SM 2540C	
500-145716-6	MW-08	Total/NA	Water	SM 2540C	
500-145716-7	MW-09	Total/NA	Water	SM 2540C	
500-145716-8	MW-10	Total/NA	Water	SM 2540C	
500-145716-9	MW-11	Total/NA	Water	SM 2540C	
500-145716-10	MW-12	Total/NA	Water	SM 2540C	
500-145716-11	MW-15	Total/NA	Water	SM 2540C	
500-145716-12	MW-17	Total/NA	Water	SM 2540C	

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-145716-1

General Chemistry (Continued)

Analysis Batch: 433168 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-13	MW-18	Total/NA	Water	SM 2540C	
500-145716-14	MW-19	Total/NA	Water	SM 2540C	
500-145716-15	Duplicate	Total/NA	Water	SM 2540C	
MB 500-433168/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-433168/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-145716-1 MS	MW-01	Total/NA	Water	SM 2540C	
500-145716-1 DU	MW-01	Total/NA	Water	SM 2540C	
500-145716-2 DU	MW-02	Total/NA	Water	SM 2540C	

Analysis Batch: 434275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	SM 4500 F C	
500-145716-2	MW-02	Total/NA	Water	SM 4500 F C	
500-145716-3	MW-03	Total/NA	Water	SM 4500 F C	
500-145716-4	MW-04	Total/NA	Water	SM 4500 F C	
500-145716-5	MW-05	Total/NA	Water	SM 4500 F C	
500-145716-6	MW-08	Total/NA	Water	SM 4500 F C	
500-145716-7	MW-09	Total/NA	Water	SM 4500 F C	
500-145716-8	MW-10	Total/NA	Water	SM 4500 F C	
500-145716-9	MW-11	Total/NA	Water	SM 4500 F C	
500-145716-10	MW-12	Total/NA	Water	SM 4500 F C	
500-145716-11	MW-15	Total/NA	Water	SM 4500 F C	
500-145716-12	MW-17	Total/NA	Water	SM 4500 F C	
500-145716-13	MW-18	Total/NA	Water	SM 4500 F C	
500-145716-14	MW-19	Total/NA	Water	SM 4500 F C	
500-145716-15	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-434275/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-434275/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-145716-1 MS	MW-01	Total/NA	Water	SM 4500 F C	
500-145716-1 MSD	MW-01	Total/NA	Water	SM 4500 F C	

Analysis Batch: 434300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-145716-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-145716-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-145716-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-145716-5	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-145716-6	MW-08	Total/NA	Water	SM 4500 Cl- E	
500-145716-7	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-145716-8	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-145716-9	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-145716-10	MW-12	Total/NA	Water	SM 4500 Cl- E	
500-145716-11	MW-15	Total/NA	Water	SM 4500 Cl- E	
500-145716-12	MW-17	Total/NA	Water	SM 4500 Cl- E	
500-145716-13	MW-18	Total/NA	Water	SM 4500 Cl- E	
500-145716-14	MW-19	Total/NA	Water	SM 4500 Cl- E	
500-145716-15	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-434300/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-434300/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-145716-7 MS	MW-09	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-145716-1

General Chemistry (Continued)

Analysis Batch: 434300 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-7 MSD	MW-09	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 434591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-145716-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
MB 500-434591/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-434591/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 435221

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-145716-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-145716-5	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-145716-6	MW-08	Total/NA	Water	SM 4500 SO4 E	
500-145716-7	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-145716-8	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-145716-9	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-145716-10	MW-12	Total/NA	Water	SM 4500 SO4 E	
500-145716-11	MW-15	Total/NA	Water	SM 4500 SO4 E	
500-145716-12	MW-17	Total/NA	Water	SM 4500 SO4 E	
500-145716-13	MW-18	Total/NA	Water	SM 4500 SO4 E	
500-145716-14	MW-19	Total/NA	Water	SM 4500 SO4 E	
500-145716-15	Duplicate	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	
500-145716-4 MS	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-145716-4 MSD	MW-04	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

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

TestAmerica Job ID: 500-145716-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-433097/1-A

Matrix: Water

Analysis Batch: 433534

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		05/19/18 11:03	05/22/18 19:21	1

Lab Sample ID: LCS 500-433097/2-A

Matrix: Water

Analysis Batch: 433534

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 433097

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: 500-145716-1 MS

Matrix: Water

Analysis Batch: 433534

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	<0.010		0.500	0.545		mg/L		109	75 - 125

Lab Sample ID: 500-145716-1 MSD

Matrix: Water

Analysis Batch: 433534

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lithium	<0.010		0.500	0.541		mg/L		108	75 - 125	1	20

Lab Sample ID: 500-145716-1 DU

Matrix: Water

Analysis Batch: 433534

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	<0.010		<0.010		mg/L		NC	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-433097/1-A

Matrix: Water

Analysis Batch: 433393

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		05/19/18 11:03	05/21/18 22:39	1
Arsenic	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 22:39	1
Barium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 22:39	1
Beryllium	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 22:39	1
Cadmium	<0.00050		0.00050		mg/L		05/19/18 11:03	05/21/18 22:39	1
Calcium	<0.20		0.20		mg/L		05/19/18 11:03	05/21/18 22:39	1
Chromium	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 22:39	1
Cobalt	<0.0010		0.0010		mg/L		05/19/18 11:03	05/21/18 22:39	1
Molybdenum	<0.0050		0.0050		mg/L		05/19/18 11:03	05/21/18 22:39	1
Selenium	<0.0025		0.0025		mg/L		05/19/18 11:03	05/21/18 22:39	1
Thallium	<0.0020		0.0020		mg/L		05/19/18 11:03	05/21/18 22:39	1

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-145716-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-433097/1-A
Matrix: Water
Analysis Batch: 433604

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 433097

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		05/19/18 11:03	05/22/18 16:57	1
Lead	<0.00050		0.00050		mg/L		05/19/18 11:03	05/22/18 16:57	1

Lab Sample ID: LCS 500-433097/2-A
Matrix: Water
Analysis Batch: 433393

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433097

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.508		mg/L		102	80 - 120
Arsenic	0.100	0.0952		mg/L		95	80 - 120
Barium	2.00	2.01		mg/L		100	80 - 120
Beryllium	0.0500	0.0518		mg/L		104	80 - 120
Cadmium	0.0500	0.0511		mg/L		102	80 - 120
Calcium	10.0	9.19		mg/L		92	80 - 120
Chromium	0.200	0.211		mg/L		105	80 - 120
Cobalt	0.500	0.533		mg/L		107	80 - 120
Molybdenum	1.00	0.940		mg/L		94	80 - 120
Selenium	0.100	0.0954		mg/L		95	80 - 120
Thallium	0.100	0.106		mg/L		106	80 - 120

Lab Sample ID: LCS 500-433097/2-A
Matrix: Water
Analysis Batch: 433604

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 433097

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.988		mg/L		99	80 - 120
Lead	0.100	0.109		mg/L		109	80 - 120

Lab Sample ID: 500-145716-1 MS
Matrix: Water
Analysis Batch: 433393

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.521		mg/L		104	75 - 125
Arsenic	<0.0010		0.100	0.0994		mg/L		99	75 - 125
Barium	0.045		2.00	2.06		mg/L		101	75 - 125
Beryllium	<0.0010		0.0500	0.0503		mg/L		101	75 - 125
Cadmium	<0.00050		0.0500	0.0516		mg/L		103	75 - 125
Calcium	88		10.0	95.5	4	mg/L		78	75 - 125
Chromium	<0.0050		0.200	0.204		mg/L		102	75 - 125
Cobalt	<0.0010		0.500	0.506		mg/L		101	75 - 125
Molybdenum	<0.0050		1.00	0.974		mg/L		97	75 - 125
Selenium	<0.0025		0.100	0.101		mg/L		98	75 - 125
Thallium	<0.0020		0.100	0.105		mg/L		105	75 - 125

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-145716-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-145716-1 MS

Matrix: Water

Analysis Batch: 433604

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	0.15		1.00	1.14		mg/L		99	75 - 125
Lead	0.00068		0.100	0.107		mg/L		107	75 - 125

Lab Sample ID: 500-145716-1 MSD

Matrix: Water

Analysis Batch: 433393

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.523		mg/L		105	75 - 125	0	20
Arsenic	<0.0010		0.100	0.100		mg/L		99	75 - 125	1	20
Barium	0.045		2.00	2.05		mg/L		100	75 - 125	0	20
Beryllium	<0.0010		0.0500	0.0494		mg/L		99	75 - 125	2	20
Cadmium	<0.00050		0.0500	0.0517		mg/L		103	75 - 125	0	20
Calcium	88		10.0	97.1	4	mg/L		94	75 - 125	2	20
Chromium	<0.0050		0.200	0.206		mg/L		103	75 - 125	1	20
Cobalt	<0.0010		0.500	0.511		mg/L		102	75 - 125	1	20
Molybdenum	<0.0050		1.00	0.980		mg/L		98	75 - 125	1	20
Selenium	<0.0025		0.100	0.101		mg/L		99	75 - 125	1	20
Thallium	<0.0020		0.100	0.105		mg/L		105	75 - 125	0	20

Lab Sample ID: 500-145716-1 MSD

Matrix: Water

Analysis Batch: 433604

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	0.15		1.00	1.15		mg/L		101	75 - 125	1	20
Lead	0.00068		0.100	0.109		mg/L		109	75 - 125	2	20

Lab Sample ID: 500-145716-1 DU

Matrix: Water

Analysis Batch: 433393

Client Sample ID: MW-01

Prep Type: Total Recoverable

Prep Batch: 433097

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	0.045		0.0459		mg/L		1	20
Beryllium	<0.0010		<0.0010		mg/L		NC	20
Cadmium	<0.00050		<0.00050		mg/L		NC	20
Calcium	88		89.6		mg/L		2	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	<0.0010		<0.0010		mg/L		NC	20
Molybdenum	<0.0050		<0.0050		mg/L		NC	20
Selenium	<0.0025		<0.0025		mg/L		NC	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-145716-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 500-145716-1 DU
Matrix: Water
Analysis Batch: 433604

Client Sample ID: MW-01
Prep Type: Total Recoverable
Prep Batch: 433097

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Boron	0.15		0.141		mg/L		5	20
Lead	0.00068		0.000683		mg/L		1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-434080/12-A
Matrix: Water
Analysis Batch: 434677

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 434080

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		05/25/18 12:35	05/30/18 15:47	1

Lab Sample ID: LCS 500-434080/13-A
Matrix: Water
Analysis Batch: 434677

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 434080

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: 500-145716-4 MS
Matrix: Water
Analysis Batch: 434677

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 434080

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.00110		mg/L		110	75 - 125

Lab Sample ID: 500-145716-4 MSD
Matrix: Water
Analysis Batch: 434677

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 434080

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	<0.00020		0.00100	0.000972		mg/L		97	75 - 125	12	20

Lab Sample ID: 500-145716-4 DU
Matrix: Water
Analysis Batch: 434677

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 434080

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

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

Lab Sample ID: MB 500-433168/1
Matrix: Water
Analysis Batch: 433168

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			05/21/18 04:08	1

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-145716-1

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

Lab Sample ID: LCS 500-433168/2

Matrix: Water

Analysis Batch: 433168

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: 500-145716-1 MS

Matrix: Water

Analysis Batch: 433168

Client Sample ID: MW-01

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	788		mg/L		98	75 - 125

Lab Sample ID: 500-145716-1 DU

Matrix: Water

Analysis Batch: 433168

Client Sample ID: MW-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	540		554		mg/L		2	5

Lab Sample ID: 500-145716-2 DU

Matrix: Water

Analysis Batch: 433168

Client Sample ID: MW-02

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	500		508		mg/L		1	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-434300/4

Matrix: Water

Analysis Batch: 434300

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 18:51	1

Lab Sample ID: LCS 500-434300/5

Matrix: Water

Analysis Batch: 434300

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	49.6		mg/L		99	85 - 115

Lab Sample ID: 500-145716-7 MS

Matrix: Water

Analysis Batch: 434300

Client Sample ID: MW-09

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	36		50.0	81.0		mg/L		90	75 - 125

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-145716-1

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

Lab Sample ID: 500-145716-7 MSD

Matrix: Water

Analysis Batch: 434300

Client Sample ID: MW-09

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	36		50.0	80.6		mg/L		89	75 - 125	1	20

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: 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: 500-145716-1 MS

Matrix: Water

Analysis Batch: 434275

Client Sample ID: MW-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.12		5.00	5.21		mg/L		102	75 - 125

Lab Sample ID: 500-145716-1 MSD

Matrix: Water

Analysis Batch: 434275

Client Sample ID: MW-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.12		5.00	5.29		mg/L		103	75 - 125	2	20

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-434591/3

Matrix: Water

Analysis Batch: 434591

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			05/30/18 12:23	1

Lab Sample ID: LCS 500-434591/4

Matrix: Water

Analysis Batch: 434591

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 Chicago

QC Sample Results

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

TestAmerica Job ID: 500-145716-1

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

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: 500-145716-4 MS

Matrix: Water

Analysis Batch: 435221

Client Sample ID: MW-04

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	100		200	330		mg/L		113	75 - 125

Lab Sample ID: 500-145716-4 MSD

Matrix: Water

Analysis Batch: 435221

Client Sample ID: MW-04

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	100		200	285		mg/L		90	75 - 125	15	20

Lab Chronicle

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-01

Date Collected: 05/17/18 15:15

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 19:37	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 22:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 17:05	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:04	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:13	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	434300	05/28/18 18:53	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 14:30	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	434591		CLB	TAL CHI
						(Start) 05/30/18 12:43		
						(End) 05/30/18 12:44		

Client Sample ID: MW-02

Date Collected: 05/15/18 09:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 19:56	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:12	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 17:24	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:06	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:20	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	434300	05/28/18 18:54	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 14:38	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	434591		CLB	TAL CHI
						(Start) 05/30/18 12:44		
						(End) 05/30/18 12:45		

Client Sample ID: MW-03

Date Collected: 05/15/18 11:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:00	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-03

Date Collected: 05/15/18 11:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:16	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 17:28	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:08	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:26	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	434300	05/28/18 18:55	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 14:41	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	435221		CLB	TAL CHI
						(Start) 06/04/18 12:51		
						(End) 06/04/18 12:52		

Client Sample ID: MW-04

Date Collected: 05/15/18 12:11

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:04	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:20	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 17:32	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:10	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:28	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	434300	05/28/18 18:56	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 14:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	435221		CLB	TAL CHI
						(Start) 06/04/18 12:52		
						(End) 06/04/18 12:53		

Client Sample ID: MW-05

Date Collected: 05/15/18 13:31

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:08	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:24	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 17:44	FXG	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-05

Date Collected: 05/15/18 13:31

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:23	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:31	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434300	05/28/18 18:57	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 14:48	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435221		CLB	TAL CHI
					(Start)	06/04/18 12:55		
					(End)	06/04/18 12:56		

Client Sample ID: MW-08

Date Collected: 05/17/18 13:29

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:12	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:27	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	433604	05/22/18 17:47	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:26	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:33	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434300	05/28/18 18:58	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 14:51	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435221		CLB	TAL CHI
					(Start)	06/04/18 12:56		
					(End)	06/04/18 12:57		

Client Sample ID: MW-09

Date Collected: 05/16/18 10:19

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:24	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:31	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433604	05/22/18 17:51	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:28	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:36	CLB	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-09

Date Collected: 05/16/18 10:19

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	434300	05/28/18 19:01	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:04	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435221	(Start) 06/04/18 12:57 (End) 06/04/18 12:58	CLB	TAL CHI

Client Sample ID: MW-10

Date Collected: 05/16/18 11:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:28	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:35	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 17:55	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:30	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:39	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	434300	05/28/18 19:02	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:07	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	435221	(Start) 06/04/18 12:58 (End) 06/04/18 12:59	CLB	TAL CHI

Client Sample ID: MW-11

Date Collected: 05/16/18 13:01

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:32	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:39	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	433604	05/22/18 17:59	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:33	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:41	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434300	05/28/18 19:03	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:10	EAT	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-11

Date Collected: 05/16/18 13:01

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-9

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	435221		CLB	TAL CHI
					(Start)	06/04/18 13:01		
					(End)	06/04/18 13:02		

Client Sample ID: MW-12

Date Collected: 05/16/18 14:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:36	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:43	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 18:03	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:35	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:44	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434300	05/28/18 19:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:13	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		25	435221		CLB	TAL CHI
					(Start)	06/04/18 13:02		
					(End)	06/04/18 13:03		

Client Sample ID: MW-15

Date Collected: 05/17/18 11:58

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:40	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:54	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	433604	05/22/18 18:07	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:37	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:46	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434300	05/28/18 19:04	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:16	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		25	435221		CLB	TAL CHI
					(Start)	06/04/18 13:03		
					(End)	06/04/18 13:04		

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-17

Date Collected: 05/14/18 14:51

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:44	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/21/18 23:58	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	433604	05/22/18 18:11	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:44	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:49	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434300	05/28/18 19:04	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:19	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		25	435221		CLB	TAL CHI
						(Start) 06/04/18 13:04		
						(End) 06/04/18 13:05		

Client Sample ID: MW-18

Date Collected: 05/14/18 16:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:48	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/22/18 00:01	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433604	05/22/18 18:15	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:46	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:51	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	434300	05/28/18 19:05	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:22	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	435221		CLB	TAL CHI
						(Start) 06/04/18 13:05		
						(End) 06/04/18 13:06		

Client Sample ID: MW-19

Date Collected: 05/14/18 17:35

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:52	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-1

Client Sample ID: MW-19

Date Collected: 05/14/18 17:35

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020A		1	433393	05/22/18 00:05	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433604	05/22/18 18:18	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:49	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:54	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	434300	05/28/18 19:07	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:25	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435221		CLB	TAL CHI
						(Start) 06/04/18 13:06		
						(End) 06/04/18 13:07		

Client Sample ID: Duplicate

Date Collected: 05/14/18 00:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	433534	05/22/18 20:57	PJ1	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	433393	05/22/18 00:09	FXG	TAL CHI
Total Recoverable	Prep	3005A			433097	05/19/18 11:03	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	433604	05/22/18 18:33	FXG	TAL CHI
Total/NA	Prep	7470A			434080	05/25/18 12:35	EEN	TAL CHI
Total/NA	Analysis	7470A		1	434677	05/30/18 16:51	EEN	TAL CHI
Total/NA	Analysis	SM 2540C		1	433168	05/21/18 04:57	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	434300	05/28/18 19:22	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	434275	05/26/18 15:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	435221		CLB	TAL CHI
						(Start) 06/04/18 13:07		
						(End) 06/04/18 13:08		

Laboratory References:

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

TestAmerica Chicago

Accreditation/Certification Summary

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

TestAmerica Job ID: 500-145716-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago

2417 Bond St.

University Park, IL 60484

708-534-5200

Fax: 708-534-5211

Report To:

Contact: Richard Gnat
Company: KPRG and Associates, Inc
Address: 14665 W. Lisbon Rd., Suite 2B
Brookfield, WI 53005
Phone: 262-781-0475
Email: richardg@kprginc.com

Bill To:

Contact: _____
Company: _____
Address: _____
Phone: _____
Email: 500-145716 COC
PO #: _____



Lab Lot # 500-145716

Package Sealed
Yes No
Samples Sealed
Yes No
Received on Ice
Yes No
Samples Intact
Yes No N/A

Temperature °C of Cooler
3.9, 4.7, 3.1, 2.1, 2.8

Within Hold Time
Yes No
Preserv. Indicated
Yes No N/A
pH Check OK
Yes No
Res. CL₂ Check OK
Yes No N/A
Sample Labels and COC Agree
Yes No
COC not present

Sampler Name:		COMPANY:		# / Cont.												Within Hold Time		Preserv. Indicated	
Ian John Howieson		KPRG & Associates Inc.		Volume												Yes No		Yes No N/A	
Project Name:		TestAmerica Project Number:		Preserv.												pH Check OK		Res. CL ₂ Check OK	
Quarterly- Powerton CCR		50011612														Yes No		Yes No N/A	
Project Location:		TAT		Matrix	# of Cont											Sample Labels and COC Agree			
Pekin, IL		15 Days														Yes No COC not present			
Lab PM: Eric Lang		eric.lang@testamerica.com																	
Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time			903.0, 904.0 Radium 226/228	6010C, 6020A, 7470A - Total Metals	2540C -TDS	4500_F_C - Fluoride	SM4500_Cl_E Chloride	SM4500_SO4_E - Sulfate					Additional Analyses / Remarks		
1		MW-01	5-17-18	15:15	W	5	X	X	X	X	X	X							
2		MW-02	5-15-18	09:05	W	5	X	X	X	X	X	X							
3		MW-03	5-15-18	11:00	W	5	X	X	X	X	X	X							
4		MW-04	5-15-18	12:11	W	5	X	X	X	X	X	X							
5		MW-05	5-15-18	13:31	W	5	X	X	X	X	X	X							
6		MW-08	5-17-18	13:29	W	5	X	X	X	X	X	X							
7		MW-09	5-16-18	10:19	W	5	X	X	X	X	X	X							
8		MW-10	5-16-18	11:41	W	5	X	X	X	X	X	X							
9		MW-11	5-16-18	13:01	W	5	X	X	X	X	X	X							
10		MW-12	5-16-18	14:41	W	5	X	X	X	X	X	X							
11		MW-15	5-17-18	11:58	W	5	X	X	X	X	X	X							

RELINQUISHED BY: IJH	COMPANY: KPRG	DATE: 5-18-18	TIME: 17:20	RECEIVED BY: <i>[Signature]</i>	COMPANY: TA	DATE: 5/18/18	TIME: 1720
RELINQUISHED BY:	COMPANY:	DATE:	TIME:	RECEIVED BY:	COMPANY:	DATE:	TIME:

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DL = Drum Liquid
DS = Drum Solid
L = Leachate
W = Wipe
O =

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other

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. Cool to 4°
7. None

COMMENTS:

Date
Received 05/18/18
Courier:
Hand Delivered ☒
Bill of Lading:

1 of 2

STL-8208 (0600)

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145716-1

Login Number: 145716

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	2.1, 2.8, 3.1, 3.9, 4.7
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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: 500-145716-2

Client Project/Site: Powerton CCR

For:

KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 2B

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

6/28/2018 1:30:40 PM

Eric Lang, Manager of Project Management

(708)534-5200

eric.lang@testamericainc.com

LINKS

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results through

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: Powerton CCR

TestAmerica Job ID: 500-145716-2

Job ID: 500-145716-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-145716-2

Comments

No additional comments.

Receipt

The samples were received on 5/18/2018 5:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 5 coolers at receipt time were 2.1° C, 2.8° C, 3.1° C, 3.9° C and 4.7° 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: Powerton CCR

TestAmerica Job ID: 500-145716-2

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: Powerton CCR

TestAmerica Job ID: 500-145716-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-145716-1	MW-01	Water	05/17/18 15:15	05/18/18 17:20
500-145716-2	MW-02	Water	05/15/18 09:05	05/18/18 17:20
500-145716-3	MW-03	Water	05/15/18 11:00	05/18/18 17:20
500-145716-4	MW-04	Water	05/15/18 12:11	05/18/18 17:20
500-145716-5	MW-05	Water	05/15/18 13:31	05/18/18 17:20
500-145716-6	MW-08	Water	05/17/18 13:29	05/18/18 17:20
500-145716-7	MW-09	Water	05/16/18 10:19	05/18/18 17:20
500-145716-8	MW-10	Water	05/16/18 11:41	05/18/18 17:20
500-145716-9	MW-11	Water	05/16/18 13:01	05/18/18 17:20
500-145716-10	MW-12	Water	05/16/18 14:41	05/18/18 17:20
500-145716-11	MW-15	Water	05/17/18 11:58	05/18/18 17:20
500-145716-12	MW-17	Water	05/14/18 14:51	05/18/18 17:20
500-145716-13	MW-18	Water	05/14/18 16:05	05/18/18 17:20
500-145716-14	MW-19	Water	05/14/18 17:35	05/18/18 17:20
500-145716-15	Duplicate	Water	05/14/18 00:00	05/18/18 17:20

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-01

Date Collected: 05/17/18 15:15

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-1

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	0.109	U	0.143	0.143	1.00	0.238	pCi/L	05/29/18 11:58	06/20/18 10:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					05/29/18 11:58	06/20/18 10:42	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	0.244	U	0.243	0.244	1.00	0.396	pCi/L	05/29/18 13:22	06/19/18 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		40 - 110					05/29/18 13:22	06/19/18 10:52	1
Y Carrier	87.1		40 - 110					05/29/18 13:22	06/19/18 10:52	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	0.353	U	0.282	0.283	5.00	0.396	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-02

Date Collected: 05/15/18 09:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-2

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	0.0490	U	0.132	0.132	1.00	0.244	pCi/L	05/29/18 11:58	06/20/18 10:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/29/18 11:58	06/20/18 10:42	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	-0.0624	U	0.224	0.224	1.00	0.408	pCi/L	05/29/18 13:22	06/19/18 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					05/29/18 13:22	06/19/18 10:52	1
Y Carrier	84.5		40 - 110					05/29/18 13:22	06/19/18 10:52	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	-0.0134	U	0.260	0.260	5.00	0.408	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-03

Date Collected: 05/15/18 11:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-3

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	0.0740	U	0.146	0.146	1.00	0.262	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.326	U	0.302	0.303	1.00	0.489	pCi/L	05/29/18 13:22	06/19/18 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.5		40 - 110					05/29/18 13:22	06/19/18 10:52	1
Y Carrier	80.7		40 - 110					05/29/18 13:22	06/19/18 10:52	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	0.400	U	0.335	0.336	5.00	0.489	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-04
Date Collected: 05/15/18 12:11
Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-4
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	0.243	U	0.188	0.190	1.00	0.273	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.418		0.270	0.273	1.00	0.417	pCi/L	05/29/18 13:22	06/19/18 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					05/29/18 13:22	06/19/18 10:52	1
Y Carrier	81.5		40 - 110					05/29/18 13:22	06/19/18 10:52	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	0.661		0.329	0.333	5.00	0.417	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-05

Date Collected: 05/15/18 13:31

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-5

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	0.0476	U	0.142	0.142	1.00	0.266	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.337	U	0.248	0.250	1.00	0.390	pCi/L	05/29/18 13:22	06/19/18 10:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.3		40 - 110					05/29/18 13:22	06/19/18 10:52	1
Y Carrier	86.0		40 - 110					05/29/18 13:22	06/19/18 10:52	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	0.385	U	0.286	0.288	5.00	0.390	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-08

Date Collected: 05/17/18 13:29

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-6

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	0.323		0.210	0.212	1.00	0.285	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.333	U	0.265	0.267	1.00	0.420	pCi/L	05/29/18 13:22	06/19/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.5		40 - 110					05/29/18 13:22	06/19/18 10:53	1
Y Carrier	87.9		40 - 110					05/29/18 13:22	06/19/18 10:53	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	0.655		0.338	0.341	5.00	0.420	pCi/L		06/23/18 19:42	1

TestAmerica Chicago

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-09

Date Collected: 05/16/18 10:19

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-7

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	0.103	U	0.141	0.142	1.00	0.238	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.235	U	0.259	0.260	1.00	0.424	pCi/L	05/29/18 13:22	06/19/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/29/18 13:22	06/19/18 10:53	1
Y Carrier	87.1		40 - 110					05/29/18 13:22	06/19/18 10:53	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	0.338	U	0.295	0.296	5.00	0.424	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-10

Date Collected: 05/16/18 11:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-8

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	0.780		0.259	0.268	1.00	0.251	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.766		0.289	0.297	1.00	0.400	pCi/L	05/29/18 13:22	06/19/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					05/29/18 13:22	06/19/18 10:53	1
Y Carrier	83.0		40 - 110					05/29/18 13:22	06/19/18 10:53	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	1.55		0.388	0.400	5.00	0.400	pCi/L		06/23/18 19:42	1

TestAmerica Chicago

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-11

Date Collected: 05/16/18 13:01

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-9

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	0.625		0.234	0.241	1.00	0.235	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.497		0.263	0.267	1.00	0.395	pCi/L	05/29/18 13:22	06/19/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					05/29/18 13:22	06/19/18 10:53	1
Y Carrier	88.6		40 - 110					05/29/18 13:22	06/19/18 10:53	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	1.12		0.352	0.360	5.00	0.395	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-12

Date Collected: 05/16/18 14:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-10

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	0.690		0.255	0.263	1.00	0.263	pCi/L	05/29/18 11:58	06/20/18 10:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/29/18 11:58	06/20/18 10:43	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	0.0505	U	0.229	0.229	1.00	0.401	pCi/L	05/29/18 13:22	06/19/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					05/29/18 13:22	06/19/18 10:53	1
Y Carrier	88.2		40 - 110					05/29/18 13:22	06/19/18 10:53	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	0.741		0.343	0.349	5.00	0.401	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-15

Date Collected: 05/17/18 11:58

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-11

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	0.172	U	0.154	0.154	1.00	0.232	pCi/L	05/29/18 11:58	06/20/18 13:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/29/18 11:58	06/20/18 13:17	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	0.226	U	0.217	0.218	1.00	0.351	pCi/L	05/29/18 13:22	06/19/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					05/29/18 13:22	06/19/18 10:53	1
Y Carrier	85.6		40 - 110					05/29/18 13:22	06/19/18 10:53	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	0.397		0.266	0.267	5.00	0.351	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-17

Date Collected: 05/14/18 14:51

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-12

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	1.27		0.316	0.336	1.00	0.250	pCi/L	05/29/18 11:58	06/20/18 13:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/29/18 11:58	06/20/18 13:17	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	0.755		0.284	0.292	1.00	0.398	pCi/L	05/29/18 13:22	06/19/18 10:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					05/29/18 13:22	06/19/18 10:53	1
Y Carrier	92.3		40 - 110					05/29/18 13:22	06/19/18 10:53	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	2.03		0.425	0.445	5.00	0.398	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-18

Date Collected: 05/14/18 16:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-13

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	0.332		0.189	0.192	1.00	0.244	pCi/L	05/29/18 11:58	06/20/18 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/29/18 11:58	06/20/18 12:47	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	0.309	U	0.206	0.208	1.00	0.317	pCi/L	05/29/18 13:22	06/19/18 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/29/18 13:22	06/19/18 10:57	1
Y Carrier	87.5		40 - 110					05/29/18 13:22	06/19/18 10:57	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	0.641		0.280	0.283	5.00	0.317	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-19

Date Collected: 05/14/18 17:35

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-14

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	0.235	U	0.173	0.174	1.00	0.246	pCi/L	05/29/18 11:58	06/20/18 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/29/18 11:58	06/20/18 12:47	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	0.326		0.193	0.195	1.00	0.288	pCi/L	05/29/18 13:22	06/19/18 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/29/18 13:22	06/19/18 10:57	1
Y Carrier	88.2		40 - 110					05/29/18 13:22	06/19/18 10:57	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	0.562		0.259	0.261	5.00	0.288	pCi/L		06/23/18 19:42	1

Client Sample Results

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: Duplicate

Date Collected: 05/14/18 00:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-15

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	0.193	U	0.166	0.166	1.00	0.249	pCi/L	05/29/18 11:58	06/20/18 12:47	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/29/18 11:58	06/20/18 12:47	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	0.404		0.210	0.213	1.00	0.307	pCi/L	05/29/18 13:22	06/19/18 10:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/29/18 13:22	06/19/18 10:57	1
Y Carrier	87.5		40 - 110					05/29/18 13:22	06/19/18 10:57	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	0.597		0.268	0.270	5.00	0.307	pCi/L		06/23/18 19:42	1

TestAmerica Chicago

Definitions/Glossary

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

TestAmerica Job ID: 500-145716-2

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.
α	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: Powerton CCR

TestAmerica Job ID: 500-145716-2

Rad

Prep Batch: 367843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	PrecSep-21	
500-145716-2	MW-02	Total/NA	Water	PrecSep-21	
500-145716-3	MW-03	Total/NA	Water	PrecSep-21	
500-145716-4	MW-04	Total/NA	Water	PrecSep-21	
500-145716-5	MW-05	Total/NA	Water	PrecSep-21	
500-145716-6	MW-08	Total/NA	Water	PrecSep-21	
500-145716-7	MW-09	Total/NA	Water	PrecSep-21	
500-145716-8	MW-10	Total/NA	Water	PrecSep-21	
500-145716-9	MW-11	Total/NA	Water	PrecSep-21	
500-145716-10	MW-12	Total/NA	Water	PrecSep-21	
500-145716-11	MW-15	Total/NA	Water	PrecSep-21	
500-145716-12	MW-17	Total/NA	Water	PrecSep-21	
500-145716-13	MW-18	Total/NA	Water	PrecSep-21	
500-145716-14	MW-19	Total/NA	Water	PrecSep-21	
500-145716-15	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-367843/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-367843/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-145716-10 DU	MW-12	Total/NA	Water	PrecSep-21	

Prep Batch: 367857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-145716-1	MW-01	Total/NA	Water	PrecSep_0	
500-145716-2	MW-02	Total/NA	Water	PrecSep_0	
500-145716-3	MW-03	Total/NA	Water	PrecSep_0	
500-145716-4	MW-04	Total/NA	Water	PrecSep_0	
500-145716-5	MW-05	Total/NA	Water	PrecSep_0	
500-145716-6	MW-08	Total/NA	Water	PrecSep_0	
500-145716-7	MW-09	Total/NA	Water	PrecSep_0	
500-145716-8	MW-10	Total/NA	Water	PrecSep_0	
500-145716-9	MW-11	Total/NA	Water	PrecSep_0	
500-145716-10	MW-12	Total/NA	Water	PrecSep_0	
500-145716-11	MW-15	Total/NA	Water	PrecSep_0	
500-145716-12	MW-17	Total/NA	Water	PrecSep_0	
500-145716-13	MW-18	Total/NA	Water	PrecSep_0	
500-145716-14	MW-19	Total/NA	Water	PrecSep_0	
500-145716-15	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-367857/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-367857/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-145716-10 DU	MW-12	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 500-145716-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-367843/23-A

Matrix: Water

Analysis Batch: 371317

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367843

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1840	U	0.137	0.138	1.00	0.195	pCi/L	05/29/18 11:58	06/20/18 12:44	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/29/18 11:58	06/20/18 12:44	1

Lab Sample ID: LCS 160-367843/1-A

Matrix: Water

Analysis Batch: 371320

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 367843

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
Radium-226	11.8	11.82		1.37	1.00	0.215	pCi/L	100	68 - 137	
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	107		40 - 110							

Lab Sample ID: 500-145716-10 DU

Matrix: Water

Analysis Batch: 371320

Client Sample ID: MW-12

Prep Type: Total/NA

Prep Batch: 367843

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.690		0.4100		0.198	1.00	0.223	pCi/L	0.61	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	97.1		40 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-367857/23-A

Matrix: Water

Analysis Batch: 371107

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 367857

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.05875	U	0.188	0.188	1.00	0.328	pCi/L	05/29/18 13:22	06/19/18 10:59	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/29/18 13:22	06/19/18 10:59	1
Y Carrier	87.9		40 - 110					05/29/18 13:22	06/19/18 10:59	1

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-145716-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-367857/1-A
Matrix: Water
Analysis Batch: 371219

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 367857

						Total							
Analyte			Spike	LCS	LCS	Uncert.					%Rec.		
			Added	Result	Qual	(2σ+/-)	RL	MDC	Unit	%Rec	Limits		
Radium-228			8.21	7.721		0.925	1.00	0.422	pCi/L	94	56 - 140		
Carrier	LCS	LCS											
	%Yield	Qualifier	Limits										
Ba Carrier	107		40 - 110										
Y Carrier	84.5		40 - 110										

Lab Sample ID: 500-145716-10 DU
Matrix: Water
Analysis Batch: 371219

Client Sample ID: MW-12
Prep Type: Total/NA
Prep Batch: 367857

Analyte	Sample	Sample	DU		Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-228	0.0505	U	0.1106	U	0.228	1.00	0.388	pCi/L	0.13	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	97.1		40 - 110							
Y Carrier	82.6		40 - 110							

Lab Chronicle

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-01

Date Collected: 05/17/18 15:15

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-02

Date Collected: 05/15/18 09:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-03

Date Collected: 05/15/18 11:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-04

Date Collected: 05/15/18 12:11

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-05

Date Collected: 05/15/18 13:31

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:52	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-08

Date Collected: 05/17/18 13:29

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-09

Date Collected: 05/16/18 10:19

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-10

Date Collected: 05/16/18 11:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-11

Date Collected: 05/16/18 13:01

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-12

Date Collected: 05/16/18 14:41

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 10:43	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-15

Date Collected: 05/17/18 11:58

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 13:17	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-17

Date Collected: 05/14/18 14:51

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 13:17	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371219	06/19/18 10:53	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-145716-2

Client Sample ID: MW-18

Date Collected: 05/14/18 16:05

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 12:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371132	06/19/18 10:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: MW-19

Date Collected: 05/14/18 17:35

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 12:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371132	06/19/18 10:57	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	372130	06/23/18 19:42	RTM	TAL SL

Client Sample ID: Duplicate

Date Collected: 05/14/18 00:00

Date Received: 05/18/18 17:20

Lab Sample ID: 500-145716-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367843	05/29/18 11:58	TJT	TAL SL
Total/NA	Analysis	903.0		1	371320	06/20/18 12:47	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367857	05/29/18 13:22	TJT	TAL SL
Total/NA	Analysis	904.0		1	371132	06/19/18 10:57	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

Accreditation/Certification Summary

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

TestAmerica Job ID: 500-145716-2

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

Laboratory: TestAmerica St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	200023	11-30-18

The following analytes are included in this report, but accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
903.0	PrecSep-21	Water	Radium-226
904.0	PrecSep_0	Water	Radium-228
Ra226_Ra228		Water	Combined Radium 226 + 228

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago

2417 Bond St.

University Park, IL 60484

708-534-5200

Fax: 708-534-5211

Report To:

Contact: Richard Gnat
Company: KPRG and Associates, Inc
Address: 14665 W. Lisbon Rd., Suite 2B
Brookfield, WI 53005
Phone: 262-781-0475
Email: richardg@kprginc.com

Bill To:

Contact: _____
Company: _____
Address: _____
Phone: _____
Email: 500-145716 COC
PO #: _____



Lab Lot # 500-145716

Package Sealed
Yes No
Samples Sealed
Yes No
Received on Ice
Yes No
Samples Intact
Yes No N/A

Temperature °C of Cooler
3.9, 4.7, 3.1, 2.1, 2.8

Within Hold Time
Yes No
Preserv. Indicated
Yes No N/A
pH Check OK
Yes No
Res. CL₂ Check OK
Yes No N/A
Sample Labels and COC Agree
Yes No
COC not present

Sampler Name:		COMPANY:		# / Cont.		Volume		Preserv.		Matrix		# of Cont		Additional Analyses / Remarks	
Ian John Howieson		KPRG & Associates Inc.													
Project Name:		TestAmerica Project Number:													
Quarterly- Powerton CCR		50011612													
Project Location:		TAT													
Pekin, IL		15 Days													
Lab PM: Eric Lang		eric.lang@testamerica.com													
Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time											
1		MW-01	5-17-18	15:15	W	5	X	X	X	X	X	X	X		
2		MW-02	5-15-18	09:05	W	5	X	X	X	X	X	X	X		
3		MW-03	5-15-18	11:00	W	5	X	X	X	X	X	X	X		
4		MW-04	5-15-18	12:11	W	5	X	X	X	X	X	X	X		
5		MW-05	5-15-18	13:31	W	5	X	X	X	X	X	X	X		
6		MW-08	5-17-18	13:29	W	5	X	X	X	X	X	X	X		
7		MW-09	5-16-18	10:19	W	5	X	X	X	X	X	X	X		
8		MW-10	5-16-18	11:41	W	5	X	X	X	X	X	X	X		
9		MW-11	5-16-18	13:01	W	5	X	X	X	X	X	X	X		
10		MW-12	5-16-18	14:41	W	5	X	X	X	X	X	X	X		
11		MW-15	5-17-18	11:58	W	5	X	X	X	X	X	X	X		

RELINQUISHED BY: IJH	COMPANY: KPRG	DATE: 5-18-18	TIME: 17:20	RECEIVED BY: [Signature]	COMPANY: TA	DATE: 5/18/18	TIME: 1720
RELINQUISHED BY:	COMPANY:	DATE:	TIME:	RECEIVED BY:	COMPANY:	DATE:	TIME:

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DL = Drum Liquid
DS = Drum Solid
L = Leachate
W = Wipe
O =

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other

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. Cool to 4°
7. None

COMMENTS:

Date
Received 05/18/18
Courier:
Hand Delivered ☒
Bill of Lading:

1 of 2

STL-8208 (0600)

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:				
Client Contact:		Lang, Eric A.		E-Mail:		eric.lang@testamericainc.com		500-104744.1				
Shipping/Receiving		Phone:		State of Origin:		Illinois		Page: 1 of 2				
Company:		TestAmerica Laboratories, Inc.		Accreditations Required (See note):		NELAP - Illinois		Job #: 500-145716-2				
Address:		13715 Rider Trail North,		Due Date Requested:		6/19/2018		Preservation Codes:				
City:		Earth City		TAT Requested (days):				A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anichlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:				
State, Zip:		MO, 63045		PO #:				M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)				
Phone:		314-298-8566(Tel) 314-298-8757(Fax)		WO #:								
Email:				Project #:		50011612						
Project Name:		Powerton CCR		SSOW#:								
Site:		MWG - Powerton										
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=water/oil, BT= tissue, A= air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep. 21 Standard Target List	904.0/PreSep. 0 Standard Target List	Analysis Requested	Total Number of Containers	Special Instructions/Note:
MW-01 (500-145716-1)	5/17/18	15:15 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-02 (500-145716-2)	5/15/18	09:05 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-03 (500-145716-3)	5/15/18	11:00 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-04 (500-145716-4)	5/15/18	12:11 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-05 (500-145716-5)	5/15/18	13:31 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-08 (500-145716-6)	5/17/18	13:29 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-09 (500-145716-7)	5/16/18	10:19 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-10 (500-145716-8)	5/16/18	11:41 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-11 (500-145716-9)	5/16/18	13:01 Central	Water			X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our 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/test/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												
Deliverable Requested: I, II, III, IV, Other (specify)												
Primary Deliverable Rank: 2												
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: 5/21/18 Time: 13:15												
Relinquished by: [Signature]												
Relinquished by: [Signature]												
Relinquished by: [Signature]												
Relinquished by: [Signature]												
Custody Seal No.: [Signature]												
Custody Seal Intact: Yes No												
Cooler Temperature(s) °C and Other Remarks:												

	Ver. 09/20/2016
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Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-145716-2

Login Number: 145716

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	2.1, 2.8, 3.1, 3.9, 4.7
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 $<6\text{mm}$ (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: 500-145716-2

Login Number: 145716

List Number: 2

Creator: Press, Nicholas B

List Source: TestAmerica St. Louis

List Creation: 05/22/18 11:08 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	12
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 $<6\text{mm}$ (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: 500-145716-2

Login Number: 145716

List Number: 3

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 $\leq$ 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	12
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

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

TestAmerica Job ID: 500-145716-2

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)	
500-145716-1	MW-01	98.2	
500-145716-2	MW-02	100	
500-145716-3	MW-03	96.5	
500-145716-4	MW-04	93.2	
500-145716-5	MW-05	95.3	
500-145716-6	MW-08	85.5	
500-145716-7	MW-09	92.9	
500-145716-8	MW-10	95.9	
500-145716-9	MW-11	95.0	
500-145716-10	MW-12	93.8	
500-145716-10 DU	MW-12	97.1	
500-145716-11	MW-15	97.6	
500-145716-12	MW-17	92.9	
500-145716-13	MW-18	103	
500-145716-14	MW-19	104	
500-145716-15	Duplicate	101	
LCS 160-367843/1-A	Lab Control Sample	107	
MB 160-367843/23-A	Method Blank	103	

Tracer/Carrier Legend

Ba Carrier = 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 Carrier (40-110)	Y Carrier (40-110)
500-145716-1	MW-01	98.2	87.1
500-145716-2	MW-02	100	84.5
500-145716-3	MW-03	96.5	80.7
500-145716-4	MW-04	93.2	81.5
500-145716-5	MW-05	95.3	86.0
500-145716-6	MW-08	85.5	87.9
500-145716-7	MW-09	92.9	87.1
500-145716-8	MW-10	95.9	83.0
500-145716-9	MW-11	95.0	88.6
500-145716-10	MW-12	93.8	88.2
500-145716-10 DU	MW-12	97.1	82.6
500-145716-11	MW-15	97.6	85.6
500-145716-12	MW-17	92.9	92.3
500-145716-13	MW-18	103	87.5
500-145716-14	MW-19	104	88.2
500-145716-15	Duplicate	101	87.5
LCS 160-367857/1-A	Lab Control Sample	107	84.5
MB 160-367857/23-A	Method Blank	103	87.9

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Y Carrier = Y Carrier

TestAmerica Chicago

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-149809-1

Client Project/Site: Powerton CCR

For:

KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 1A

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

8/24/2018 2:41:29 PM

Eric Lang, Manager of Project Management

(708)534-5200

eric.lang@testamericainc.com

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: Powerton CCR

TestAmerica Job ID: 500-149809-1

Job ID: 500-149809-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-149809-1

Comments

No additional comments.

Receipt

The samples were received on 8/10/2018 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 3.6° C, 3.7° C, 5.2° C, 5.4° C and 6.0° C.

Metals

Method(s) 6020A: The internal standard Terbium (Tb) was used to report the elements Lead and Thallium in batch 500-445195. This was due to the LCS being spiked with the trace digestion spike which contains Bismuth

Method(s) 6020A: The CCV at line 63 and CCVL at line 38, associated with batch 500-445195 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.

Detection Summary

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-01

Lab Sample ID: 500-149809-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.051		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.14		0.050		mg/L	1		6020A	Total Recoverable
Calcium	86		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	430		10		mg/L	1		SM 2540C	Total/NA
Chloride	48		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	43		10		mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-02

Lab Sample ID: 500-149809-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0016		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.067		0.0025		mg/L	1		6020A	Total Recoverable
Boron	1.5		0.25		mg/L	5		6020A	Total Recoverable
Calcium	89		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	530		10		mg/L	1		SM 2540C	Total/NA
Chloride	54		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	51		25		mg/L	5		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-03

Lab Sample ID: 500-149809-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0015		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.067		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.40		0.050		mg/L	1		6020A	Total Recoverable
Calcium	82		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	500		10		mg/L	1		SM 2540C	Total/NA
Chloride	67		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.22		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	49		25		mg/L	5		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-04

Lab Sample ID: 500-149809-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0011		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.031		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.79		0.050		mg/L	1		6020A	Total Recoverable
Calcium	84		0.20		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-04 (Continued)

Lab Sample ID: 500-149809-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Molybdenum	0.0060		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	510		10		mg/L	1		SM 2540C	Total/NA
Chloride	71		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.32		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	49		25		mg/L	5		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-05

Lab Sample ID: 500-149809-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.054		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.49		0.050		mg/L	1		6020A	Total Recoverable
Calcium	110		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.0069		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	890		10		mg/L	1		SM 2540C	Total/NA
Chloride	120		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.32		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	180		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-08

Lab Sample ID: 500-149809-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0055		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.071		0.0025		mg/L	1		6020A	Total Recoverable
Boron	1.1		0.25		mg/L	5		6020A	Total Recoverable
Calcium	140		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.019		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1200		10		mg/L	1		SM 2540C	Total/NA
Chloride	270		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.32		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	190		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-09

Lab Sample ID: 500-149809-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.037		0.0025		mg/L	1		6020A	Total Recoverable
Boron	4.3		1.0		mg/L	20		6020A	Total Recoverable
Calcium	86		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.032		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.0078		0.0025		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-09 (Continued)

Lab Sample ID: 500-149809-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Total Dissolved Solids	690		10		mg/L	1		SM 2540C	Total/NA
Chloride	39		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	180		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-10

Lab Sample ID: 500-149809-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0012		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.22		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.39		0.050		mg/L	1		6020A	Total Recoverable
Calcium	99		0.20		mg/L	1		6020A	Total Recoverable
Cobalt	0.014		0.0010		mg/L	1		6020A	Total Recoverable
Lead	0.00079		0.00050		mg/L	1		6020A	Total Recoverable
Selenium	0.0062		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	550		10		mg/L	1		SM 2540C	Total/NA
Chloride	58		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	60		20		mg/L	4		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-11

Lab Sample ID: 500-149809-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.68		0.0010		mg/L	1		6020A	Total Recoverable
Barium	3.0		0.0025		mg/L	1		6020A	Total Recoverable
Boron	1.4		0.50		mg/L	10		6020A	Total Recoverable
Cadmium	0.00082		0.00050		mg/L	1		6020A	Total Recoverable
Calcium	160		0.20		mg/L	1		6020A	Total Recoverable
Cobalt	0.0053		0.0010		mg/L	1		6020A	Total Recoverable
Lead	0.0012		0.00050		mg/L	1		6020A	Total Recoverable
Molybdenum	0.013		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1000		10		mg/L	1		SM 2540C	Total/NA
Chloride	120		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.65		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	220		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-12

Lab Sample ID: 500-149809-10

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-12 (Continued)

Lab Sample ID: 500-149809-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.12		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.15		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.61		0.050		mg/L	1		6020A	Total Recoverable
Cadmium	0.00084		0.00050		mg/L	1		6020A	Total Recoverable
Calcium	120		0.20		mg/L	1		6020A	Total Recoverable
Lead	0.00072		0.00050		mg/L	1		6020A	Total Recoverable
Molybdenum	0.026		0.0050		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1300		10		mg/L	1		SM 2540C	Total/NA
Chloride	190		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.44		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	480		100		mg/L	20		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-15

Lab Sample ID: 500-149809-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.026		0.010		mg/L	1		6010C	Total Recoverable
Arsenic	0.0083		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.048		0.0025		mg/L	1		6020A	Total Recoverable
Boron	2.3		0.50		mg/L	10		6020A	Total Recoverable
Calcium	200		0.20		mg/L	1		6020A	Total Recoverable
Molybdenum	0.033		0.0050		mg/L	1		6020A	Total Recoverable
Selenium	0.060		0.0025		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	1700		10		mg/L	1		SM 2540C	Total/NA
Chloride	200		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.48		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	520		130		mg/L	25		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-17

Lab Sample ID: 500-149809-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.019		0.010		mg/L	1		6010C	Total Recoverable
Arsenic	0.087		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.055		0.0025		mg/L	1		6020A	Total Recoverable
Boron	1.3		0.50		mg/L	10		6020A	Total Recoverable
Cadmium	0.00094		0.00050		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-17 (Continued)

Lab Sample ID: 500-149809-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Calcium	170		0.20		mg/L			1	6020A	Total Recoverable
Cobalt	0.0015		0.0010		mg/L			1	6020A	Total Recoverable
Molybdenum	0.084		0.0050		mg/L			1	6020A	Total Recoverable
Thallium	0.0023		0.0020		mg/L			1	6020A	Total Recoverable
Total Dissolved Solids	1600		10		mg/L			1	SM 2540C	Total/NA
Chloride	230		10		mg/L			5	SM 4500 Cl- E	Total/NA
Fluoride	0.60		0.10		mg/L			1	SM 4500 F C	Total/NA
Sulfate	620		250		mg/L			50	SM 4500 SO4 E	Total/NA

Client Sample ID: MW-18

Lab Sample ID: 500-149809-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Lithium	0.013		0.010		mg/L			1	6010C	Total Recoverable
Barium	0.12		0.0025		mg/L			1	6020A	Total Recoverable
Boron	0.58		0.050		mg/L			1	6020A	Total Recoverable
Calcium	120		0.20		mg/L			1	6020A	Total Recoverable
Molybdenum	0.0052		0.0050		mg/L			1	6020A	Total Recoverable
Total Dissolved Solids	1100		10		mg/L			1	SM 2540C	Total/NA
Chloride	230		10		mg/L			5	SM 4500 Cl- E	Total/NA
Fluoride	0.57		0.10		mg/L			1	SM 4500 F C	Total/NA
Sulfate	270		50		mg/L			10	SM 4500 SO4 E	Total/NA

Client Sample ID: MW-19

Lab Sample ID: 500-149809-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	0.078		0.0025		mg/L			1	6020A	Total Recoverable
Boron	3.8		1.0		mg/L			20	6020A	Total Recoverable
Calcium	100		0.20		mg/L			1	6020A	Total Recoverable
Molybdenum	0.032		0.0050		mg/L			1	6020A	Total Recoverable
Selenium	0.0052		0.0025		mg/L			1	6020A	Total Recoverable
Total Dissolved Solids	720		10		mg/L			1	SM 2540C	Total/NA
Chloride	37		2.0		mg/L			1	SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10		mg/L			1	SM 4500 F C	Total/NA
Sulfate	170		50		mg/L			10	SM 4500 SO4 E	Total/NA

Client Sample ID: Duplicate

Lab Sample ID: 500-149809-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	0.0014		0.0010		mg/L			1	6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: Duplicate (Continued)

Lab Sample ID: 500-149809-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.067		0.0025		mg/L	1		6020A	Total Recoverable
Boron	1.6		0.50		mg/L	10		6020A	Total Recoverable
Calcium	91		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	560		10		mg/L	1		SM 2540C	Total/NA
Chloride	55		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	70		20		mg/L	4		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

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

TestAmerica Job ID: 500-149809-1

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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI
7470A	Preparation, Mercury	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 = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

TestAmerica Job ID: 500-149809-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-149809-1	MW-01	Water	08/08/18 09:49	08/10/18 16:50
500-149809-2	MW-02	Water	08/07/18 09:30	08/10/18 16:50
500-149809-3	MW-03	Water	08/07/18 10:54	08/10/18 16:50
500-149809-4	MW-04	Water	08/07/18 12:27	08/10/18 16:50
500-149809-5	MW-05	Water	08/07/18 13:30	08/10/18 16:50
500-149809-6	MW-08	Water	08/08/18 11:11	08/10/18 16:50
500-149809-7	MW-09	Water	08/08/18 12:46	08/10/18 16:50
500-149809-8	MW-10	Water	08/08/18 14:44	08/10/18 16:50
500-149809-9	MW-11	Water	08/09/18 14:03	08/10/18 16:50
500-149809-10	MW-12	Water	08/09/18 15:46	08/10/18 16:50
500-149809-11	MW-15	Water	08/09/18 11:42	08/10/18 16:50
500-149809-12	MW-17	Water	08/06/18 14:41	08/10/18 16:50
500-149809-13	MW-18	Water	08/06/18 15:46	08/10/18 16:50
500-149809-14	MW-19	Water	08/06/18 16:48	08/10/18 16:50
500-149809-15	Duplicate	Water	08/07/18 00:00	08/10/18 16:50

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-01

Date Collected: 08/08/18 09:49

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-1

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		08/11/18 12:28	08/13/18 14:08	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		08/11/18 12:28	08/13/18 14:01	1
Arsenic	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:01	1
Barium	0.051		0.0025		mg/L		08/11/18 12:28	08/13/18 14:01	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:01	1
Boron	0.14		0.050		mg/L		08/11/18 12:28	08/13/18 16:41	1
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:01	1
Calcium	86		0.20		mg/L		08/11/18 12:28	08/13/18 14:01	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:01	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:01	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:01	1
Molybdenum	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:01	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:01	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	430		10		mg/L			08/12/18 22:38	1
Chloride	48		2.0		mg/L			08/20/18 14:07	1
Fluoride	0.13		0.10		mg/L			08/13/18 18:53	1
Sulfate	43		10		mg/L			08/15/18 05:38	2

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-02

Date Collected: 08/07/18 09:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-2

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		08/11/18 12:28	08/13/18 14:12	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		08/11/18 12:28	08/13/18 14:04	1
Arsenic	0.0016		0.0010		mg/L		08/11/18 12:28	08/13/18 14:04	1
Barium	0.067		0.0025		mg/L		08/11/18 12:28	08/13/18 14:04	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:04	1
Boron	1.5		0.25		mg/L		08/11/18 12:28	08/13/18 16:45	5
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:04	1
Calcium	89		0.20		mg/L		08/11/18 12:28	08/13/18 14:04	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:04	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:04	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:04	1
Molybdenum	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:04	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:04	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:04	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	530		10		mg/L			08/12/18 22:43	1
Chloride	54		2.0		mg/L			08/20/18 14:08	1
Fluoride	0.15		0.10		mg/L			08/13/18 18:57	1
Sulfate	51		25		mg/L			08/15/18 05:39	5

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-03

Date Collected: 08/07/18 10:54

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-3

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		08/11/18 12:28	08/13/18 14:16	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		08/11/18 12:28	08/13/18 14:08	1
Arsenic	0.0015		0.0010		mg/L		08/11/18 12:28	08/13/18 14:08	1
Barium	0.067		0.0025		mg/L		08/11/18 12:28	08/13/18 14:08	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:08	1
Boron	0.40		0.050		mg/L		08/11/18 12:28	08/13/18 16:48	1
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:08	1
Calcium	82		0.20		mg/L		08/11/18 12:28	08/13/18 14:08	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:08	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:08	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:08	1
Molybdenum	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:08	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:08	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	500		10		mg/L			08/12/18 22:46	1
Chloride	67		10		mg/L			08/20/18 14:42	5
Fluoride	0.22		0.10		mg/L			08/13/18 19:00	1
Sulfate	49		25		mg/L			08/15/18 05:42	5

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-04

Date Collected: 08/07/18 12:27

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-4

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		08/11/18 12:28	08/13/18 14:20	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		08/11/18 12:28	08/13/18 14:12	1
Arsenic	0.0011		0.0010		mg/L		08/11/18 12:28	08/13/18 14:12	1
Barium	0.031		0.0025		mg/L		08/11/18 12:28	08/13/18 14:12	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:12	1
Boron	0.79		0.050		mg/L		08/11/18 12:28	08/13/18 16:52	1
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:12	1
Calcium	84		0.20		mg/L		08/11/18 12:28	08/13/18 14:12	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:12	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:12	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:12	1
Molybdenum	0.0060		0.0050		mg/L		08/11/18 12:28	08/13/18 14:12	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:12	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:12	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:39	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	510		10		mg/L			08/12/18 22:48	1
Chloride	71		2.0		mg/L			08/20/18 14:10	1
Fluoride	0.32		0.10		mg/L			08/13/18 19:03	1
Sulfate	49		25		mg/L			08/15/18 05:43	5

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-05

Date Collected: 08/07/18 13:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-5

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		08/11/18 12:28	08/13/18 14:23	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		08/11/18 12:28	08/13/18 14:16	1
Arsenic	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:16	1
Barium	0.054		0.0025		mg/L		08/11/18 12:28	08/13/18 14:16	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:16	1
Boron	0.49		0.050		mg/L		08/11/18 12:28	08/13/18 16:56	1
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:16	1
Calcium	110		0.20		mg/L		08/11/18 12:28	08/13/18 14:16	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:16	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:16	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:16	1
Molybdenum	0.0069		0.0050		mg/L		08/11/18 12:28	08/13/18 14:16	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:16	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:16	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	890		10		mg/L			08/12/18 22:51	1
Chloride	120		10		mg/L			08/20/18 14:11	5
Fluoride	0.32		0.10		mg/L			08/13/18 19:06	1
Sulfate	180		50		mg/L			08/15/18 05:44	10

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-08

Date Collected: 08/08/18 11:11

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-6

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		08/11/18 12:28	08/13/18 14:27	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		08/11/18 12:28	08/13/18 14:19	1
Arsenic	0.0055		0.0010		mg/L		08/11/18 12:28	08/13/18 14:19	1
Barium	0.071		0.0025		mg/L		08/11/18 12:28	08/13/18 14:19	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:19	1
Boron	1.1		0.25		mg/L		08/11/18 12:28	08/13/18 17:00	5
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:19	1
Calcium	140		0.20		mg/L		08/11/18 12:28	08/13/18 14:19	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:19	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:19	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:19	1
Molybdenum	0.019		0.0050		mg/L		08/11/18 12:28	08/13/18 14:19	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:19	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 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		08/14/18 11:53	08/15/18 10:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1200		10		mg/L			08/12/18 22:54	1
Chloride	270		10		mg/L			08/20/18 14:12	5
Fluoride	0.32		0.10		mg/L			08/13/18 19:10	1
Sulfate	190		50		mg/L			08/15/18 05:45	10

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-09

Date Collected: 08/08/18 12:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-7

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		08/11/18 12:28	08/13/18 14:32	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		08/11/18 12:28	08/13/18 14:34	1
Arsenic	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:34	1
Barium	0.037		0.0025		mg/L		08/11/18 12:28	08/13/18 14:34	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:34	1
Boron	4.3		1.0		mg/L		08/11/18 12:28	08/13/18 17:03	20
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:34	1
Calcium	86		0.20		mg/L		08/11/18 12:28	08/13/18 14:34	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:34	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:34	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:34	1
Molybdenum	0.032		0.0050		mg/L		08/11/18 12:28	08/13/18 14:34	1
Selenium	0.0078		0.0025		mg/L		08/11/18 12:28	08/13/18 14:34	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	690		10		mg/L			08/12/18 22:56	1
Chloride	39		2.0		mg/L			08/20/18 14:16	1
Fluoride	0.14		0.10		mg/L			08/13/18 19:13	1
Sulfate	180		50		mg/L			08/15/18 05:46	10

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-10

Date Collected: 08/08/18 14:44

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-8

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		08/11/18 12:28	08/13/18 14:36	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		08/11/18 12:28	08/13/18 14:38	1
Arsenic	0.0012		0.0010		mg/L		08/11/18 12:28	08/13/18 14:38	1
Barium	0.22		0.0025		mg/L		08/11/18 12:28	08/13/18 14:38	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:38	1
Boron	0.39		0.050		mg/L		08/11/18 12:28	08/13/18 17:07	1
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:38	1
Calcium	99		0.20		mg/L		08/11/18 12:28	08/13/18 14:38	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:38	1
Cobalt	0.014		0.0010		mg/L		08/11/18 12:28	08/13/18 14:38	1
Lead	0.00079		0.00050		mg/L		08/11/18 12:28	08/13/18 14:38	1
Molybdenum	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:38	1
Selenium	0.0062		0.0025		mg/L		08/11/18 12:28	08/13/18 14:38	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	550		10		mg/L			08/12/18 22:59	1
Chloride	58		2.0		mg/L			08/20/18 14:18	1
Fluoride	0.19		0.10		mg/L			08/23/18 16:03	1
Sulfate	60		20		mg/L			08/15/18 05:47	4

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-11

Date Collected: 08/09/18 14:03

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-9

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		08/11/18 12:28	08/13/18 14:40	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		08/11/18 12:28	08/13/18 14:42	1
Arsenic	0.68		0.0010		mg/L		08/11/18 12:28	08/13/18 14:42	1
Barium	3.0		0.0025		mg/L		08/11/18 12:28	08/13/18 14:42	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:42	1
Boron	1.4		0.50		mg/L		08/11/18 12:28	08/13/18 17:19	10
Cadmium	0.00082		0.00050		mg/L		08/11/18 12:28	08/13/18 14:42	1
Calcium	160		0.20		mg/L		08/11/18 12:28	08/13/18 14:42	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:42	1
Cobalt	0.0053		0.0010		mg/L		08/11/18 12:28	08/13/18 14:42	1
Lead	0.0012		0.00050		mg/L		08/11/18 12:28	08/13/18 14:42	1
Molybdenum	0.013		0.0050		mg/L		08/11/18 12:28	08/13/18 14:42	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:42	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 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		08/14/18 11:53	08/15/18 10:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1000		10		mg/L			08/12/18 23:01	1
Chloride	120		10		mg/L			08/20/18 14:19	5
Fluoride	0.65		0.10		mg/L			08/23/18 16:06	1
Sulfate	220		50		mg/L			08/15/18 05:48	10

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-12

Date Collected: 08/09/18 15:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-10

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		08/11/18 12:28	08/13/18 14:56	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		08/11/18 12:28	08/13/18 14:46	1
Arsenic	0.12		0.0010		mg/L		08/11/18 12:28	08/13/18 14:46	1
Barium	0.15		0.0025		mg/L		08/11/18 12:28	08/13/18 14:46	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:46	1
Boron	0.61		0.050		mg/L		08/11/18 12:28	08/13/18 17:22	1
Cadmium	0.00084		0.00050		mg/L		08/11/18 12:28	08/13/18 14:46	1
Calcium	120		0.20		mg/L		08/11/18 12:28	08/13/18 14:46	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:46	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:46	1
Lead	0.00072		0.00050		mg/L		08/11/18 12:28	08/13/18 14:46	1
Molybdenum	0.026		0.0050		mg/L		08/11/18 12:28	08/13/18 14:46	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:46	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:46	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:59	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1300		10		mg/L			08/12/18 23:04	1
Chloride	190		10		mg/L			08/20/18 14:20	5
Fluoride	0.44		0.10		mg/L			08/23/18 16:09	1
Sulfate	480		100		mg/L			08/15/18 05:49	20

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-15

Date Collected: 08/09/18 11:42

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-11

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		08/11/18 12:28	08/13/18 15:00	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		08/11/18 12:28	08/13/18 14:49	1
Arsenic	0.0083		0.0010		mg/L		08/11/18 12:28	08/13/18 14:49	1
Barium	0.048		0.0025		mg/L		08/11/18 12:28	08/13/18 14:49	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:49	1
Boron	2.3		0.50		mg/L		08/11/18 12:28	08/13/18 17:26	10
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:49	1
Calcium	200		0.20		mg/L		08/11/18 12:28	08/13/18 14:49	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:49	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:49	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:49	1
Molybdenum	0.033		0.0050		mg/L		08/11/18 12:28	08/13/18 14:49	1
Selenium	0.060		0.0025		mg/L		08/11/18 12:28	08/13/18 14:49	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 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		08/14/18 11:53	08/15/18 11:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1700		10		mg/L			08/12/18 23:06	1
Chloride	200		10		mg/L			08/20/18 14:20	5
Fluoride	0.48		0.10		mg/L			08/23/18 16:12	1
Sulfate	520		130		mg/L			08/15/18 05:50	25

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-17

Date Collected: 08/06/18 14:41

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-12

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		08/11/18 12:28	08/13/18 15:04	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		08/11/18 12:28	08/13/18 14:53	1
Arsenic	0.087		0.0010		mg/L		08/11/18 12:28	08/13/18 14:53	1
Barium	0.055		0.0025		mg/L		08/11/18 12:28	08/13/18 14:53	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:53	1
Boron	1.3		0.50		mg/L		08/11/18 12:28	08/13/18 17:30	10
Cadmium	0.00094		0.00050		mg/L		08/11/18 12:28	08/13/18 14:53	1
Calcium	170		0.20		mg/L		08/11/18 12:28	08/13/18 14:53	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:53	1
Cobalt	0.0015		0.0010		mg/L		08/11/18 12:28	08/13/18 14:53	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:53	1
Molybdenum	0.084		0.0050		mg/L		08/11/18 12:28	08/13/18 14:53	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:53	1
Thallium	0.0023		0.0020		mg/L		08/11/18 12:28	08/13/18 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		08/14/18 11:53	08/15/18 11:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1600		10		mg/L			08/12/18 23:09	1
Chloride	230		10		mg/L			08/20/18 14:21	5
Fluoride	0.60		0.10		mg/L			08/23/18 16:24	1
Sulfate	620		250		mg/L			08/15/18 05:51	50

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-18

Date Collected: 08/06/18 15:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-13

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		08/11/18 12:28	08/13/18 15:08	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		08/11/18 12:28	08/13/18 14:57	1
Arsenic	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:57	1
Barium	0.12		0.0025		mg/L		08/11/18 12:28	08/13/18 14:57	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 14:57	1
Boron	0.58		0.050		mg/L		08/11/18 12:28	08/13/18 17:34	1
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:57	1
Calcium	120		0.20		mg/L		08/11/18 12:28	08/13/18 14:57	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 14:57	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 14:57	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 14:57	1
Molybdenum	0.0052		0.0050		mg/L		08/11/18 12:28	08/13/18 14:57	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 14:57	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 14:57	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 11:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	1100		10		mg/L			08/12/18 23:12	1
Chloride	230		10		mg/L			08/20/18 14:21	5
Fluoride	0.57		0.10		mg/L			08/23/18 16:32	1
Sulfate	270		50		mg/L			08/22/18 05:36	10

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-19

Date Collected: 08/06/18 16:48

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-14

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		08/11/18 12:28	08/13/18 15:12	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		08/11/18 12:28	08/13/18 15:01	1
Arsenic	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 15:01	1
Barium	0.078		0.0025		mg/L		08/11/18 12:28	08/13/18 15:01	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 15:01	1
Boron	3.8		1.0		mg/L		08/11/18 12:28	08/13/18 17:38	20
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 15:01	1
Calcium	100		0.20		mg/L		08/11/18 12:28	08/13/18 15:01	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 15:01	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 15:01	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 15:01	1
Molybdenum	0.032		0.0050		mg/L		08/11/18 12:28	08/13/18 15:01	1
Selenium	0.0052		0.0025		mg/L		08/11/18 12:28	08/13/18 15:01	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 15:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 11:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	720		10		mg/L			08/12/18 23:14	1
Chloride	37		2.0		mg/L			08/20/18 14:43	1
Fluoride	0.13		0.10		mg/L			08/23/18 16:45	1
Sulfate	170		50		mg/L			08/22/18 05:37	10

Client Sample Results

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: Duplicate

Date Collected: 08/07/18 00:00

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-15

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		08/11/18 12:28	08/13/18 15:16	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		08/11/18 12:28	08/13/18 15:05	1
Arsenic	0.0014		0.0010		mg/L		08/11/18 12:28	08/13/18 15:05	1
Barium	0.067		0.0025		mg/L		08/11/18 12:28	08/13/18 15:05	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 15:05	1
Boron	1.6		0.50		mg/L		08/11/18 12:28	08/13/18 17:41	10
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 15:05	1
Calcium	91		0.20		mg/L		08/11/18 12:28	08/13/18 15:05	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 15:05	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 15:05	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 15:05	1
Molybdenum	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 15:05	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 15:05	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 15:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 11:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	560		10		mg/L			08/12/18 23:17	1
Chloride	55		2.0		mg/L			08/20/18 14:24	1
Fluoride	0.14		0.10		mg/L			08/23/18 16:49	1
Sulfate	70		20		mg/L			08/22/18 05:40	4

Definitions/Glossary

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

TestAmerica Job ID: 500-149809-1

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.
α	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: Powerton CCR

TestAmerica Job ID: 500-149809-1

Metals

Prep Batch: 445039

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total Recoverable	Water	3005A	
500-149809-2	MW-02	Total Recoverable	Water	3005A	
500-149809-3	MW-03	Total Recoverable	Water	3005A	
500-149809-4	MW-04	Total Recoverable	Water	3005A	
500-149809-5	MW-05	Total Recoverable	Water	3005A	
500-149809-6	MW-08	Total Recoverable	Water	3005A	
500-149809-7	MW-09	Total Recoverable	Water	3005A	
500-149809-8	MW-10	Total Recoverable	Water	3005A	
500-149809-9	MW-11	Total Recoverable	Water	3005A	
500-149809-10	MW-12	Total Recoverable	Water	3005A	
500-149809-11	MW-15	Total Recoverable	Water	3005A	
500-149809-12	MW-17	Total Recoverable	Water	3005A	
500-149809-13	MW-18	Total Recoverable	Water	3005A	
500-149809-14	MW-19	Total Recoverable	Water	3005A	
500-149809-15	Duplicate	Total Recoverable	Water	3005A	
MB 500-445039/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-445039/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 445195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total Recoverable	Water	6020A	445039
500-149809-2	MW-02	Total Recoverable	Water	6020A	445039
500-149809-3	MW-03	Total Recoverable	Water	6020A	445039
500-149809-4	MW-04	Total Recoverable	Water	6020A	445039
500-149809-5	MW-05	Total Recoverable	Water	6020A	445039
500-149809-6	MW-08	Total Recoverable	Water	6020A	445039
500-149809-7	MW-09	Total Recoverable	Water	6020A	445039
500-149809-8	MW-10	Total Recoverable	Water	6020A	445039
500-149809-9	MW-11	Total Recoverable	Water	6020A	445039
500-149809-10	MW-12	Total Recoverable	Water	6020A	445039
500-149809-11	MW-15	Total Recoverable	Water	6020A	445039
500-149809-12	MW-17	Total Recoverable	Water	6020A	445039
500-149809-13	MW-18	Total Recoverable	Water	6020A	445039
500-149809-14	MW-19	Total Recoverable	Water	6020A	445039
500-149809-15	Duplicate	Total Recoverable	Water	6020A	445039
MB 500-445039/1-A	Method Blank	Total Recoverable	Water	6020A	445039
LCS 500-445039/2-A	Lab Control Sample	Total Recoverable	Water	6020A	445039

Analysis Batch: 445254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total Recoverable	Water	6010C	445039
500-149809-2	MW-02	Total Recoverable	Water	6010C	445039
500-149809-3	MW-03	Total Recoverable	Water	6010C	445039
500-149809-4	MW-04	Total Recoverable	Water	6010C	445039
500-149809-5	MW-05	Total Recoverable	Water	6010C	445039
500-149809-6	MW-08	Total Recoverable	Water	6010C	445039
500-149809-7	MW-09	Total Recoverable	Water	6010C	445039
500-149809-8	MW-10	Total Recoverable	Water	6010C	445039
500-149809-9	MW-11	Total Recoverable	Water	6010C	445039
500-149809-10	MW-12	Total Recoverable	Water	6010C	445039
500-149809-11	MW-15	Total Recoverable	Water	6010C	445039

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-149809-1

Metals (Continued)

Analysis Batch: 445254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-12	MW-17	Total Recoverable	Water	6010C	445039
500-149809-13	MW-18	Total Recoverable	Water	6010C	445039
500-149809-14	MW-19	Total Recoverable	Water	6010C	445039
500-149809-15	Duplicate	Total Recoverable	Water	6010C	445039
MB 500-445039/1-A	Method Blank	Total Recoverable	Water	6010C	445039
LCS 500-445039/2-A	Lab Control Sample	Total Recoverable	Water	6010C	445039

Analysis Batch: 445305

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total Recoverable	Water	6020A	445039
500-149809-2	MW-02	Total Recoverable	Water	6020A	445039
500-149809-3	MW-03	Total Recoverable	Water	6020A	445039
500-149809-4	MW-04	Total Recoverable	Water	6020A	445039
500-149809-5	MW-05	Total Recoverable	Water	6020A	445039
500-149809-6	MW-08	Total Recoverable	Water	6020A	445039
500-149809-7	MW-09	Total Recoverable	Water	6020A	445039
500-149809-8	MW-10	Total Recoverable	Water	6020A	445039
500-149809-9	MW-11	Total Recoverable	Water	6020A	445039
500-149809-10	MW-12	Total Recoverable	Water	6020A	445039
500-149809-11	MW-15	Total Recoverable	Water	6020A	445039
500-149809-12	MW-17	Total Recoverable	Water	6020A	445039
500-149809-13	MW-18	Total Recoverable	Water	6020A	445039
500-149809-14	MW-19	Total Recoverable	Water	6020A	445039
500-149809-15	Duplicate	Total Recoverable	Water	6020A	445039
MB 500-445039/1-A	Method Blank	Total Recoverable	Water	6020A	445039
LCS 500-445039/2-A	Lab Control Sample	Total Recoverable	Water	6020A	445039

Prep Batch: 445342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	7470A	
500-149809-2	MW-02	Total/NA	Water	7470A	
500-149809-3	MW-03	Total/NA	Water	7470A	
500-149809-4	MW-04	Total/NA	Water	7470A	
500-149809-5	MW-05	Total/NA	Water	7470A	
500-149809-6	MW-08	Total/NA	Water	7470A	
500-149809-7	MW-09	Total/NA	Water	7470A	
500-149809-8	MW-10	Total/NA	Water	7470A	
500-149809-9	MW-11	Total/NA	Water	7470A	
500-149809-10	MW-12	Total/NA	Water	7470A	
500-149809-11	MW-15	Total/NA	Water	7470A	
500-149809-12	MW-17	Total/NA	Water	7470A	
500-149809-13	MW-18	Total/NA	Water	7470A	
500-149809-14	MW-19	Total/NA	Water	7470A	
500-149809-15	Duplicate	Total/NA	Water	7470A	
MB 500-445342/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-445342/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-149809-8 MS	MW-10	Total/NA	Water	7470A	
500-149809-8 MSD	MW-10	Total/NA	Water	7470A	
500-149809-8 DU	MW-10	Total/NA	Water	7470A	

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-149809-1

Metals (Continued)

Analysis Batch: 445532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	7470A	445342
500-149809-2	MW-02	Total/NA	Water	7470A	445342
500-149809-3	MW-03	Total/NA	Water	7470A	445342
500-149809-4	MW-04	Total/NA	Water	7470A	445342
500-149809-5	MW-05	Total/NA	Water	7470A	445342
500-149809-6	MW-08	Total/NA	Water	7470A	445342
500-149809-7	MW-09	Total/NA	Water	7470A	445342
500-149809-8	MW-10	Total/NA	Water	7470A	445342
500-149809-9	MW-11	Total/NA	Water	7470A	445342
500-149809-10	MW-12	Total/NA	Water	7470A	445342
500-149809-11	MW-15	Total/NA	Water	7470A	445342
500-149809-12	MW-17	Total/NA	Water	7470A	445342
500-149809-13	MW-18	Total/NA	Water	7470A	445342
500-149809-14	MW-19	Total/NA	Water	7470A	445342
500-149809-15	Duplicate	Total/NA	Water	7470A	445342
MB 500-445342/12-A	Method Blank	Total/NA	Water	7470A	445342
LCS 500-445342/13-A	Lab Control Sample	Total/NA	Water	7470A	445342
500-149809-8 MS	MW-10	Total/NA	Water	7470A	445342
500-149809-8 MSD	MW-10	Total/NA	Water	7470A	445342
500-149809-8 DU	MW-10	Total/NA	Water	7470A	445342

General Chemistry

Analysis Batch: 445061

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	SM 2540C	
500-149809-2	MW-02	Total/NA	Water	SM 2540C	
500-149809-3	MW-03	Total/NA	Water	SM 2540C	
500-149809-4	MW-04	Total/NA	Water	SM 2540C	
500-149809-5	MW-05	Total/NA	Water	SM 2540C	
500-149809-6	MW-08	Total/NA	Water	SM 2540C	
500-149809-7	MW-09	Total/NA	Water	SM 2540C	
500-149809-8	MW-10	Total/NA	Water	SM 2540C	
500-149809-9	MW-11	Total/NA	Water	SM 2540C	
500-149809-10	MW-12	Total/NA	Water	SM 2540C	
500-149809-11	MW-15	Total/NA	Water	SM 2540C	
500-149809-12	MW-17	Total/NA	Water	SM 2540C	
500-149809-13	MW-18	Total/NA	Water	SM 2540C	
500-149809-14	MW-19	Total/NA	Water	SM 2540C	
500-149809-15	Duplicate	Total/NA	Water	SM 2540C	
MB 500-445061/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-445061/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-149809-1 DU	MW-01	Total/NA	Water	SM 2540C	

Analysis Batch: 445284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	SM 4500 F C	
500-149809-2	MW-02	Total/NA	Water	SM 4500 F C	
500-149809-3	MW-03	Total/NA	Water	SM 4500 F C	
500-149809-4	MW-04	Total/NA	Water	SM 4500 F C	

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-149809-1

General Chemistry (Continued)

Analysis Batch: 445284 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-5	MW-05	Total/NA	Water	SM 4500 F C	
500-149809-6	MW-08	Total/NA	Water	SM 4500 F C	
500-149809-7	MW-09	Total/NA	Water	SM 4500 F C	
MB 500-445284/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-445284/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 445449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	SM 4500 SO4 E	
500-149809-2	MW-02	Total/NA	Water	SM 4500 SO4 E	
500-149809-3	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-149809-4	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-149809-5	MW-05	Total/NA	Water	SM 4500 SO4 E	
500-149809-6	MW-08	Total/NA	Water	SM 4500 SO4 E	
500-149809-7	MW-09	Total/NA	Water	SM 4500 SO4 E	
500-149809-8	MW-10	Total/NA	Water	SM 4500 SO4 E	
500-149809-9	MW-11	Total/NA	Water	SM 4500 SO4 E	
500-149809-10	MW-12	Total/NA	Water	SM 4500 SO4 E	
500-149809-11	MW-15	Total/NA	Water	SM 4500 SO4 E	
500-149809-12	MW-17	Total/NA	Water	SM 4500 SO4 E	
MB 500-445449/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-445449/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 446204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	SM 4500 Cl- E	
500-149809-2	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-149809-3	MW-03	Total/NA	Water	SM 4500 Cl- E	
500-149809-4	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-149809-5	MW-05	Total/NA	Water	SM 4500 Cl- E	
500-149809-6	MW-08	Total/NA	Water	SM 4500 Cl- E	
500-149809-7	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-149809-8	MW-10	Total/NA	Water	SM 4500 Cl- E	
500-149809-9	MW-11	Total/NA	Water	SM 4500 Cl- E	
500-149809-10	MW-12	Total/NA	Water	SM 4500 Cl- E	
500-149809-11	MW-15	Total/NA	Water	SM 4500 Cl- E	
500-149809-12	MW-17	Total/NA	Water	SM 4500 Cl- E	
500-149809-13	MW-18	Total/NA	Water	SM 4500 Cl- E	
500-149809-14	MW-19	Total/NA	Water	SM 4500 Cl- E	
500-149809-15	Duplicate	Total/NA	Water	SM 4500 Cl- E	
MB 500-446204/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-446204/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-149809-7 MS	MW-09	Total/NA	Water	SM 4500 Cl- E	
500-149809-7 MSD	MW-09	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 446448

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-13	MW-18	Total/NA	Water	SM 4500 SO4 E	
500-149809-14	MW-19	Total/NA	Water	SM 4500 SO4 E	
500-149809-15	Duplicate	Total/NA	Water	SM 4500 SO4 E	
MB 500-446448/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-149809-1

General Chemistry (Continued)

Analysis Batch: 446448 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-446448/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

Analysis Batch: 446883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-8	MW-10	Total/NA	Water	SM 4500 F C	
500-149809-9	MW-11	Total/NA	Water	SM 4500 F C	
500-149809-10	MW-12	Total/NA	Water	SM 4500 F C	
500-149809-11	MW-15	Total/NA	Water	SM 4500 F C	
500-149809-12	MW-17	Total/NA	Water	SM 4500 F C	
500-149809-13	MW-18	Total/NA	Water	SM 4500 F C	
500-149809-14	MW-19	Total/NA	Water	SM 4500 F C	
500-149809-15	Duplicate	Total/NA	Water	SM 4500 F C	
MB 500-446883/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-446883/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-446883/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-446883/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
500-149809-12 MS	MW-17	Total/NA	Water	SM 4500 F C	
500-149809-12 MSD	MW-17	Total/NA	Water	SM 4500 F C	

QC Sample Results

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

TestAmerica Job ID: 500-149809-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-445039/1-A
Matrix: Water
Analysis Batch: 445254

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 445039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		08/11/18 12:28	08/13/18 13:52	1

Lab Sample ID: LCS 500-445039/2-A
Matrix: Water
Analysis Batch: 445254

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 445039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.496		mg/L		99	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-445039/1-A
Matrix: Water
Analysis Batch: 445195

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 445039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		08/11/18 12:28	08/13/18 12:59	1
Arsenic	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 12:59	1
Barium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 12:59	1
Beryllium	<0.0010	^	0.0010		mg/L		08/11/18 12:28	08/13/18 12:59	1
Cadmium	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 12:59	1
Calcium	<0.20		0.20		mg/L		08/11/18 12:28	08/13/18 12:59	1
Chromium	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 12:59	1
Cobalt	<0.0010		0.0010		mg/L		08/11/18 12:28	08/13/18 12:59	1
Lead	<0.00050		0.00050		mg/L		08/11/18 12:28	08/13/18 12:59	1
Molybdenum	<0.0050		0.0050		mg/L		08/11/18 12:28	08/13/18 12:59	1
Selenium	<0.0025		0.0025		mg/L		08/11/18 12:28	08/13/18 12:59	1
Thallium	<0.0020		0.0020		mg/L		08/11/18 12:28	08/13/18 12:59	1

Lab Sample ID: MB 500-445039/1-A
Matrix: Water
Analysis Batch: 445305

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 445039

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050		mg/L		08/11/18 12:28	08/13/18 16:33	1

Lab Sample ID: LCS 500-445039/2-A
Matrix: Water
Analysis Batch: 445195

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 445039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.486		mg/L		97	80 - 120
Arsenic	0.100	0.0987		mg/L		99	80 - 120
Barium	2.00	2.09		mg/L		104	80 - 120
Beryllium	0.0500	0.0526	^	mg/L		105	80 - 120
Cadmium	0.0500	0.0499		mg/L		100	80 - 120
Calcium	10.0	9.26		mg/L		93	80 - 120
Chromium	0.200	0.199		mg/L		99	80 - 120
Cobalt	0.500	0.512		mg/L		102	80 - 120

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-149809-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-445039/2-A
Matrix: Water
Analysis Batch: 445195

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 445039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.100	0.104		mg/L		104	80 - 120
Molybdenum	1.00	0.962		mg/L		96	80 - 120
Selenium	0.100	0.0975		mg/L		97	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: LCS 500-445039/2-A
Matrix: Water
Analysis Batch: 445305

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 445039

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Boron	1.00	0.999		mg/L		100	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-445342/12-A
Matrix: Water
Analysis Batch: 445532

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 445342

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		08/14/18 11:53	08/15/18 10:27	1

Lab Sample ID: LCS 500-445342/13-A
Matrix: Water
Analysis Batch: 445532

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 445342

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00183		mg/L		91	80 - 120

Lab Sample ID: 500-149809-8 MS
Matrix: Water
Analysis Batch: 445532

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 445342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	<0.00020		0.00100	0.00104		mg/L		104	75 - 125

Lab Sample ID: 500-149809-8 MSD
Matrix: Water
Analysis Batch: 445532

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 445342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	<0.00020		0.00100	0.00110		mg/L		110	75 - 125	5	20

Lab Sample ID: 500-149809-8 DU
Matrix: Water
Analysis Batch: 445532

Client Sample ID: MW-10
Prep Type: Total/NA
Prep Batch: 445342

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Mercury	<0.00020		<0.00020		mg/L		NC	20

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-149809-1

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

Lab Sample ID: MB 500-445061/1

Matrix: Water

Analysis Batch: 445061

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			08/12/18 22:23	1

Lab Sample ID: LCS 500-445061/2

Matrix: Water

Analysis Batch: 445061

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: 500-149809-1 DU

Matrix: Water

Analysis Batch: 445061

Client Sample ID: MW-01

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	430		448		mg/L		3	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-446204/4

Matrix: Water

Analysis Batch: 446204

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			08/20/18 14:06	1

Lab Sample ID: LCS 500-446204/5

Matrix: Water

Analysis Batch: 446204

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	51.4		mg/L		103	85 - 115

Lab Sample ID: 500-149809-7 MS

Matrix: Water

Analysis Batch: 446204

Client Sample ID: MW-09

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	39		50.0	82.0		mg/L		86	75 - 125

Lab Sample ID: 500-149809-7 MSD

Matrix: Water

Analysis Batch: 446204

Client Sample ID: MW-09

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	39		50.0	83.5		mg/L		89	75 - 125	2	20

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-149809-1

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-445284/31
Matrix: Water
Analysis Batch: 445284

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	-		08/13/18 18:24	1

Lab Sample ID: LCS 500-445284/32
Matrix: Water
Analysis Batch: 445284

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: MB 500-446883/3
Matrix: Water
Analysis Batch: 446883

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	-		08/23/18 14:41	1

Lab Sample ID: MB 500-446883/31
Matrix: Water
Analysis Batch: 446883

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	-		08/23/18 16:19	1

Lab Sample ID: LCS 500-446883/32
Matrix: Water
Analysis Batch: 446883

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: LCS 500-446883/4
Matrix: Water
Analysis Batch: 446883

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: 500-149809-12 MS
Matrix: Water
Analysis Batch: 446883

Client Sample ID: MW-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.60		5.00	5.80		mg/L	-	104	75 - 125

Lab Sample ID: 500-149809-12 MSD
Matrix: Water
Analysis Batch: 446883

Client Sample ID: MW-17
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.60		5.00	5.69		mg/L	-	102	75 - 125	2	20

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-149809-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-445449/3

Matrix: Water

Analysis Batch: 445449

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			08/15/18 05:30	1

Lab Sample ID: LCS 500-445449/4

Matrix: Water

Analysis Batch: 445449

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	20.2		mg/L		101	80 - 120

Lab Sample ID: MB 500-446448/3

Matrix: Water

Analysis Batch: 446448

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			08/22/18 05:28	1

Lab Sample ID: LCS 500-446448/4

Matrix: Water

Analysis Batch: 446448

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	21.8		mg/L		109	80 - 120

Lab Chronicle

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-01

Date Collected: 08/08/18 09:49

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:08	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:01	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445305	08/13/18 16:41	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:30	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:38	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	446204	08/20/18 14:07	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	445284	08/13/18 18:53	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	445449		CLB	TAL CHI
						(Start) 08/15/18 05:38		
						(End) 08/15/18 05:39		

Client Sample ID: MW-02

Date Collected: 08/07/18 09:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:12	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:04	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	445305	08/13/18 16:45	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:36	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:43	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	446204	08/20/18 14:08	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	445284	08/13/18 18:57	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	445449		CLB	TAL CHI
						(Start) 08/15/18 05:39		
						(End) 08/15/18 05:40		

Client Sample ID: MW-03

Date Collected: 08/07/18 10:54

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:16	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-03

Date Collected: 08/07/18 10:54

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:08	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445305	08/13/18 16:48	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:38	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:46	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	446204	08/20/18 14:42	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	445284	08/13/18 19:00	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	445449		CLB	TAL CHI
						(Start) 08/15/18 05:42		
						(End) 08/15/18 05:43		

Client Sample ID: MW-04

Date Collected: 08/07/18 12:27

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:20	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:12	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445305	08/13/18 16:52	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:39	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:48	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		1	446204	08/20/18 14:10	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	445284	08/13/18 19:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		5	445449		CLB	TAL CHI
						(Start) 08/15/18 05:43		
						(End) 08/15/18 05:44		

Client Sample ID: MW-05

Date Collected: 08/07/18 13:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:23	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:16	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445305	08/13/18 16:56	FXG	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-05

Date Collected: 08/07/18 13:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:41	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:51	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	446204	08/20/18 14:11	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	445284	08/13/18 19:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	445449		CLB	TAL CHI
					(Start)	08/15/18 05:44		
					(End)	08/15/18 05:45		

Client Sample ID: MW-08

Date Collected: 08/08/18 11:11

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:27	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:19	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		5	445305	08/13/18 17:00	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:43	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:54	CLB	TAL CHI
Total/NA	Analysis	SM 4500 CI- E		5	446204	08/20/18 14:12	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	445284	08/13/18 19:10	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	445449		CLB	TAL CHI
					(Start)	08/15/18 05:45		
					(End)	08/15/18 05:46		

Client Sample ID: MW-09

Date Collected: 08/08/18 12:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:32	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:34	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	445305	08/13/18 17:03	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:44	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:56	CLB	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-09

Date Collected: 08/08/18 12:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	446204	08/20/18 14:16	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	445284	08/13/18 19:13	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	445449	08/15/18 05:46 (Start) 08/15/18 05:47 (End)	CLB	TAL CHI

Client Sample ID: MW-10

Date Collected: 08/08/18 14:44

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:36	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:38	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445305	08/13/18 17:07	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:46	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 22:59	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	446204	08/20/18 14:18	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:03	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	445449	08/15/18 05:47 (Start) 08/15/18 05:48 (End)	CLB	TAL CHI

Client Sample ID: MW-11

Date Collected: 08/09/18 14:03

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:40	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:42	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	445305	08/13/18 17:19	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:57	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 23:01	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	446204	08/20/18 14:19	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:06	EAT	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-11

Date Collected: 08/09/18 14:03

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-9

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	445449	08/15/18 05:48 (Start) 08/15/18 05:48 (End) 08/15/18 05:49	CLB	TAL CHI

Client Sample ID: MW-12

Date Collected: 08/09/18 15:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 14:56	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:46	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445305	08/13/18 17:22	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 10:59	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 23:04	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	446204	08/20/18 14:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:09	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		20	445449	08/15/18 05:49 (Start) 08/15/18 05:49 (End) 08/15/18 05:50	CLB	TAL CHI

Client Sample ID: MW-15

Date Collected: 08/09/18 11:42

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 15:00	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:49	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	445305	08/13/18 17:26	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 11:00	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 23:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	446204	08/20/18 14:20	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:12	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		25	445449	08/15/18 05:50 (Start) 08/15/18 05:50 (End) 08/15/18 05:51	CLB	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-17

Date Collected: 08/06/18 14:41

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 15:04	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:53	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	445305	08/13/18 17:30	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 11:02	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 23:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	446204	08/20/18 14:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:24	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		50	445449		CLB	TAL CHI
						(Start) 08/15/18 05:51		
						(End) 08/15/18 05:52		

Client Sample ID: MW-18

Date Collected: 08/06/18 15:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 15:08	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 14:57	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445305	08/13/18 17:34	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 11:03	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 23:12	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		5	446204	08/20/18 14:21	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:32	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	446448		CLB	TAL CHI
						(Start) 08/22/18 05:36		
						(End) 08/22/18 05:37		

Client Sample ID: MW-19

Date Collected: 08/06/18 16:48

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 15:12	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-1

Client Sample ID: MW-19

Date Collected: 08/06/18 16:48

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Analysis	6020A		1	445195	08/13/18 15:01	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		20	445305	08/13/18 17:38	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 11:05	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 23:14	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	446204	08/20/18 14:43	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:45	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	446448		CLB	TAL CHI
						(Start) 08/22/18 05:37		
						(End) 08/22/18 05:38		

Client Sample ID: Duplicate

Date Collected: 08/07/18 00:00

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6010C		1	445254	08/13/18 15:16	EEN	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	445195	08/13/18 15:05	FXG	TAL CHI
Total Recoverable	Prep	3005A			445039	08/11/18 12:28	BDE	TAL CHI
Total Recoverable	Analysis	6020A		10	445305	08/13/18 17:41	FXG	TAL CHI
Total/NA	Prep	7470A			445342	08/14/18 11:53	MJG	TAL CHI
Total/NA	Analysis	7470A		1	445532	08/15/18 11:06	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	445061	08/12/18 23:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	446204	08/20/18 14:24	HMW	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	446883	08/23/18 16:49	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		4	446448		CLB	TAL CHI
						(Start) 08/22/18 05:40		
						(End) 08/22/18 05:41		

Laboratory References:

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

TestAmerica Chicago

Accreditation/Certification Summary

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

TestAmerica Job ID: 500-149809-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago

2417 Bond St.

University Park, IL 60484

708-534-5200

Fax: 708-534-5211

Report To:

Contact: Richard Gnat
Company: KPRG and Associates, Inc
Address: 14665 W. Lisbon Rd., Suite 2B
Brookfield, WI 53005
Phone: 262-781-0475
Email: richardg@kprginc.com

Bill To:

Contact:
Company:
Address:
Phone:
Email:
PO #:



500-149809 COC

Lab Lot # 500-149809

Package Sealed
Yes No
Samples Sealed
Yes No

Received on Ice
Yes No
Samples Intact
Yes No N/A

Temperature °C of Cooler
3.6, 3.7, 10.0, 5.2, 5.4

Within Hold Time
Yes No
Preserv. Indicated
Yes No N/A

pH Check OK
Yes No
Res. CL Check OK
Yes No N/A

Sample Labels and COC Agree
Yes No
COC not present

Sampler Name:			COMPANY:			# / Cont.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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RELINQUISHED BY: IJH	COMPANY: KPRG	DATE: 8-10-18	TIME: 16:50	RECEIVED BY: [Signature]	COMPANY: TA	DATE: 8/10/18	TIME: 16:50
RELINQUISHED BY: [Signature]	COMPANY: KPRG	DATE: 8-10-18	TIME: 16:50	RECEIVED BY: [Signature]	COMPANY: TA	DATE: 8/10/18	TIME: 16:50

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DL = Drum Liquid
DS = Drum Solid
L = Leachate
W = Wipe
O =

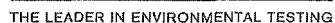
Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other

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. Cool to 4°
7. None

COMMENTS:

Date Received 8/10/18
Courier:
Hand Delivered ☒
Bill of Lading: 1 of 2

STL-8208 (0600)



Fax. 708-534-5211

Contact:	
Company:	
Address:	
Phone:	
Email	
PO #:	

Additional Analyses / Remarks

[illegible]

RELINQUISHED BY: IJH	COMPANY: KPRG	DATE: 8-10-18	TIME: 16:50	RECEIVED BY: <i>[Signature]</i>	COMPANY: TA	DATE: 8/10/18	TIME: 1650
RELINQUISHED BY:	COMPANY:	DATE:	TIME:	RECEIVED BY:	COMPANY:	DATE:	TIME:

COMMENTS:

Date
Received 08/10/18
Courier:
Hand Delivered ☒
Bill of Lading:

2 of 2

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-149809-1

Login Number: 149809

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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, 3.7, 5.2, 5.4, 6.0
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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: 500-149809-2

Client Project/Site: Powerton CCR

For:

KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 1A

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

9/26/2018 7:15:47 AM

Eric Lang, Manager of Project Management

(708)534-5200

eric.lang@testamericainc.com

LINKS

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results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: Powerton CCR

TestAmerica Job ID: 500-149809-2

Job ID: 500-149809-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-149809-2

Comments

No additional comments.

Receipt

The samples were received on 8/10/2018 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 3.6° C, 3.7° C, 5.2° C, 5.4° C and 6.0° C.

RAD

Method(s) PrecSep_0: Radium 228 Prep Batch 160-382531:

Sample aliquot 280-113076-1 reduced due to potential matrix interference. Sample was black, opaque, contained heavy sediment levels, and contained plant material.

Sample aliquots 500-149809-8 and 500-149809-12 reduced due to potential matrix interference. Samples contained heavy levels of black sediment.

Sample aliquot 500-149809-9 reduced due to potential matrix interference. Sample was yellow, murky, and contained sediment.

Sample aliquot 500-149809-10 reduced due to potential matrix interference. Sample contained brown floating debris.

Sample aliquot 500-149809-13 reduced due to potential matrix interference. Sample had a strong odor similar to that of sulfur.

MW-10 (500-149809-8), MW-11 (500-149809-9), MW-12 (500-149809-10), MW-17 (500-149809-12) and MW-18 (500-149809-13)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-382525:

Sample aliquot 280-113076-1 reduced due to potential matrix interference. Sample was black, opaque, contained heavy sediment levels, and contained plant material.

Sample aliquots 500-149809-8 and 500-149809-12 reduced due to potential matrix interference. Samples contained heavy levels of black sediment.

Sample aliquot 500-149809-9 reduced due to potential matrix interference. Sample was yellow, murky, and contained sediment.

Sample aliquot 500-149809-10 reduced due to potential matrix interference. Sample contained brown floating debris.

Sample aliquot 500-149809-13 reduced due to potential matrix interference. Sample had a strong odor similar to that of sulfur.

MW-10 (500-149809-8), MW-11 (500-149809-9), MW-12 (500-149809-10), MW-17 (500-149809-12) and MW-18 (500-149809-13)

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: Powerton CCR

TestAmerica Job ID: 500-149809-2

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: Powerton CCR

TestAmerica Job ID: 500-149809-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-149809-1	MW-01	Water	08/08/18 09:49	08/10/18 16:50
500-149809-2	MW-02	Water	08/07/18 09:30	08/10/18 16:50
500-149809-3	MW-03	Water	08/07/18 10:54	08/10/18 16:50
500-149809-4	MW-04	Water	08/07/18 12:27	08/10/18 16:50
500-149809-5	MW-05	Water	08/07/18 13:30	08/10/18 16:50
500-149809-6	MW-08	Water	08/08/18 11:11	08/10/18 16:50
500-149809-7	MW-09	Water	08/08/18 12:46	08/10/18 16:50
500-149809-8	MW-10	Water	08/08/18 14:44	08/10/18 16:50
500-149809-9	MW-11	Water	08/09/18 14:03	08/10/18 16:50
500-149809-10	MW-12	Water	08/09/18 15:46	08/10/18 16:50
500-149809-11	MW-15	Water	08/09/18 11:42	08/10/18 16:50
500-149809-12	MW-17	Water	08/06/18 14:41	08/10/18 16:50
500-149809-13	MW-18	Water	08/06/18 15:46	08/10/18 16:50
500-149809-14	MW-19	Water	08/06/18 16:48	08/10/18 16:50
500-149809-15	Duplicate	Water	08/07/18 00:00	08/10/18 16:50

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-01

Date Collected: 08/08/18 09:49

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-1

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	0.218		0.0846	0.0868	1.00	0.0848	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.361	U	0.246	0.249	1.00	0.384	pCi/L	08/15/18 10:00	08/22/18 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					08/15/18 10:00	08/22/18 09:16	1
Y Carrier	93.1		40 - 110					08/15/18 10:00	08/22/18 09:16	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	0.579		0.260	0.264	5.00	0.384	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-02

Date Collected: 08/07/18 09:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-2

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	0.293		0.0924	0.0961	1.00	0.0714	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.330	U	0.241	0.243	1.00	0.376	pCi/L	08/15/18 10:00	08/22/18 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					08/15/18 10:00	08/22/18 09:16	1
Y Carrier	85.6		40 - 110					08/15/18 10:00	08/22/18 09:16	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	0.622		0.258	0.261	5.00	0.376	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-03

Date Collected: 08/07/18 10:54

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-3

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	0.214		0.0803	0.0825	1.00	0.0767	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.0137	U	0.191	0.191	1.00	0.341	pCi/L	08/15/18 10:00	08/22/18 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/15/18 10:00	08/22/18 09:16	1
Y Carrier	89.3		40 - 110					08/15/18 10:00	08/22/18 09:16	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	0.227	U	0.207	0.208	5.00	0.341	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-04

Date Collected: 08/07/18 12:27

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-4

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	0.198		0.0801	0.0821	1.00	0.0789	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.0210	U	0.186	0.186	1.00	0.334	pCi/L	08/15/18 10:00	08/22/18 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110					08/15/18 10:00	08/22/18 09:16	1
Y Carrier	90.1		40 - 110					08/15/18 10:00	08/22/18 09:16	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	0.219	U	0.203	0.203	5.00	0.334	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-05

Date Collected: 08/07/18 13:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-5

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	0.220		0.0870	0.0892	1.00	0.0905	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.303	U	0.263	0.265	1.00	0.423	pCi/L	08/15/18 10:00	08/22/18 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					08/15/18 10:00	08/22/18 09:16	1
Y Carrier	86.4		40 - 110					08/15/18 10:00	08/22/18 09:16	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	0.523		0.277	0.280	5.00	0.423	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-08

Date Collected: 08/08/18 11:11

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-6

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	0.309		0.0962	0.100	1.00	0.0786	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.0582	U	0.234	0.234	1.00	0.410	pCi/L	08/15/18 10:00	08/22/18 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					08/15/18 10:00	08/22/18 09:16	1
Y Carrier	80.4		40 - 110					08/15/18 10:00	08/22/18 09:16	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	0.367	U	0.253	0.254	5.00	0.410	pCi/L		09/11/18 02:43	1

TestAmerica Chicago

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-09

Date Collected: 08/08/18 12:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-7

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	0.266		0.0889	0.0921	1.00	0.0739	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.173	U	0.207	0.208	1.00	0.342	pCi/L	08/15/18 10:00	08/22/18 09:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					08/15/18 10:00	08/22/18 09:16	1
Y Carrier	88.6		40 - 110					08/15/18 10:00	08/22/18 09:16	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	0.440		0.225	0.227	5.00	0.342	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-10

Date Collected: 08/08/18 14:44

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-8

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	0.557		0.149	0.157	1.00	0.121	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					08/15/18 08:57	09/07/18 05:35	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	-0.0123	U	0.306	0.306	1.00	0.551	pCi/L	08/15/18 10:00	08/22/18 09:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.0		40 - 110					08/15/18 10:00	08/22/18 09:17	1
Y Carrier	80.0		40 - 110					08/15/18 10:00	08/22/18 09:17	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	0.545	U	0.340	0.344	5.00	0.551	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-11

Date Collected: 08/09/18 14:03

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-9

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	0.940		0.187	0.205	1.00	0.108	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.536		0.332	0.336	1.00	0.507	pCi/L	08/15/18 10:00	08/22/18 09:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					08/15/18 10:00	08/22/18 09:17	1
Y Carrier	87.9		40 - 110					08/15/18 10:00	08/22/18 09:17	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	1.48		0.381	0.394	5.00	0.507	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-12

Date Collected: 08/09/18 15:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-10

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	0.456		0.135	0.141	1.00	0.105	pCi/L	08/15/18 08:57	09/07/18 05:35	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/15/18 08:57	09/07/18 05:35	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	0.331	0.332	1.00	0.546	pCi/L	08/15/18 10:00	08/22/18 09:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.2		40 - 110					08/15/18 10:00	08/22/18 09:17	1
Y Carrier	81.9		40 - 110					08/15/18 10:00	08/22/18 09:17	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	0.735		0.357	0.361	5.00	0.546	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-15

Date Collected: 08/09/18 11:42

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-11

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	0.246		0.0895	0.0922	1.00	0.0884	pCi/L	08/15/18 08:57	09/07/18 05:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					08/15/18 08:57	09/07/18 05:36	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	0.212	0.214	1.00	0.323	pCi/L	08/15/18 10:00	08/22/18 09:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					08/15/18 10:00	08/22/18 09:17	1
Y Carrier	85.2		40 - 110					08/15/18 10:00	08/22/18 09:17	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		0.230	0.233	5.00	0.323	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-17

Date Collected: 08/06/18 14:41

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-12

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	0.619		0.156	0.166	1.00	0.117	pCi/L	08/15/18 08:57	09/07/18 05:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					08/15/18 08:57	09/07/18 05:36	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	0.720		0.340	0.347	1.00	0.491	pCi/L	08/15/18 10:00	08/22/18 09:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					08/15/18 10:00	08/22/18 09:17	1
Y Carrier	84.1		40 - 110					08/15/18 10:00	08/22/18 09:17	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	1.34		0.374	0.385	5.00	0.491	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-18

Date Collected: 08/06/18 15:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-13

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	0.325		0.112	0.116	1.00	0.0992	pCi/L	08/15/18 08:57	09/07/18 05:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					08/15/18 08:57	09/07/18 05:37	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	0.695		0.365	0.371	1.00	0.541	pCi/L	08/15/18 10:00	08/22/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		40 - 110					08/15/18 10:00	08/22/18 09:18	1
Y Carrier	79.3		40 - 110					08/15/18 10:00	08/22/18 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		0.382	0.389	5.00	0.541	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-19

Date Collected: 08/06/18 16:48

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-14

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	0.268		0.0900	0.0932	1.00	0.0790	pCi/L	08/15/18 08:57	09/07/18 05:37	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					08/15/18 08:57	09/07/18 05:37	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	0.567		0.287	0.292	1.00	0.415	pCi/L	08/15/18 10:00	08/22/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.9		40 - 110					08/15/18 10:00	08/22/18 09:18	1
Y Carrier	74.0		40 - 110					08/15/18 10:00	08/22/18 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	0.835		0.301	0.307	5.00	0.415	pCi/L		09/11/18 02:43	1

Client Sample Results

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: Duplicate

Date Collected: 08/07/18 00:00

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-15

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	0.206		0.0779	0.0801	1.00	0.0620	pCi/L	08/15/18 08:57	09/07/18 05:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					08/15/18 08:57	09/07/18 05:38	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	0.204	U	0.282	0.283	1.00	0.471	pCi/L	08/15/18 10:00	08/22/18 09:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.9		40 - 110					08/15/18 10:00	08/22/18 09:18	1
Y Carrier	68.8		40 - 110					08/15/18 10:00	08/22/18 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	0.410	U	0.293	0.294	5.00	0.471	pCi/L		09/11/18 02:43	1

Definitions/Glossary

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

TestAmerica Job ID: 500-149809-2

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.
α	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: Powerton CCR

TestAmerica Job ID: 500-149809-2

Rad

Prep Batch: 382525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	PrecSep-21	
500-149809-2	MW-02	Total/NA	Water	PrecSep-21	
500-149809-3	MW-03	Total/NA	Water	PrecSep-21	
500-149809-4	MW-04	Total/NA	Water	PrecSep-21	
500-149809-5	MW-05	Total/NA	Water	PrecSep-21	
500-149809-6	MW-08	Total/NA	Water	PrecSep-21	
500-149809-7	MW-09	Total/NA	Water	PrecSep-21	
500-149809-8	MW-10	Total/NA	Water	PrecSep-21	
500-149809-9	MW-11	Total/NA	Water	PrecSep-21	
500-149809-10	MW-12	Total/NA	Water	PrecSep-21	
500-149809-11	MW-15	Total/NA	Water	PrecSep-21	
500-149809-12	MW-17	Total/NA	Water	PrecSep-21	
500-149809-13	MW-18	Total/NA	Water	PrecSep-21	
500-149809-14	MW-19	Total/NA	Water	PrecSep-21	
500-149809-15	Duplicate	Total/NA	Water	PrecSep-21	
MB 160-382525/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-382525/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-149809-15 DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 382531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-149809-1	MW-01	Total/NA	Water	PrecSep_0	
500-149809-2	MW-02	Total/NA	Water	PrecSep_0	
500-149809-3	MW-03	Total/NA	Water	PrecSep_0	
500-149809-4	MW-04	Total/NA	Water	PrecSep_0	
500-149809-5	MW-05	Total/NA	Water	PrecSep_0	
500-149809-6	MW-08	Total/NA	Water	PrecSep_0	
500-149809-7	MW-09	Total/NA	Water	PrecSep_0	
500-149809-8	MW-10	Total/NA	Water	PrecSep_0	
500-149809-9	MW-11	Total/NA	Water	PrecSep_0	
500-149809-10	MW-12	Total/NA	Water	PrecSep_0	
500-149809-11	MW-15	Total/NA	Water	PrecSep_0	
500-149809-12	MW-17	Total/NA	Water	PrecSep_0	
500-149809-13	MW-18	Total/NA	Water	PrecSep_0	
500-149809-14	MW-19	Total/NA	Water	PrecSep_0	
500-149809-15	Duplicate	Total/NA	Water	PrecSep_0	
MB 160-382531/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-382531/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-149809-15 DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 500-149809-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-382525/22-A

Matrix: Water

Analysis Batch: 387770

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 382525

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1537		0.0721	0.0734	1.00	0.0777	pCi/L	08/15/18 08:57	09/07/18 05:38	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/15/18 08:57	09/07/18 05:38	1

Lab Sample ID: LCS 160-382525/1-A

Matrix: Water

Analysis Batch: 387769

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 382525

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226		11.4	10.54		1.09	1.00	0.0673	pCi/L	93	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	97.3		40 - 110							

Lab Sample ID: 500-149809-15 DU

Matrix: Water

Analysis Batch: 387770

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 382525

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.206		0.2069		0.0824	1.00	0.0767	pCi/L	0	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	96.5		40 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-382531/22-A

Matrix: Water

Analysis Batch: 384512

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 382531

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.05685	U	0.219	0.219	1.00	0.386	pCi/L	08/15/18 10:00	08/22/18 09:18	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.0		40 - 110					08/15/18 10:00	08/22/18 09:18	1
Y Carrier	82.2		40 - 110					08/15/18 10:00	08/22/18 09:18	1

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-149809-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-382531/1-A

Matrix: Water

Analysis Batch: 384512

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 382531

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	11.1	11.55		1.28	1.00	0.359	pCi/L	104	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	97.3		40 - 110
Y Carrier	88.2		40 - 110

Lab Sample ID: 500-149809-15 DU

Matrix: Water

Analysis Batch: 384512

Client Sample ID: Duplicate

Prep Type: Total/NA

Prep Batch: 382531

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.204	U	0.07311	U	0.232	1.00	0.402	pCi/L	0.25	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	96.5		40 - 110
Y Carrier	85.2		40 - 110

Lab Chronicle

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-01

Date Collected: 08/08/18 09:49

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:16	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-02

Date Collected: 08/07/18 09:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:16	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-03

Date Collected: 08/07/18 10:54

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:16	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-04

Date Collected: 08/07/18 12:27

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:16	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-05

Date Collected: 08/07/18 13:30

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:16	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-08

Date Collected: 08/08/18 11:11

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:16	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-09

Date Collected: 08/08/18 12:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:16	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-10

Date Collected: 08/08/18 14:44

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:17	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-11

Lab Sample ID: 500-149809-9

Date Collected: 08/09/18 14:03

Matrix: Water

Date Received: 08/10/18 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:17	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-12

Lab Sample ID: 500-149809-10

Date Collected: 08/09/18 15:46

Matrix: Water

Date Received: 08/10/18 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:35	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:17	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-15

Lab Sample ID: 500-149809-11

Date Collected: 08/09/18 11:42

Matrix: Water

Date Received: 08/10/18 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:17	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-17

Lab Sample ID: 500-149809-12

Date Collected: 08/06/18 14:41

Matrix: Water

Date Received: 08/10/18 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387769	09/07/18 05:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:17	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-149809-2

Client Sample ID: MW-18

Date Collected: 08/06/18 15:46

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387770	09/07/18 05:37	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:18	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: MW-19

Date Collected: 08/06/18 16:48

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387770	09/07/18 05:37	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:18	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Client Sample ID: Duplicate

Date Collected: 08/07/18 00:00

Date Received: 08/10/18 16:50

Lab Sample ID: 500-149809-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			382525	08/15/18 08:57	JLC	TAL SL
Total/NA	Analysis	903.0		1	387770	09/07/18 05:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			382531	08/15/18 10:00	JLC	TAL SL
Total/NA	Analysis	904.0		1	384512	08/22/18 09:18	MAR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	388346	09/11/18 02:43	MAR	TAL SL

Laboratory References:

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 500-149809-2

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

Laboratory: TestAmerica St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	200023	11-30-18

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
903.0	PrecSep-21	Water	Radium-226
904.0	PrecSep_0	Water	Radium-228
Ra226_Ra228		Water	Combined Radium 226 + 228

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Chicago

2417 Bond St.

University Park, IL 60484

708-534-5200

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Report To:

Contact: Richard Gnat
Company: KPRG and Associates, Inc
Address: 14665 W. Lisbon Rd., Suite 2B
Brookfield, WI 53005
Phone: 262-781-0475
Email: richardg@kprginc.com

Bill To:

Contact:
Company:
Address:
Phone:
Email:
PO #:



500-149809 COC

Lab Lot # 500-149809

Package Sealed
Yes No
Samples Sealed
Yes No

Received on Ice
Yes No
Samples Intact
Yes No N/A

Temperature °C of Cooler
3.6, 3.7, 10.0, 5.2, 5.4

Within Hold Time
Yes No
Preserv. Indicated
Yes No N/A

pH Check OK
Yes No
Res. CL Check OK
Yes No N/A

Sample Labels and COC Agree
Yes No
COC not present

Sampler Name:			COMPANY:			# / Cont.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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RELINQUISHED BY: IJH	COMPANY: KPRG	DATE: 8-10-18	TIME: 16:50	RECEIVED BY: [Signature]	COMPANY: TA	DATE: 8/10/18	TIME: 16:50
RELINQUISHED BY: [Signature]	COMPANY: KPRG	DATE: 8-10-18	TIME: 16:50	RECEIVED BY: [Signature]	COMPANY: TA	DATE: 8/10/18	TIME: 16:50

Matrix Key
WW = Wastewater SE = Sediment
W = Water SO = Solid
S = Soil DL = Drum Liquid
SL = Sludge DS = Drum Solid
MS = Miscellaneous L = Leachate
OL = Oil W = Wipe
A = Air O = _____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other

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. Cool to 4°
7. None

COMMENTS:

Date Received 8/10/18
Courier:
Hand Delivered ☒
Bill of Lading:

1 of 2

STL-8208 (0600)

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler:		Lab PM:		Carrier Tracking No(s):		COC No:					
Client Contact:		Lang, Eric A.		Lang, Eric A.				500-108777.1					
Shipping/Receiving		E-Mail:		eric.lang@testamericainc.com		State of Origin:		Page:					
Company:		TestAmerica Laboratories, Inc.		Accreditations Required (See note):		NELAP - Illinois		Job #:					
Address:		13715 Rider Trail North,						500-149809-2					
City:		Earth City											
State, Zip:		MO, 63045											
Phone:		314-298-8566(Tel) 314-298-8757(Fax)											
Email:													
Project Name:		Powerlon CCR											
Site:		MWG - Powerton											
Due Date Requested:		9/10/2018											
TAT Requested (days):													
PO #:													
WO #:													
Project #:		50011612											
SSOW#:													
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Weater, Solid, Overwater, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228 GFC	Total Number of Containers		Special Instructions/Note:
MW-01 (500-149809-1)		8/8/18	09:49 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-02 (500-149809-2)		8/7/18	09:30 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-03 (500-149809-3)		8/7/18	10:54 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-04 (500-149809-4)		8/7/18	12:27 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-05 (500-149809-5)		8/7/18	13:30 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-08 (500-149809-6)		8/8/18	11:11 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-09 (500-149809-7)		8/8/18	12:46 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-10 (500-149809-8)		8/8/18	14:44 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-11 (500-149809-9)		8/9/18	14:03 Central	Water	Water			X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon 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/test/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

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

Primary Deliverable Rank: 2

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: 8/13/18 Time: 1600

Relinquished by: Date: 8/13/18 Time: 1600

Relinquished by: Date: Time:

Relinquished by: Date: Time:

Custody Seals Intact: Custody Seal No.:

Δ Yes Δ No

Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

Client Information (Sub Contract Lab)		Sampler: Lab PMT Lang, Eric A.		Carrier Tracking No(s):		COC No: 500-108777.2	
Client Contact: Shipping/Receiving		Phone:		State of Origin: Illinois		Page: Page 2 of 2	
Company: TestAmerica Laboratories, Inc.		E-Mail: eric.lang@testamericainc.com		Accreditations Required (See note): NELAP - Illinois		Job #: 500-149809-2	
Address: 13715 Rider Trail North,		Due Date Requested: 9/10/2018		Analysis Requested		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
City: Earth City		TAT Requested (days):		Total Number of Containers		Other:	
State Zip: MO, 63045		PO #:		903.0/PreSep_21 Standard Target List		Special Instructions/Note:	
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		WO #:		904.0/PreSep_0 Standard Target List		Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
Email:		Project #: 50011612		Perform MS/MSD (Yes or No)		Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
Site: MWG - Powerton		SSOW#:		Field Filtered Sample (Yes or No)		Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs	
MW-12 (500-149809-10)	8/9/18	15:46	Central	Water	X	X	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs
MW-15 (500-149809-11)	8/9/18	11:42	Central	Water	X	X	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs
MW-17 (500-149809-12)	8/6/18	14:41	Central	Water	X	X	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs
MW-18 (500-149809-13)	8/6/18	15:46	Central	Water	X	X	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs
MW-19 (500-149809-14)	8/6/18	16:48	Central	Water	X	X	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs
Duplicate (500-149809-15)	8/7/18	Central	Water	Water	X	X	Full QC needed (dups, etc) Batch QC must be performed (dup, spikes, etc) - no NCMs

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)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Time:	
Relinquished by: <i>M. Lang</i>		Date: 8/13/18	
Relinquished by:		Date: 1000	
Relinquished by:		Date: 1000	
Relinquished by:		Date: 1000	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:	
Received by: <i>Michael Heller</i>		Date/Time: 8-14-18 09:05	
Received by:		Date/Time:	
Received by:		Date/Time:	
Cooler Temperature(s) °C and Other Remarks:		Company: <i>TH SL</i>	
		Company:	
		Company:	

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-149809-2

Login Number: 149809

List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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, 3.7, 5.2, 5.4, 6.0
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 $<6\text{mm}$ (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: 500-149809-2

Login Number: 149809

List Number: 2

Creator: Hellm, Michael

List Source: TestAmerica St. Louis

List Creation: 08/14/18 11:55 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	16.0
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

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

TestAmerica Job ID: 500-149809-2

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)	
500-149809-1	MW-01	93.5	
500-149809-2	MW-02	94.1	
500-149809-3	MW-03	101	
500-149809-4	MW-04	93.2	
500-149809-5	MW-05	95.0	
500-149809-6	MW-08	95.0	
500-149809-7	MW-09	95.9	
500-149809-8	MW-10	95.0	
500-149809-9	MW-11	93.8	
500-149809-10	MW-12	91.2	
500-149809-11	MW-15	95.6	
500-149809-12	MW-17	97.3	
500-149809-13	MW-18	95.6	
500-149809-14	MW-19	92.9	
500-149809-15	Duplicate	90.9	
500-149809-15 DU	Duplicate	96.5	
LCS 160-382525/1-A	Lab Control Sample	97.3	
MB 160-382525/22-A	Method Blank	90.0	
Tracer/Carrier Legend			
Ba Carrier = 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 Carrier (40-110)	Y Carrier (40-110)
500-149809-1	MW-01	93.5	93.1
500-149809-2	MW-02	94.1	85.6
500-149809-3	MW-03	101	89.3
500-149809-4	MW-04	93.2	90.1
500-149809-5	MW-05	95.0	86.4
500-149809-6	MW-08	95.0	80.4
500-149809-7	MW-09	95.9	88.6
500-149809-8	MW-10	95.0	80.0
500-149809-9	MW-11	93.8	87.9
500-149809-10	MW-12	91.2	81.9
500-149809-11	MW-15	95.6	85.2
500-149809-12	MW-17	97.3	84.1
500-149809-13	MW-18	95.6	79.3
500-149809-14	MW-19	92.9	74.0
500-149809-15	Duplicate	90.9	68.8
500-149809-15 DU	Duplicate	96.5	85.2
LCS 160-382531/1-A	Lab Control Sample	97.3	88.2
MB 160-382531/22-A	Method Blank	90.0	82.2
Tracer/Carrier Legend			
Ba Carrier = Ba Carrier			
Y Carrier = Y Carrier			

TestAmerica Chicago

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: 500-154226-1

Client Project/Site: Powerton CCR

For:

KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 1A

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

11/16/2018 2:18:26 PM

Eric Lang, Manager of Project Management

(708)534-5200

eric.lang@testamericainc.com

LINKS

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results through

TotalAccess

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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: Powerton CCR

TestAmerica Job ID: 500-154226-1

Job ID: 500-154226-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-154226-1

Comments

No additional comments.

Receipt

The samples were received on 11/2/2018 11:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° 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.

Detection Summary

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

TestAmerica Job ID: 500-154226-1

Client Sample ID: MW-02

Lab Sample ID: 500-154226-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0015		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.067		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.23		0.050		mg/L	1		6020A	Total Recoverable
Calcium	86		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	480		10		mg/L	1		SM 2540C	Total/NA
Chloride	43		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.17		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	34		10		mg/L	2		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-03

Lab Sample ID: 500-154226-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0014		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.056		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.20		0.050		mg/L	1		6020A	Total Recoverable
Calcium	74		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	400		10		mg/L	1		SM 2540C	Total/NA
Chloride	44		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.25		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	26		5.0		mg/L	1		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-04

Lab Sample ID: 500-154226-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.049		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.54		0.050		mg/L	1		6020A	Total Recoverable
Calcium	100		0.20		mg/L	1		6020A	Total Recoverable
Total Dissolved Solids	690		10		mg/L	1		SM 2540C	Total/NA
Chloride	80		10		mg/L	5		SM 4500 Cl- E	Total/NA
Fluoride	0.24		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	91		50		mg/L	10		SM 4500 SO4 E	Total/NA

Client Sample ID: MW-10

Lab Sample ID: 500-154226-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.017		0.010		mg/L	1		6010C	Total Recoverable
Arsenic	0.011		0.0010		mg/L	1		6020A	Total Recoverable
Barium	0.41		0.0025		mg/L	1		6020A	Total Recoverable
Boron	0.34		0.050		mg/L	1		6020A	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Detection Summary

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

TestAmerica Job ID: 500-154226-1

Client Sample ID: MW-10 (Continued)

Lab Sample ID: 500-154226-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.00084		0.00050		mg/L	1		6020A	Total
Calcium	110		0.20		mg/L	1		6020A	Recoverable
Chromium	0.024		0.0050		mg/L	1		6020A	Total
Cobalt	0.047		0.0010		mg/L	1		6020A	Recoverable
Lead	0.023		0.00050		mg/L	1		6020A	Total
Selenium	0.0046		0.0025		mg/L	1		6020A	Recoverable
Total Dissolved Solids	510		10		mg/L	1		SM 2540C	Total/NA
Chloride	49		2.0		mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.22		0.10		mg/L	1		SM 4500 F C	Total/NA
Sulfate	49		10		mg/L	2		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

Method Summary

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

TestAmerica Job ID: 500-154226-1

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
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI
7470A	Preparation, Mercury	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 = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

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

TestAmerica Job ID: 500-154226-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-154226-1	MW-02	Water	10/30/18 09:42	11/02/18 11:20
500-154226-2	MW-03	Water	10/30/18 11:08	11/02/18 11:20
500-154226-3	MW-04	Water	10/30/18 12:34	11/02/18 11:20
500-154226-4	MW-10	Water	10/30/18 14:23	11/02/18 11:20

Client Sample Results

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

TestAmerica Job ID: 500-154226-1

Client Sample ID: MW-02

Date Collected: 10/30/18 09:42

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-1

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		11/06/18 07:27	11/06/18 18:47	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		11/03/18 10:57	11/05/18 16:14	1
Arsenic	0.0015		0.0010		mg/L		11/03/18 10:57	11/05/18 16:14	1
Barium	0.067		0.0025		mg/L		11/03/18 10:57	11/05/18 16:14	1
Beryllium	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:14	1
Boron	0.23		0.050		mg/L		11/03/18 10:57	11/05/18 16:14	1
Cadmium	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:14	1
Calcium	86		0.20		mg/L		11/03/18 10:57	11/05/18 16:14	1
Chromium	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:14	1
Cobalt	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:14	1
Lead	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:14	1
Molybdenum	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:14	1
Selenium	<0.0025		0.0025		mg/L		11/03/18 10:57	11/05/18 16:14	1
Thallium	<0.0020		0.0020		mg/L		11/03/18 10:57	11/05/18 16:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/07/18 10:35	11/08/18 10:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	480		10		mg/L			11/05/18 00:49	1
Chloride	43		2.0		mg/L			11/09/18 19:06	1
Fluoride	0.17		0.10		mg/L			11/10/18 00:22	1
Sulfate	34		10		mg/L			11/15/18 12:56	2

Client Sample Results

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

TestAmerica Job ID: 500-154226-1

Client Sample ID: MW-03

Date Collected: 10/30/18 11:08

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-2

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		11/06/18 07:27	11/06/18 18:51	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		11/03/18 10:57	11/05/18 16:17	1
Arsenic	0.0014		0.0010		mg/L		11/03/18 10:57	11/05/18 16:17	1
Barium	0.056		0.0025		mg/L		11/03/18 10:57	11/05/18 16:17	1
Beryllium	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:17	1
Boron	0.20		0.050		mg/L		11/03/18 10:57	11/05/18 16:17	1
Cadmium	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:17	1
Calcium	74		0.20		mg/L		11/03/18 10:57	11/05/18 16:17	1
Chromium	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:17	1
Cobalt	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:17	1
Lead	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:17	1
Molybdenum	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:17	1
Selenium	<0.0025		0.0025		mg/L		11/03/18 10:57	11/05/18 16:17	1
Thallium	<0.0020		0.0020		mg/L		11/03/18 10:57	11/05/18 16:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/07/18 10:35	11/08/18 10:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	400		10		mg/L			11/05/18 00:51	1
Chloride	44		2.0		mg/L			11/09/18 19:06	1
Fluoride	0.25		0.10		mg/L			11/10/18 00:26	1
Sulfate	26		5.0		mg/L			11/12/18 15:24	1

Client Sample Results

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

TestAmerica Job ID: 500-154226-1

Client Sample ID: MW-04

Date Collected: 10/30/18 12:34

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-3

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		11/06/18 07:27	11/06/18 18:55	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		11/03/18 10:57	11/05/18 16:33	1
Arsenic	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:33	1
Barium	0.049		0.0025		mg/L		11/03/18 10:57	11/05/18 16:33	1
Beryllium	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:33	1
Boron	0.54		0.050		mg/L		11/03/18 10:57	11/05/18 16:33	1
Cadmium	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:33	1
Calcium	100		0.20		mg/L		11/03/18 10:57	11/05/18 16:33	1
Chromium	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:33	1
Cobalt	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:33	1
Lead	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:33	1
Molybdenum	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:33	1
Selenium	<0.0025		0.0025		mg/L		11/03/18 10:57	11/05/18 16:33	1
Thallium	<0.0020		0.0020		mg/L		11/03/18 10:57	11/05/18 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		11/07/18 10:35	11/08/18 10:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	690		10		mg/L			11/05/18 00:54	1
Chloride	80		10		mg/L			11/09/18 20:59	5
Fluoride	0.24		0.10		mg/L			11/10/18 00:29	1
Sulfate	91		50		mg/L			11/12/18 15:27	10

Client Sample Results

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

TestAmerica Job ID: 500-154226-1

Client Sample ID: MW-10

Date Collected: 10/30/18 14:23

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-4

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		11/06/18 07:27	11/06/18 18:59	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		11/03/18 10:57	11/05/18 16:37	1
Arsenic	0.011		0.0010		mg/L		11/03/18 10:57	11/05/18 16:37	1
Barium	0.41		0.0025		mg/L		11/03/18 10:57	11/05/18 16:37	1
Beryllium	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:37	1
Boron	0.34		0.050		mg/L		11/03/18 10:57	11/05/18 16:37	1
Cadmium	0.00084		0.00050		mg/L		11/03/18 10:57	11/05/18 16:37	1
Calcium	110		0.20		mg/L		11/03/18 10:57	11/05/18 16:37	1
Chromium	0.024		0.0050		mg/L		11/03/18 10:57	11/05/18 16:37	1
Cobalt	0.047		0.0010		mg/L		11/03/18 10:57	11/05/18 16:37	1
Lead	0.023		0.00050		mg/L		11/03/18 10:57	11/05/18 16:37	1
Molybdenum	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:37	1
Selenium	0.0046		0.0025		mg/L		11/03/18 10:57	11/05/18 16:37	1
Thallium	<0.0020		0.0020		mg/L		11/03/18 10:57	11/05/18 16:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/07/18 10:35	11/08/18 10:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	510		10		mg/L			11/05/18 00:57	1
Chloride	49		2.0		mg/L			11/09/18 20:27	1
Fluoride	0.22		0.10		mg/L			11/10/18 00:42	1
Sulfate	49		10		mg/L			11/12/18 15:28	2

Definitions/Glossary

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

TestAmerica Job ID: 500-154226-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Powerton CCR

TestAmerica Job ID: 500-154226-1

Metals

Prep Batch: 458314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total Recoverable	Water	3005A	
500-154226-2	MW-03	Total Recoverable	Water	3005A	
500-154226-3	MW-04	Total Recoverable	Water	3005A	
500-154226-4	MW-10	Total Recoverable	Water	3005A	
MB 500-458314/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-458314/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 458598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total Recoverable	Water	3005A	
500-154226-2	MW-03	Total Recoverable	Water	3005A	
500-154226-3	MW-04	Total Recoverable	Water	3005A	
500-154226-4	MW-10	Total Recoverable	Water	3005A	
MB 500-458598/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-458598/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 500-458598/3-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Analysis Batch: 458665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total Recoverable	Water	6020A	458314
500-154226-2	MW-03	Total Recoverable	Water	6020A	458314
500-154226-3	MW-04	Total Recoverable	Water	6020A	458314
500-154226-4	MW-10	Total Recoverable	Water	6020A	458314
MB 500-458314/1-A	Method Blank	Total Recoverable	Water	6020A	458314
LCS 500-458314/2-A	Lab Control Sample	Total Recoverable	Water	6020A	458314

Analysis Batch: 458826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total Recoverable	Water	6010C	458598
500-154226-2	MW-03	Total Recoverable	Water	6010C	458598
500-154226-3	MW-04	Total Recoverable	Water	6010C	458598
500-154226-4	MW-10	Total Recoverable	Water	6010C	458598
MB 500-458598/1-A	Method Blank	Total Recoverable	Water	6010C	458598
LCS 500-458598/2-A	Lab Control Sample	Total Recoverable	Water	6010C	458598
LCSD 500-458598/3-A	Lab Control Sample Dup	Total Recoverable	Water	6010C	458598

Prep Batch: 458906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	7470A	
500-154226-2	MW-03	Total/NA	Water	7470A	
500-154226-3	MW-04	Total/NA	Water	7470A	
500-154226-4	MW-10	Total/NA	Water	7470A	
MB 500-458906/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-458906/13-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 459122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	7470A	458906
500-154226-2	MW-03	Total/NA	Water	7470A	458906
500-154226-3	MW-04	Total/NA	Water	7470A	458906
500-154226-4	MW-10	Total/NA	Water	7470A	458906

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-154226-1

Metals (Continued)

Analysis Batch: 459122 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-458906/12-A	Method Blank	Total/NA	Water	7470A	458906
LCS 500-458906/13-A	Lab Control Sample	Total/NA	Water	7470A	458906

General Chemistry

Analysis Batch: 458404

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	SM 2540C	
500-154226-2	MW-03	Total/NA	Water	SM 2540C	
500-154226-3	MW-04	Total/NA	Water	SM 2540C	
500-154226-4	MW-10	Total/NA	Water	SM 2540C	
MB 500-458404/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-458404/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 459453

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	SM 4500 Cl- E	
500-154226-2	MW-03	Total/NA	Water	SM 4500 Cl- E	
MB 500-459453/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-459453/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 459467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-3	MW-04	Total/NA	Water	SM 4500 Cl- E	
500-154226-4	MW-10	Total/NA	Water	SM 4500 Cl- E	
MB 500-459467/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-459467/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 459516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	SM 4500 F C	
500-154226-2	MW-03	Total/NA	Water	SM 4500 F C	
500-154226-3	MW-04	Total/NA	Water	SM 4500 F C	
500-154226-4	MW-10	Total/NA	Water	SM 4500 F C	
MB 500-459516/3	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-459516/31	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-459516/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-459516/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

Analysis Batch: 459765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-2	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-154226-3	MW-04	Total/NA	Water	SM 4500 SO4 E	
500-154226-4	MW-10	Total/NA	Water	SM 4500 SO4 E	
MB 500-459765/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-459765/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
500-154226-2 MS	MW-03	Total/NA	Water	SM 4500 SO4 E	
500-154226-2 MSD	MW-03	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Chicago

QC Association Summary

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

TestAmerica Job ID: 500-154226-1

General Chemistry (Continued)

Analysis Batch: 460378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	SM 4500 SO4 E	
MB 500-460378/3	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 500-460378/4	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

QC Sample Results

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

TestAmerica Job ID: 500-154226-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-458598/1-A
Matrix: Water
Analysis Batch: 458826

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 458598

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.010		0.010		mg/L		11/06/18 07:27	11/06/18 18:30	1

Lab Sample ID: LCS 500-458598/2-A
Matrix: Water
Analysis Batch: 458826

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 458598

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lithium	0.500	0.535		mg/L		107	80 - 120

Lab Sample ID: LCSD 500-458598/3-A
Matrix: Water
Analysis Batch: 458826

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 458598

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Lithium	0.500	0.540		mg/L		108	80 - 120	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 500-458314/1-A
Matrix: Water
Analysis Batch: 458665

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 458314

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030		mg/L		11/03/18 10:57	11/05/18 16:02	1
Arsenic	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:02	1
Barium	<0.0025		0.0025		mg/L		11/03/18 10:57	11/05/18 16:02	1
Beryllium	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:02	1
Boron	<0.050		0.050		mg/L		11/03/18 10:57	11/05/18 16:02	1
Cadmium	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:02	1
Calcium	<0.20		0.20		mg/L		11/03/18 10:57	11/05/18 16:02	1
Chromium	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:02	1
Cobalt	<0.0010		0.0010		mg/L		11/03/18 10:57	11/05/18 16:02	1
Lead	<0.00050		0.00050		mg/L		11/03/18 10:57	11/05/18 16:02	1
Molybdenum	<0.0050		0.0050		mg/L		11/03/18 10:57	11/05/18 16:02	1
Selenium	<0.0025		0.0025		mg/L		11/03/18 10:57	11/05/18 16:02	1
Thallium	<0.0020		0.0020		mg/L		11/03/18 10:57	11/05/18 16:02	1

Lab Sample ID: LCS 500-458314/2-A
Matrix: Water
Analysis Batch: 458665

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 458314

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	0.103		mg/L		103	80 - 120
Barium	0.500	0.529		mg/L		106	80 - 120
Beryllium	0.0500	0.0500		mg/L		100	80 - 120
Boron	1.00	0.965		mg/L		97	80 - 120
Cadmium	0.0500	0.0523		mg/L		105	80 - 120
Calcium	10.0	9.34		mg/L		93	80 - 120

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-154226-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 500-458314/2-A
Matrix: Water
Analysis Batch: 458665

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 458314

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chromium	0.200	0.210		mg/L		105	80 - 120
Cobalt	0.500	0.523		mg/L		105	80 - 120
Lead	0.100	0.104		mg/L		104	80 - 120
Molybdenum	1.00	0.982		mg/L		98	80 - 120
Selenium	0.100	0.100		mg/L		100	80 - 120
Thallium	0.100	0.105		mg/L		105	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-458906/12-A
Matrix: Water
Analysis Batch: 459122

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458906

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020		mg/L		11/07/18 10:35	11/08/18 10:05	1

Lab Sample ID: LCS 500-458906/13-A
Matrix: Water
Analysis Batch: 459122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458906

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00188		mg/L		94	80 - 120

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

Lab Sample ID: MB 500-458404/1
Matrix: Water
Analysis Batch: 458404

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			11/05/18 00:08	1

Lab Sample ID: LCS 500-458404/2
Matrix: Water
Analysis Batch: 458404

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 500-459453/4
Matrix: Water
Analysis Batch: 459453

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			11/09/18 18:45	1

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-154226-1

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

Lab Sample ID: LCS 500-459453/5

Matrix: Water

Analysis Batch: 459453

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	49.2		mg/L		98	85 - 115

Lab Sample ID: MB 500-459467/4

Matrix: Water

Analysis Batch: 459467

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			11/09/18 20:08	1

Lab Sample ID: LCS 500-459467/5

Matrix: Water

Analysis Batch: 459467

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	49.7		mg/L		99	85 - 115

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-459516/3

Matrix: Water

Analysis Batch: 459516

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			11/09/18 22:59	1

Lab Sample ID: MB 500-459516/31

Matrix: Water

Analysis Batch: 459516

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			11/10/18 00:36	1

Lab Sample ID: LCS 500-459516/32

Matrix: Water

Analysis Batch: 459516

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: LCS 500-459516/4

Matrix: Water

Analysis Batch: 459516

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

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-154226-1

Method: SM 4500 SO4 E - Sulfate, Total

Lab Sample ID: MB 500-459765/3

Matrix: Water

Analysis Batch: 459765

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			11/12/18 15:21	1

Lab Sample ID: LCS 500-459765/4

Matrix: Water

Analysis Batch: 459765

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	18.4		mg/L		92	80 - 120

Lab Sample ID: 500-154226-2 MS

Matrix: Water

Analysis Batch: 459765

Client Sample ID: MW-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	26		40.0	63.3		mg/L		93	75 - 125

Lab Sample ID: 500-154226-2 MSD

Matrix: Water

Analysis Batch: 459765

Client Sample ID: MW-03

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	26		40.0	69.5		mg/L		108	75 - 125	9	20

Lab Sample ID: MB 500-460378/3

Matrix: Water

Analysis Batch: 460378

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			11/15/18 12:35	1

Lab Sample ID: LCS 500-460378/4

Matrix: Water

Analysis Batch: 460378

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	21.5		mg/L		107	80 - 120

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-154226-1

Client Sample ID: MW-02

Date Collected: 10/30/18 09:42

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			458598	11/06/18 07:27	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	458826	11/06/18 18:47	EEN	TAL CHI
Total Recoverable	Prep	3005A			458314	11/03/18 10:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	458665	11/05/18 16:14	FXG	TAL CHI
Total/NA	Prep	7470A			458906	11/07/18 10:35	MJG	TAL CHI
Total/NA	Analysis	7470A		1	459122	11/08/18 10:09	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	458404	11/05/18 00:49	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	459453	11/09/18 19:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	459516	11/10/18 00:22	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	460378		CLB	TAL CHI
					(Start)	11/15/18 12:56		
					(End)	11/15/18 12:57		

Client Sample ID: MW-03

Date Collected: 10/30/18 11:08

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			458598	11/06/18 07:27	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	458826	11/06/18 18:51	EEN	TAL CHI
Total Recoverable	Prep	3005A			458314	11/03/18 10:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	458665	11/05/18 16:17	FXG	TAL CHI
Total/NA	Prep	7470A			458906	11/07/18 10:35	MJG	TAL CHI
Total/NA	Analysis	7470A		1	459122	11/08/18 10:12	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	458404	11/05/18 00:51	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	459453	11/09/18 19:06	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	459516	11/10/18 00:26	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		1	459765		CLB	TAL CHI
					(Start)	11/12/18 15:24		
					(End)	11/12/18 15:25		

Client Sample ID: MW-04

Date Collected: 10/30/18 12:34

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			458598	11/06/18 07:27	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	458826	11/06/18 18:55	EEN	TAL CHI
Total Recoverable	Prep	3005A			458314	11/03/18 10:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	458665	11/05/18 16:33	FXG	TAL CHI
Total/NA	Prep	7470A			458906	11/07/18 10:35	MJG	TAL CHI
Total/NA	Analysis	7470A		1	459122	11/08/18 10:14	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	458404	11/05/18 00:54	CLB	TAL CHI

TestAmerica Chicago

Lab Chronicle

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

TestAmerica Job ID: 500-154226-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		5	459467	11/09/18 20:59	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	459516	11/10/18 00:29	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		10	459765		CLB	TAL CHI
					(Start)	11/12/18 15:27		
					(End)	11/12/18 15:28		

Client Sample ID: MW-10

Date Collected: 10/30/18 14:23

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			458598	11/06/18 07:27	SAH	TAL CHI
Total Recoverable	Analysis	6010C		1	458826	11/06/18 18:59	EEN	TAL CHI
Total Recoverable	Prep	3005A			458314	11/03/18 10:57	BDE	TAL CHI
Total Recoverable	Analysis	6020A		1	458665	11/05/18 16:37	FXG	TAL CHI
Total/NA	Prep	7470A			458906	11/07/18 10:35	MJG	TAL CHI
Total/NA	Analysis	7470A		1	459122	11/08/18 10:16	MJG	TAL CHI
Total/NA	Analysis	SM 2540C		1	458404	11/05/18 00:57	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	459467	11/09/18 20:27	EAT	TAL CHI
Total/NA	Analysis	SM 4500 F C		1	459516	11/10/18 00:42	EAT	TAL CHI
Total/NA	Analysis	SM 4500 SO4 E		2	459765		CLB	TAL CHI
					(Start)	11/12/18 15:28		
					(End)	11/12/18 15:29		

Laboratory References:

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

Accreditation/Certification Summary

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

TestAmerica Job ID: 500-154226-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

- 1
- 2
- 3
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- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Chain of Custody Record



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)				Lab PM:	Carrier Tracking No(s)	COC No:								
Client Contact:				Lang, Eric A.		500-112779.1								
Shipping/Receiving				E-Mail:	State of Origin:	Page:								
Company:				eric.lang@testamericainc.com	Illinois	Page 1 of 1								
TestAmerica Laboratories, Inc.				Accreditations Required (See note):										
Address:				NELAP - Illinois										
City:				Analysis Requested										
State, Zip:				Due Date Requested:										
Phone:				11/14/2018										
Email:				TAT Requested (days):										
Project Name:				PO #:										
Powertron CCR				WO #:										
Site:				Project #:										
MW/G - Powerton				50011612										
SSOW#:														
Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=water/solid, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 Standard Target List	904.0/PreSep_0 Standard Target List	Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:
MW-02 (500-154226-1)	10/30/18	09:42 Central	Water					X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-03 (500-154226-2)	10/30/18	11:08 Central	Water					X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-04 (500-154226-3)	10/30/18	12:34 Central	Water					X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
MW-10 (500-154226-4)	10/30/18	14:23 Central	Water					X	X	X	X		3	Full QC needed (dups, etc) Batch QC must be performed (dups, spikes, etc) - no NCMS
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our 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/test/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														
Deliverable Requested: I, II, III, IV, Other (specify)														
Primary Deliverable Rank: 2														
Date:														
Time:														
Empty Kit Relinquished by:														
Relinquished by: <i>Min Scott</i>														
Relinquished by:														
Relinquished by:														
Custody Seal No.:														
Custody Seal Intact: ☐ Yes ☐ No														
Cooler Temperature(s) °C and Other Remarks:														

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-154226-1

Login Number: 154226

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	1.8
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-154226-2

Client Project/Site: Powerton CCR

For:

KPRG and Associates, Inc.

14665 West Lisbon Road,

Suite 1A

Brookfield, Wisconsin 53005

Attn: Richard Gnat



Authorized for release by:

11/30/2018 1:52:52 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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Case Narrative

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

TestAmerica Job ID: 500-154226-2

Job ID: 500-154226-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-154226-2

Comments

No additional comments.

Receipt

The samples were received on 11/2/2018 11:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

RAD

Method(s) 903.0, 9315: Ra-226 Prep Batch 160-399572

The following sample has a barium recovery above the 110% QC limit; 500-154226-1 DU. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The original sample had a barium recovery of 101%, and the RER was 0.34, also demonstrating acceptable sample preparation and instrument performance. The data have been reported with this narrative. (500-154226-E-1-A DU)

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-399585

The following sample has a barium recovery above the 110% QC limit; 500-154226-1 DU. The LCS (laboratory control sample) has an acceptable spike recovery demonstrating acceptable sample preparation and instrument performance. The original sample had a barium recovery of 101%, and the RER was 0.33, also demonstrating acceptable sample preparation and instrument performance. The data have been reported with this narrative. (500-154226-E-1-B DU)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-399585:

The following samples were prepared at a reduced aliquot due to potential matrix interference. Sample aliquot 180-83599-1 had a strong odor. Sample aliquot 500-154226-4 was brown, opaque, and contained heavy sediment levels. MW-10 (500-154226-4)

Sample aliquot 240-103772-1 reduced due to limited sample volume.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-399585:

The barium carrier recovery is outside the upper control limit (110%) for the following sample: (500-154226-E-1 DU).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-399572:

The following samples were prepared at a reduced aliquot due to potential matrix interference. Sample aliquot 180-83599-1 had a strong odor. Sample aliquot 500-154226-4 was brown, opaque, and contained heavy sediment levels. MW-10 (500-154226-4)

Sample aliquot 240-103772-1 reduced due to limited sample volume.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-399572:

The barium carrier recovery is outside the upper control limit (110%) for the following sample: (500-154226-E-1 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: Powerton CCR

TestAmerica Job ID: 500-154226-2

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: Powerton CCR

TestAmerica Job ID: 500-154226-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-154226-1	MW-02	Water	10/30/18 09:42	11/02/18 11:20
500-154226-2	MW-03	Water	10/30/18 11:08	11/02/18 11:20
500-154226-3	MW-04	Water	10/30/18 12:34	11/02/18 11:20
500-154226-4	MW-10	Water	10/30/18 14:23	11/02/18 11:20

Client Sample Results

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

TestAmerica Job ID: 500-154226-2

Client Sample ID: MW-02

Date Collected: 10/30/18 09:42

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-1

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	0.392		0.155	0.159	1.00	0.148	pCi/L	11/06/18 10:06	11/28/18 14:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					11/06/18 10:06	11/28/18 14:12	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	0.171	U	0.209	0.210	1.00	0.346	pCi/L	11/06/18 11:06	11/26/18 11:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					11/06/18 11:06	11/26/18 11:18	1
Y Carrier	85.2		40 - 110					11/06/18 11:06	11/26/18 11:18	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	0.564		0.260	0.263	5.00	0.346	pCi/L		11/30/18 11:32	1

Client Sample Results

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

TestAmerica Job ID: 500-154226-2

Client Sample ID: MW-03

Date Collected: 10/30/18 11:08

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-2

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	0.303		0.161	0.163	1.00	0.195	pCi/L	11/06/18 10:06	11/28/18 08:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					11/06/18 10:06	11/28/18 08:00	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	0.0456	U	0.201	0.202	1.00	0.354	pCi/L	11/06/18 11:06	11/26/18 11:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.8		40 - 110					11/06/18 11:06	11/26/18 11:18	1
Y Carrier	87.1		40 - 110					11/06/18 11:06	11/26/18 11:18	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	0.348	U	0.258	0.260	5.00	0.354	pCi/L		11/30/18 11:32	1

Client Sample Results

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

TestAmerica Job ID: 500-154226-2

Client Sample ID: MW-04

Date Collected: 10/30/18 12:34

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-3

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	0.209		0.126	0.127	1.00	0.152	pCi/L	11/06/18 10:06	11/28/18 08:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					11/06/18 10:06	11/28/18 08:00	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	0.214	U	0.204	0.205	1.00	0.330	pCi/L	11/06/18 11:06	11/26/18 11:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					11/06/18 11:06	11/26/18 11:18	1
Y Carrier	83.7		40 - 110					11/06/18 11:06	11/26/18 11:18	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	0.423		0.240	0.241	5.00	0.330	pCi/L		11/30/18 11:32	1

Client Sample Results

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

TestAmerica Job ID: 500-154226-2

Client Sample ID: MW-10

Date Collected: 10/30/18 14:23

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-4

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	1.61		0.443	0.466	1.00	0.352	pCi/L	11/06/18 10:06	11/28/18 08:00	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					11/06/18 10:06	11/28/18 08:00	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	1.40		0.549	0.564	1.00	0.754	pCi/L	11/06/18 11:06	11/26/18 11:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					11/06/18 11:06	11/26/18 11:18	1
Y Carrier	73.6		40 - 110					11/06/18 11:06	11/26/18 11:18	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	3.00		0.705	0.732	5.00	0.754	pCi/L		11/30/18 11:32	1

Definitions/Glossary

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

TestAmerica Job ID: 500-154226-2

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.
X	Carrier is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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: Powerton CCR

TestAmerica Job ID: 500-154226-2

Rad

Prep Batch: 399572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	PrecSep-21	
500-154226-2	MW-03	Total/NA	Water	PrecSep-21	
500-154226-3	MW-04	Total/NA	Water	PrecSep-21	
500-154226-4	MW-10	Total/NA	Water	PrecSep-21	
MB 160-399572/19-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-399572/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-154226-1 DU	MW-02	Total/NA	Water	PrecSep-21	

Prep Batch: 399585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-154226-1	MW-02	Total/NA	Water	PrecSep_0	
500-154226-2	MW-03	Total/NA	Water	PrecSep_0	
500-154226-3	MW-04	Total/NA	Water	PrecSep_0	
500-154226-4	MW-10	Total/NA	Water	PrecSep_0	
MB 160-399585/19-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-399585/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-154226-1 DU	MW-02	Total/NA	Water	PrecSep_0	

QC Sample Results

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

TestAmerica Job ID: 500-154226-2

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-399572/19-A

Matrix: Water

Analysis Batch: 403078

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 399572

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.2344		0.129	0.131	1.00	0.151	pCi/L	11/06/18 10:06	11/28/18 08:00	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					11/06/18 10:06	11/28/18 08:00	1

Lab Sample ID: LCS 160-399572/1-A

Matrix: Water

Analysis Batch: 403059

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 399572

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226		11.4	10.76		1.23	1.00	0.160	pCi/L	95	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	94.7		40 - 110							

Lab Sample ID: 500-154226-1 DU

Matrix: Water

Analysis Batch: 403078

Client Sample ID: MW-02

Prep Type: Total/NA

Prep Batch: 399572

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.392		0.2933		0.130	1.00	0.120	pCi/L	0.34	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	112	X	40 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-399585/19-A

Matrix: Water

Analysis Batch: 402623

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 399585

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.05486	U	0.222	0.222	1.00	0.386	pCi/L	11/06/18 11:06	11/26/18 11:19	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					11/06/18 11:06	11/26/18 11:19	1
Y Carrier	84.9		40 - 110					11/06/18 11:06	11/26/18 11:19	1

TestAmerica Chicago

QC Sample Results

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

TestAmerica Job ID: 500-154226-2

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-399585/1-A

Matrix: Water

Analysis Batch: 402684

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 399585

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	9.18	10.17		1.16	1.00	0.379	pCi/L	111	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.7		40 - 110
Y Carrier	83.0		40 - 110

Lab Sample ID: 500-154226-1 DU

Matrix: Water

Analysis Batch: 402684

Client Sample ID: MW-02

Prep Type: Total/NA

Prep Batch: 399585

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.171	U	0.04699	U	0.165	1.00	0.289	pCi/L	0.33	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	112	X	40 - 110
Y Carrier	86.4		40 - 110

Lab Chronicle

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

TestAmerica Job ID: 500-154226-2

Client Sample ID: MW-02

Date Collected: 10/30/18 09:42

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			399572	11/06/18 10:06	JLC	TAL SL
Total/NA	Analysis	903.0		1	403078	11/28/18 14:12	KLS	TAL SL
Total/NA	Prep	PrecSep_0			399585	11/06/18 11:06	JLC	TAL SL
Total/NA	Analysis	904.0		1	402684	11/26/18 11:18	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	403608	11/30/18 11:32	RTM	TAL SL

Client Sample ID: MW-03

Date Collected: 10/30/18 11:08

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			399572	11/06/18 10:06	JLC	TAL SL
Total/NA	Analysis	903.0		1	403078	11/28/18 08:00	KLS	TAL SL
Total/NA	Prep	PrecSep_0			399585	11/06/18 11:06	JLC	TAL SL
Total/NA	Analysis	904.0		1	402623	11/26/18 11:18	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	403608	11/30/18 11:32	RTM	TAL SL

Client Sample ID: MW-04

Date Collected: 10/30/18 12:34

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			399572	11/06/18 10:06	JLC	TAL SL
Total/NA	Analysis	903.0		1	403078	11/28/18 08:00	KLS	TAL SL
Total/NA	Prep	PrecSep_0			399585	11/06/18 11:06	JLC	TAL SL
Total/NA	Analysis	904.0		1	402623	11/26/18 11:18	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	403608	11/30/18 11:32	RTM	TAL SL

Client Sample ID: MW-10

Date Collected: 10/30/18 14:23

Date Received: 11/02/18 11:20

Lab Sample ID: 500-154226-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			399572	11/06/18 10:06	JLC	TAL SL
Total/NA	Analysis	903.0		1	403078	11/28/18 08:00	KLS	TAL SL
Total/NA	Prep	PrecSep_0			399585	11/06/18 11:06	JLC	TAL SL
Total/NA	Analysis	904.0		1	402623	11/26/18 11:18	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	403608	11/30/18 11:32	RTM	TAL SL

Laboratory References:

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

TestAmerica Chicago

Accreditation/Certification Summary

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

TestAmerica Job ID: 500-154226-2

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	100201	04-30-19

Laboratory: TestAmerica St. Louis

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
Illinois	NELAP	5	200023	11-30-18 *

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
903.0	PrecSep-21	Water	Radium-226
904.0	PrecSep_0	Water	Radium-228
Ra226_Ra228		Water	Combined Radium 226 + 228

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Chicago

[illegible]

Login Sample Receipt Checklist

Client: KPRG and Associates, Inc.

Job Number: 500-154226-2

Login Number: 154226

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	1.8
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 $<6\text{mm}$ (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: 500-154226-2

Login Number: 154226

List Number: 2

Creator: Hellm, Michael

List Source: TestAmerica St. Louis

List Creation: 11/03/18 10:39 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	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?	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Tracer/Carrier Summary

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

TestAmerica Job ID: 500-154226-2

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)
500-154226-1	MW-02	101
500-154226-1 DU	MW-02	112 X
500-154226-2	MW-03	96.8
500-154226-3	MW-04	101
500-154226-4	MW-10	100
LCS 160-399572/1-A	Lab Control Sample	94.7
MB 160-399572/19-A	Method Blank	106

Tracer/Carrier Legend

Ba Carrier = 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 Carrier (40-110)	Y Carrier (40-110)
500-154226-1	MW-02	101	85.2
500-154226-1 DU	MW-02	112 X	86.4
500-154226-2	MW-03	96.8	87.1
500-154226-3	MW-04	101	83.7
500-154226-4	MW-10	100	73.6
LCS 160-399585/1-A	Lab Control Sample	94.7	83.0
MB 160-399585/19-A	Method Blank	106	84.9

Tracer/Carrier Legend

Ba Carrier = Ba Carrier

Y Carrier = Y Carrier