

**HYDROGEOLOGIC ASSESSMENT REPORT
WILL COUNTY GENERATING STATION
ROMEovILLE, ILLINOIS**

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PATRICK PROJECT No. 21053.070

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1.0 INTRODUCTION

1.1 Background

Pursuant to the request of the Illinois Environmental Protection Agency (Illinois EPA), this document presents the Hydrogeologic Assessment Report for the on-site ash pond areas at the Midwest Generation, LLC (MWG) Will County in Romeoville, Illinois. This hydrogeologic assessment was performed in accordance with the Hydrogeologic Assessment Plan, approved by the Illinois EPA, dated September 3, 2010.

As defined by the Hydrogeologic Assessment Plan, the purpose of this investigation was to: (i) evaluate the potential, if any, for migration of ash-related constituents from the on-site ash ponds and to conduct monitoring for groundwater constituents regulated by the Illinois Part 620 groundwater standards, as requested by the Illinois EPA; (ii) characterize the subsurface hydrogeology; and (iii) identify potable well use within 2,500 feet of the ash ponds. The results of this investigation are described in this Hydrogeologic Assessment Report.

1.2 Site Location and Description

The Will County facility (the Site) is located in Section 2, Township 36 North, Range 10 East, in the City of Romeoville, Will County, Illinois. Figure 1 provides a Site Location Map.

The Site includes four active ash ponds. The ponds are lined with 36" of geo-composite material; the total area of the four ash ponds is approximately 8 acres. Figure 2 shows the locations of the four ash ponds.

1.3 Regional Setting

The Site is located between the Chicago Sanitary and Ship Canal and the Des Plaines River east of the city of Romeoville. The surrounding land use consists of undeveloped land to the north, the Chicago Sanitary and Ship Canal to the east, a quarry to the south, and the Des Plaines River to the west.



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Patrick Engineering Inc. (Patrick) conducted a review of publically available geological information from the Illinois State Geological Survey website. Based upon water well logs from the area, the geology beneath the Site consists of approximately 1 to 5 feet of unconsolidated deposits or fill, underlain by Silurian Dolomite to approximately 140 feet below ground surface, underlain by the Maquoketa shale. The Maquoketa shale is generally considered to be an aquitard that separates the shallow groundwater in the unconsolidated units and the Silurian dolomite from the underlying aquifers.

Groundwater flow in the shallow aquifer should be largely controlled by the Des Plaines River and the Chicago Sanitary and Ship Canal with groundwater likely flowing towards either of the rivers during most periods of the year. Groundwater flow in the deeper aquifers is controlled by the regional hydraulic gradient in these aquifers, which is to the southeast. The Site lies within the Joliet Depression, which is a cone of depression of the groundwater surface caused by the large withdrawals of the groundwater from the deeper aquifers due to industrial and municipal use in the area.

2.0 HYDROGEOLOGIC ASSESSMENT METHODOLOGY

The following sections present the methodologies used to evaluate the potential for migration of ash-related constituents from the ash ponds and to monitor for all Part 620-regulated constituents, to characterize the subsurface hydrogeology, and to identify potable well use within 2,500 feet of the Site.

2.1 Evaluation of Ash-Related Constituents Migration Potential

The Illinois EPA requested that an evaluation of the potential for migration of ash-related constituents from the ash ponds and that monitoring for all Part 620-regulated constituents be performed in accordance with the groundwater standards included in 35 Illinois Administrative Code (IAC) Part 620, Subparts C and D. Accordingly, groundwater monitoring wells were installed at the Site in locations both upgradient and downgradient of the four ash ponds.

2.1.1 Installation of Groundwater Monitoring Wells

Patrick installed ten (10) groundwater monitoring wells spaced approximately 150 to 300 feet apart around the perimeter of the ash ponds. The well locations were selected so that both upgradient and downgradient wells were represented, based upon available data regarding the expected groundwater flow direction. The spacing of the well locations at the Site along the downgradient edge of the ash ponds was calculated so as to detect a groundwater plume emanating from a point source beneath the ash ponds. Figure 3 shows the location of the ten monitoring wells.

The well borings were advanced using hollow-stem augers to depths ranging from 10 to 20 feet below ground surface (bgs). Borings were terminated after the field geologist determined that the boring was installed approximately 10 feet past the first intersection of the groundwater table in order to ensure that a representative groundwater sample could be obtained. Upon termination of each boring, a 2-inch diameter, PVC well was installed in order to collect samples of the

groundwater in the uppermost aquifer. The monitoring wells were completed to approximately 3 feet above grade, with PVC casing, and were covered with a stick-up, steel well protector with a locking cap. Soil lithology was inspected and logged by an experienced geologist during the boring process. Boring logs with well construction information are included as Appendix A.

2.1.2 Initial Groundwater Sampling and Analytical Testing

The groundwater sampling event for the Site took place on December 13, 2010. The groundwater elevation in each of the ten wells was measured prior to sampling. Groundwater samples were collected from each well with a peristaltic pump, using established low-flow sampling techniques. Temperature, pH, and conductivity measurements were taken using a portable meter in all wells; refer to Table 1 for these field parameter results. All groundwater samples were filtered in the field using a disposable, 0.45µm, in-line filter to allow for the analytical testing of dissolved compounds. The samples were immediately placed on ice in a cooler and kept at a temperature of no higher than 4° F. The samples were transported to TestAmerica, an Illinois-EPA accredited analytical laboratory, in accordance with chain-of-custody procedures to maintain the integrity of the samples.

The analytical laboratory tested groundwater samples from each of the wells for the compounds listed in Table 2. Analytes tested include the inorganic compounds listed in 35 IAC 620.410(a), excluding both radium and the poly-aromatic hydrocarbons (PAHs) listed in 35 IAC 620.410(b).

2.2 Characterization of Subsurface Hydrogeology

The subsurface hydrogeology beneath the ash ponds was characterized by determining Site lithology and the groundwater flow patterns in the vicinity of the ash ponds as described below.

2.2.1 Site Lithology

The Site lithology was determined by logging soil samples collected from the soil borings created during the installation of the groundwater monitoring wells. The soil borings were

installed under the direction of an experienced geologist. Each boring was sampled at 2-foot intervals using a 2-inch O.D. split-spoon sampler (ASTM D 1586). Each soil sample was inspected and logged by the geologist during the boring process. Boring logs with well construction information are provided as Appendix A.

2.2.2 Topographic and Water Elevation Surveys

A survey crew measured both the top-of-casing and ground surface elevations of all installed monitoring wells and the groundwater elevations within each of the monitoring wells on December 13, 2010. The survey crew concurrently measured the water elevation in each of the ash ponds, the Chicago Sanitary and Ship Canal, and the Des Plaines River; Ash Pond 2 was inaccessible the day of the survey.

2.2.3 Hydraulic Testing of Selected Wells

Patrick conducted five *in situ* hydraulic conductivity tests on wells MW-1, MW-4, MW-6, MW-7, and MW-9 on December 22, 2010. The testing consisted of one rising-head and one falling-head slug test performed at each well. Using a data-logging pressure transducer, Patrick measured the rate of groundwater level recovery in the wells after either inserting a slug into, or removing a slug from, each monitoring well.

2.3 Identification of Potable Well Use

Natural Resource Technology, Inc. (NRT) has previously completed an investigation of potable water well use within 2,500 feet of the Will County ash ponds. MWG submitted the results of this investigation to the Illinois EPA by letter dated July 15, 2009. These results are summarized in Appendix B.

The following databases and sources of information were used in order to identify local community water sources and water well locations in the vicinity of the Site:

- Illinois State Geological Survey (ISGS) -Water Well Database Query;



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- Illinois State Water Survey (ISWS) Private Well Database and water well construction report request; and
- Illinois Division of Public Water Supply web-based Geographic System (GIS) files.

3.0 HYDROGEOLOGIC ASSESSMENT RESULTS

3.1 Evaluation of Ash-Related Constituents Migration Potential

The analytical laboratory results for the hydrogeologic assessment are presented in Table 2. Full laboratory data packages from TestAmerica are provided as Appendix C. Manganese, boron, sulfate, and total dissolved solids (TDS) were detected in one or more monitoring wells at concentrations exceeding the Part 620 Class I Groundwater Quality Standards. In some cases, the highest concentrations of a given compound were found in the upgradient wells. Antimony, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, silver, thallium, zinc, and nitrogen/nitrite were not detected in any of the groundwater samples.

A determination of the potential for the individual ash ponds to be contributing to the distribution of analytes in the underlying groundwater and the extent, if any, of such contribution cannot be made from the results of this single sampling event alone. To develop a true, statistically-significant upgradient background concentration for the various compounds will require a number of sequential sampling events over time. Based on a statistically developed background value, downgradient concentrations can be compared to the background value over time to determine the likelihood and extent of any constituent migration from the on-site ash ponds. A plan to develop such an analytical database through additional sampling is presented in the last section of this report.

3.2 Characterization of Subsurface Hydrogeology

The lithology of the Site is predominantly fine sand with fine to coarse gravel underlain by limestone bedrock at approximately 10 to 15 feet below ground surface. Refer to Figure 4 for a geologic cross-section of the Site.

The results of the topographic and water elevation surveys are presented in Table 3.

The uppermost groundwater unit at the Site is found at depths ranging from 8 to 11 feet bgs. The direction of groundwater flow appears to be variable; in the northern part of the ash pond area, groundwater appears to flow to the southeast, in the southern part of the ash pond area, groundwater appears to flow to the southwest. Patrick was unable to calculate a hydraulic gradient for the Site, due to the apparent complexity of the shallow flow system. The variability in the groundwater elevation data could be due to the fractured nature of the bedrock surface. The collected groundwater elevation data do not allow for a clear understanding of the potentiometric surface in the uppermost aquifer, therefore a groundwater elevation map is provided as Figure 5.

Patrick used the hydraulic testing data to calculate the hydraulic conductivity of the uppermost aquifer using the Bouwer and Rice method. Hydraulic conductivity calculations are provided in Appendix D. The hydraulic conductivity of Site soils ranged from 6.38×10^{-5} to 2.07×10^{-4} ft/second. The average hydraulic conductivity was 4.32×10^{-4} ft/second. Patrick was unable to calculate the groundwater velocity because a reliable hydraulic gradient could not be calculated (see previous paragraph).

3.3 Identification of Potable Well Use

As stated above, NRT has previously completed an investigation of potable water well use within 2,500 feet of the Site's ash ponds. MWG submitted the results of this investigation to the Illinois EPA by letter dated July 15, 2009. According to this letter, the only identified potable wells, with associated structures, are located between the Des Plaines River and the Chicago Sanitary and Ship Canal. These wells are more than 1,500 feet deep (see wells 8 and 9 in Appendix B.). Both of these wells are drilled more than 1,500 feet below ground surface and are screened below the Maquoketa shale, a significant aquitard separating shallower aquifers from the screened interval of the wells.



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4.0 LONG-TERM MONITORING PLAN

In order to properly assess the groundwater monitoring data collected in this single sampling event, MWG will conduct a quarterly groundwater sampling program in which the same monitoring wells described in this report will be sampled for the identical analyte list employed during this investigation. MWG proposes to begin this quarterly monitoring program in March 2011, and will submit the results of the sampling program to the Illinois EPA on an ongoing, quarterly basis. MWG proposes to continue this program until sufficient statistically-significant data is available to properly assess the groundwater data. If the quarterly sampling results continue to show non-detect results for certain of the analytes, as was the case in this single sampling event, MWG may propose to Illinois EPA that these analytes be eliminated from future sampling events.

Table I
GROUNDWATER FIELD PARAMETER DATA
 Will County Station, Romeoville, Illinois
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Groundwater Field Parameter Data - Will County Station					
Monitoring Well	Date	Time	Conductance (S/cm)	Temperature °C	pH
MW-01	12/13/2010	13:48	1.76	16.41	7.74
MW-01	12/13/2010	13:50	1.73	16.36	7.91
MW-01	12/13/2010	13:52	1.73	16.35	7.90
MW-01	12/13/2010	13:54	1.71	16.30	7.89
MW-01	12/13/2010	13:56	1.70	16.12	7.87
MW-01	12/13/2010	13:58	1.70	16.28	7.89
MW-02	12/13/2010	12:57	1.40	16.16	8.43
MW-02	12/13/2010	12:59	1.37	16.19	8.65
MW-02	12/13/2010	13:01	1.38	16.22	8.66
MW-02	12/13/2010	13:03	1.36	16.29	8.68
MW-02	12/13/2010	13:05	1.36	16.34	8.61
MW-02	12/13/2010	13:07	1.37	16.22	8.61
MW-02	12/13/2010	13:09	1.37	16.29	8.62
MW-03	12/13/2010	12:15	1.54	12.95	7.31
MW-03	12/13/2010	12:17	1.53	12.83	7.28
MW-03	12/13/2010	12:19	1.53	12.77	7.26
MW-03	12/13/2010	12:21	1.52	12.90	7.23
MW-03	12/13/2010	12:23	1.52	12.89	7.21
MW-03	12/13/2010	12:25	1.52	12.84	7.21
MW-04	12/13/2010	11:47	3.46	14.37	7.41
MW-04	12/13/2010	11:49	3.46	14.46	7.39
MW-04	12/13/2010	11:51	3.48	14.39	7.39
MW-04	12/13/2010	11:53	3.49	14.39	7.38
MW-04	12/13/2010	11:55	3.51	14.22	7.37
MW-05	12/13/2010	11:13	1.67	0.52	9.81
MW-05	12/13/2010	11:15	1.67	12.66	9.72
MW-05	12/13/2010	11:17	1.66	12.61	9.68
MW-05	12/13/2010	11:19	1.67	12.66	9.62
MW-05	12/13/2010	11:21	1.66	12.81	9.58
MW-05	12/13/2010	11:23	1.67	12.76	9.57
MW-05	12/13/2010	11:25	1.66	12.79	9.58
MW-06	12/31/2010	9:30	1.58	14.66	8.88
MW-06	12/13/2010	9:32	1.61	14.64	8.86
MW-06	12/13/2010	9:34	1.61	14.65	8.89
MW-06	12/13/2010	9:36	1.65	14.65	8.88

Table 1
GROUNDWATER FIELD PARAMETER DATA
 Will County Station, Romeoville, Illinois
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Groundwater Field Parameter Data - Will County Station					
Monitoring Well	Date	Time	Conductance (S/cm)	Temperature °C	pH
MW-06	12/13/2010	9:38	1.64	14.62	8.89
MW-06	12/13/2010	9:40	1.64	14.59	8.89
MW-07	12/13/2010	14:27	1.98	14.71	8.60
MW-07	12/13/2010	14:29	1.96	14.77	8.59
MW-07	12/13/2010	14:31	1.96	14.83	8.59
MW-07	12/13/2010	14:33	1.96	14.87	8.59
MW-07	12/13/2010	14:35	1.96	14.87	8.61
MW-07	12/13/2010	14:37	1.96	14.82	8.61
MW-07	12/13/2010	14:39	1.96	14.84	8.61
MW-08	12/13/2010	15:42	1.37	12.76	7.75
MW-08	12/13/2010	15:44	1.37	12.72	7.71
MW-08	12/13/2010	15:46	1.42	13.22	7.67
MW-08	12/13/2010	15:48	1.41	13.00	7.66
MW-08	12/13/2010	15:50	1.41	12.95	7.66
MW-08	12/13/2010	15:52	1.43	12.82	7.65
MW-09	12/13/2010	15:07	1.33	15.15	10.48
MW-09	12/13/2010	15:09	1.33	14.93	10.49
MW-09	12/13/2010	15:11	1.33	14.90	10.48
MW-09	12/13/2010	15:13	1.33	15.14	10.78
MW-09	12/13/2010	15:15	1.33	15.16	10.88
MW-09	12/13/2010	15:17	1.33	15.03	10.90
MW-09	12/13/2010	15:19	1.32	15.21	10.87
MW-09	12/13/2010	15:21	1.33	15.09	10.88
MW-10	12/13/2010	10:30	1.53	15.06	7.64
MW-10	12/13/2010	10:32	1.53	15.21	7.64
MW-10	12/13/2010	10:34	1.53	15.18	7.63
MW-10	12/13/2010	10:36	1.53	15.00	7.63
MW-10	12/13/2010	10:38	1.53	15.00	7.61
MW-10	12/13/2010	10:40	1.53	15.01	7.61

Notes:

* (S/cm) = Specific Conductivity measured in Seconds/Centimeters

Table 2
GROUNDWATER ANALYTICAL RESULTS
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	Sample Analysis Method	Groundwater Remediation Objective (mg/L)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
			mg/L						
Chemical Name		Class I	12/13/10	12/13/10	12/13/10	12/13/10	12/13/10	12/13/10	12/13/10
Antimony	Metals 6020	0.006	ND						
Arsenic	Metals 6020	0.05	ND	0.0052	0.002	0.0027	0.0066	0.0018	0.004
Barium	Metals 6020	2.0	0.05	0.061	0.084	0.068	0.051	0.05	0.045
Beryllium	Metals 6020	0.004	ND						
Cadmium	Metals 6020	0.005	ND						
Chromium	Metals 6020	0.1	ND						
Cobalt	Metals 6020	1.0	0.0011	ND	ND	0.0011	ND	ND	ND
Copper	Metals 6020	0.65	ND						
Cyanide	Dissolved 9014	0.2	ND						
Iron	Metals 6020	5.0	ND	ND	0.37	0.83	ND	ND	0.23
Lead	Metals 6020	0.0075	ND						
Manganese	Metals 6020	0.15	0.2	0.032	0.34	0.52	0.0079	0.073	0.12
Mercury	Mercury 7470A	0.002	ND						
Nickel	Metals 6020	0.1	0.0046	ND	0.0054	0.0048	ND	ND	0.0029
Selenium	Metals 6020	0.05	ND	ND	ND	ND	0.017	0.0062	ND
Silver	Metals 6020	0.05	ND						
Thallium	Metals 6020	0.002	ND						
Zinc	Metals 6020	5.0	ND						
Boron	Metals 6020	2	1.8	1.8	2.7	3.7	2.6	2.7	4.7
Sulfate	Dissolved 9038	400	530	430	330	1500	580	500	610
Chloride	Dissolved 9251	200	110	110	54	120	110	120	160
Nitrogen/Nitrate	Nitrogen By calc	10	ND	ND	ND	ND	0.27	ND	ND
Total Dissolved Solids	Dissolved 2540C	1200	1100	870	940	2500	1000	990	1300
Fluoride	Dissolved 4500 FC	4	0.71	0.62	0.5	0.52	0.41	0.85	0.96
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND						
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	ND	ND	ND	ND	0.27	ND	ND

Notes:

Class I Groundwater Standards from 35 IAC Part 620

Bold values show exceedences of 35 IAC Part 620

ND-non detect

mg/L = milligrams per liter

-Determination of the potential for the individual ash ponds to be contributing to the distribution of analytes in the underlying groundwater cannot be made from the results of this single sampling event alone. To develop a true, statistically-significant upgradient background concentration for the various compounds will require a number of sequential sampling events over time. After a statistically developed background value is available, the downgradient concentrations can be compared to this background value over time to determine the likelihood of contaminant migration from the on-site ash ponds. A plan to develop such an analytical database through additional sampling is discussed in the last section of this report.

Table 2
GROUNDWATER ANALYTICAL RESULTS
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Chemical Name	Sample Analysis Method	Groundwater Remediation Objective (mg/L)	MW-8	MW-9	MW-10
			mg/L	mg/L	mg/L
		Class I	12/13/10	12/13/10	12/13/10
Antimony	Metals 6020	0.006	ND	ND	ND
Arsenic	Metals 6020	0.05	0.0067	0.0059	0.0041
Barium	Metals 6020	2.0	0.069	0.025	0.098
Beryllium	Metals 6020	0.004	ND	ND	ND
Cadmium	Metals 6020	0.005	ND	ND	ND
Chromium	Metals 6020	0.1	ND	ND	ND
Cobalt	Metals 6020	1.0	ND	ND	ND
Copper	Metals 6020	0.65	ND	ND	ND
Cyanide	Dissolved 9014	0.2	ND	ND	ND
Iron	Metals 6020	5.0	0.48	ND	0.32
Lead	Metals 6020	0.0075	ND	ND	ND
Manganese	Metals 6020	0.15	0.33	ND	0.25
Mercury	Mercury 7470A	0.002	ND	ND	ND
Nickel	Metals 6020	0.1	ND	ND	ND
Selenium	Metals 6020	0.05	ND	0.0036	ND
Silver	Metals 6020	0.05	ND	ND	ND
Thallium	Metals 6020	0.002	ND	ND	ND
Zinc	Metals 6020	5.0	ND	ND	ND
Boron	Metals 6020	2	1.7	2.2	2.1
Sulfate	Dissolved 9038	400	440	410	370
Chloride	Dissolved 9251	200	93	100	92
Nitrogen/Nitrate	Nitrogen By calc	10	ND	ND	ND
Total Dissolved Solids	Dissolved 2540C	1200	930	800	990
Fluoride	Dissolved 4500 FC	4	0.61	0.33	0.66
Nitrogen/Nitrite	Dissolved 4500 NO2	NA	ND	ND	ND
Nitrogen/Nitrate/Nitrite	Dissolved 4500 NO3	NA	ND	0.44	ND

Notes:

Class I Groundwater Standards from 35 IAC Part 620

Bold values show exceedences of 35 IAC Part 620

ND-non detect

mg/L = milligrams per liter

-Determination of the potential for the individual ash ponds to be contributing to the distribution of analytes in the underlying groundwater cannot be made from the results of this single sampling event alone. To develop a true, statistically-significant upgradient background concentration for the various compounds will require a number of sequential sampling events over time. After a statistically developed background value is available, the downgradient concentrations can be compared to this background value over time to determine the likelihood of contaminant migration from the on-site ash ponds. A plan to develop such an analytical database through additional sampling is discussed in the last section of this report.

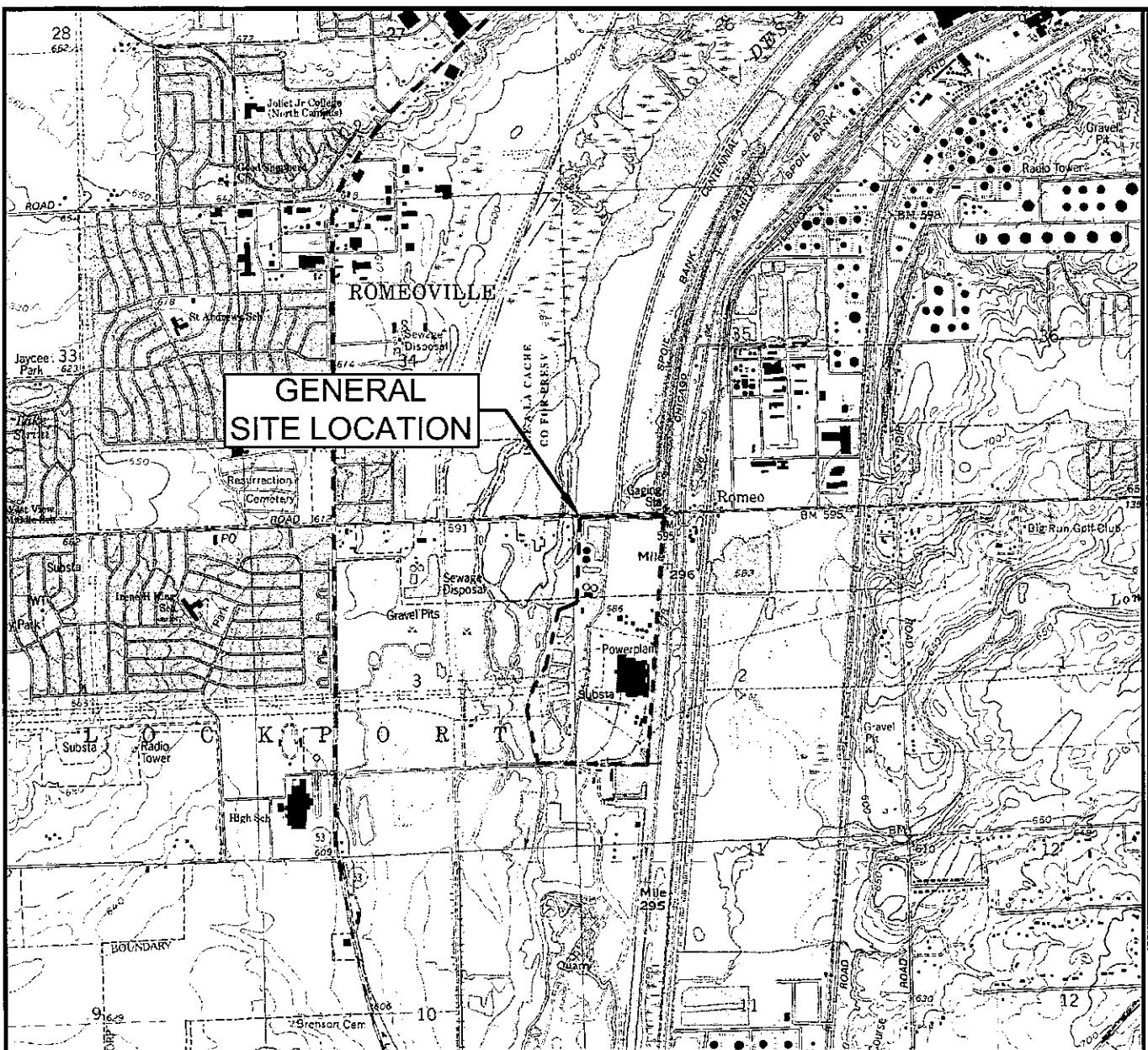
Table 3
WATER ELEVATION SURVEY DATA
 Will County Station, Romeoville, Illinois
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PATRICK ENGINEERING	Water Elevation (feet)	Depth to Water (feet bgs)	Lid Elevation (feet)	Ground Elevation (feet)	Top of Riser Elevation (feet)
MONITORING WELLS					
MW-1	583.591	9.36	593.405	589.809	592.951
MW-2	583.702	10.29	594.416	590.621	593.992
MW-3	583.586	9.92	594.054	590.503	593.506
MW-4	583.599	10.65	594.765	591.215	594.249
MW-5	583.331	9.54	593.344	589.602	592.871
MW-6	582.018	10.95	593.521	589.772	592.968
MW-7	585.350	7.53	593.389	589.550	592.880
MW-8	582.483	10.23	593.173	589.641	592.713
MW-9	583.380	9.46	593.328	589.756	592.840
MW-10	580.352	10.63	591.266	591.314	590.982
ASH PONDS					
AP-1	589.842	NS	NS	NS	NS
AP-2	585.802	NS	NS	NS	NS
AP-3	589.428	NS	NS	NS	NS
AP-4	NS	NS	NS	NS	NS
AP-5	581.991	NS	NS	NS	NS
AP-6	582.195	NS	NS	NS	NS
AP-7	581.843	NS	NS	NS	NS
AP-8	NS	NS	NS	NS	NS
AP-9	5.433	NS	NS	NS	NS
River					
DuPage River	580.541	NS	NS	NS	NS

*Survey data taken on 12/6/10

NS = not surveyed

bgs = below ground surface



NOTE:

THIS DRAWING WAS PREPARED USING ILLINOIS'
ROMEOVILLE (1993) AND JOLIET (1993) 7.5 MINUTE-SERIES
TOPOGRAPHIC QUADRANGLE MAP.

Date: FEB. 2011

Proj No.: 21053.070

App. By: RMF

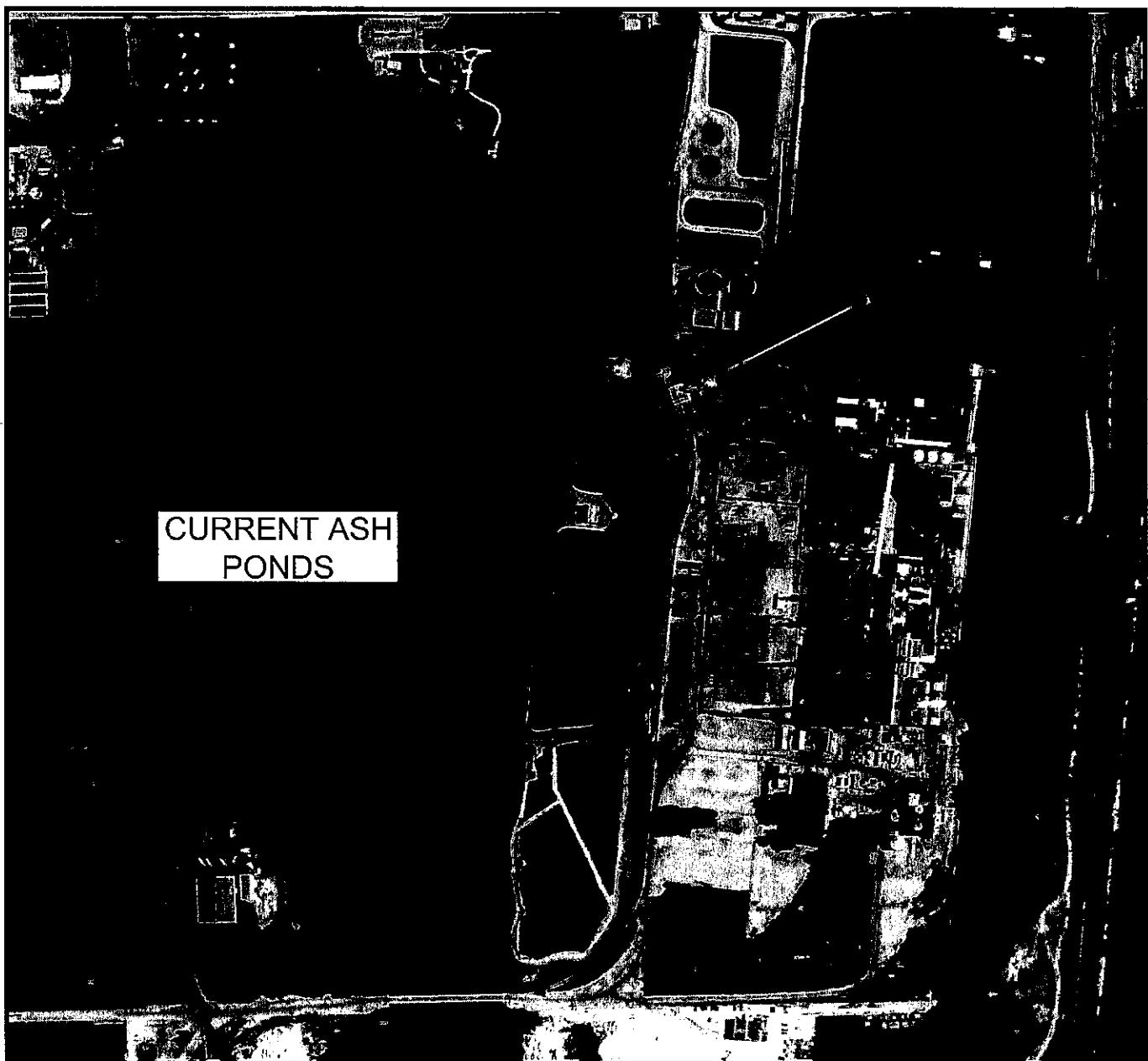
FIGURE 1
SITE LOCATION MAP
**WILL COUNTY STATION
ROMEOVILLE, ILLINOIS**

**PATRICK
ENGINEERING INC.**
4970 Varsity Drive
Lisle, Illinois 60532-4101
TEL (630) 795-7200
FAX (630) 724-1681
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000409

GRAPHIC SCALE

0 2,000'





LEGEND



ASH POND



0 600'

A scale bar with markings at 0 and 600 feet, accompanied by a black and white checkered pattern.

GRAPHIC SCALE

AERIAL IMAGE SOURCE:
LANDISCOR AERIAL INFORMATION INC., JULY 2008

Date: FEB. 2011

Proj No.: 21053.070

App. By: RMF

**FIGURE 2
ASH POND LOCATION MAP**

**WILL COUNTY STATION
ROMEOVILLE, ILLINOIS**

**PATRICK
ENGINEERING INC.**

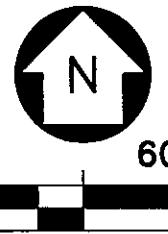
4970 Varsity Drive
Liste, Illinois 60532-4101
PROFESSIONAL DESIGN FIRM LICENSE NO. 164-000409

TEL (630) 795-7200
FAX (630) 724-1681



LEGEND

 MW-01 MONITORING WELL LOCATION



GRAPHIC SCALE

AERIAL IMAGE SOURCE:
LANDISCOR AERIAL INFORMATION INC., JULY 2008

Date: FEB. 2011

Proj No.: 21053.070

App. By: RMF

FIGURE 3
MONITORING WELL LOCATION PLAN

**WILL COUNTY STATION
ROMEovILLE, ILLINOIS**

**PATRICK
ENGINEERING INC.**

4970 Varsity Drive
Lisle, Illinois 60532-4101
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000409

TEL (630) 795-7200
FAX (630) 724-1681

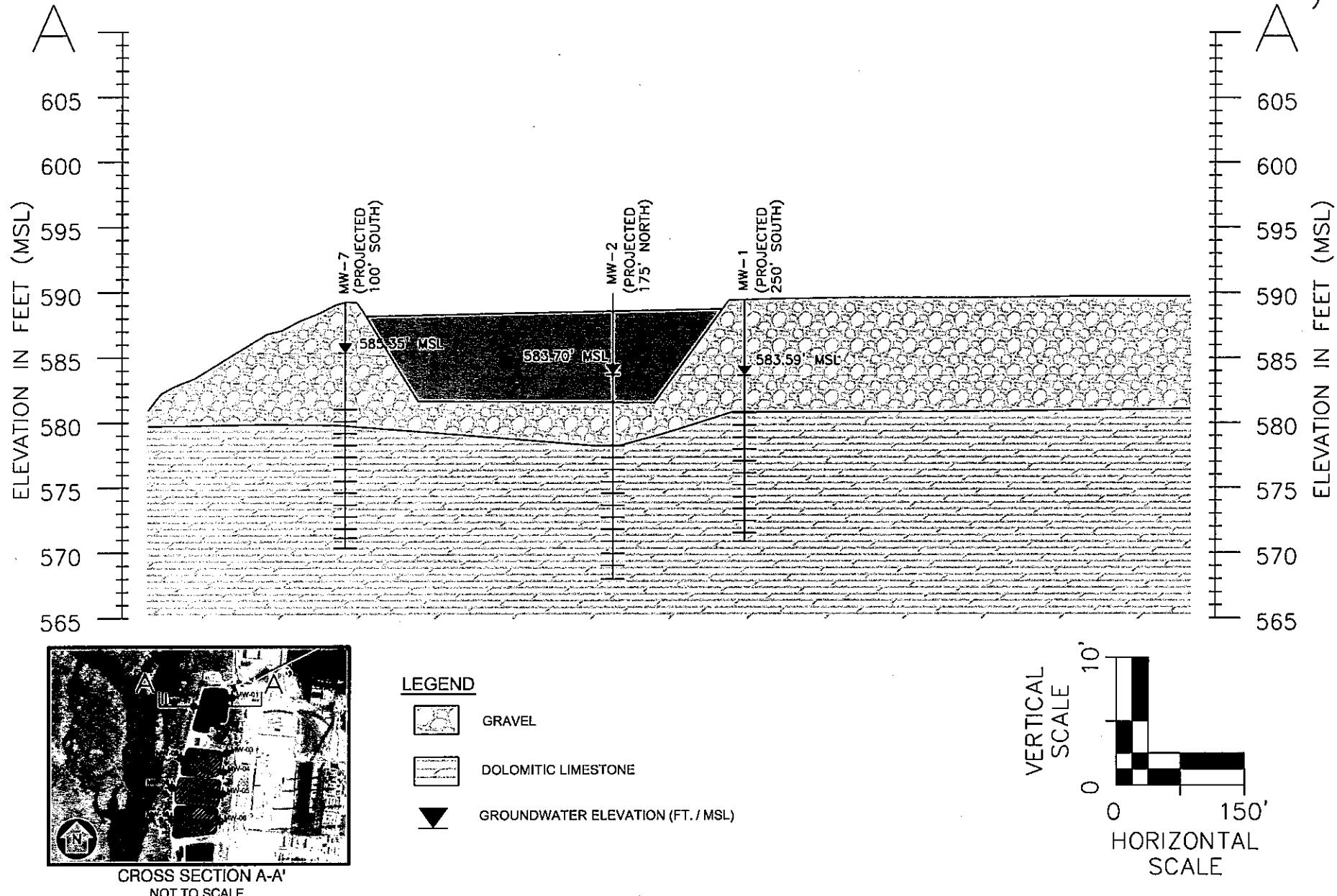


FIGURE 4
CROSS SECTION A-A' - SITE LITHOLOGY
WILL COUNTY STATION
ROMEoville, illinois

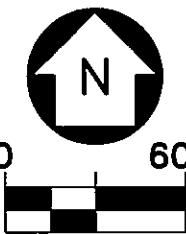
Date: FEB. 2011
Proj No.: 21053.070
App. By: RMF
MWG 14-5 7249



LEGEND

MW-01 505.46' MONITORING WELL LOCATION (NOVEMBER 2010)
WITH GROUNDWATER ELEVATION (FT. / MSL)

→ GROUNDWATER FLOW DIRECTION



GRAPHIC SCALE

AERIAL IMAGE SOURCE:
LANDISCOR AERIAL INFORMATION INC., JULY 2008

Date: FEB. 2011

Proj No.: 21053.070

App. By: RMF

FIGURE 5
GROUNDWATER ELEVATION MAP

**WILL COUNTY STATION
ROMEOVILLE, ILLINOIS**

**PATRICK
ENGINEERING INC.**

4970 Varsity Drive
Lisle, Illinois 60532-4101
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000409

TEL. (630) 795-7200
FAX (630) 724-1681

PATRICK ENGINEERING INC.

BORING NUMBER **B-MW-1-W1** SHEET **1** OF **1**
 CLIENT **Midwest Generation**
 PROJECT & NO. **21053.070**
 LOCATION **Will County Station**

LOGGED BY **MPG**

GROUND ELEVATION **589.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	Water Content					NOTES & TEST RESULTS	
						PL	10	20	30	40	50	
589.8	0.0		Black coal cinders, fine gravel, cobbles, crushed rock	FILL SS-1 1.0-2.5 7'R	5 10 14							qu=NT
584.8	5.0		Gravel, weathered limestone, silt	SS-2 3.5-5.0 10'R	4 9 15							Bentonite seal 2.0'-8.0'. Stickup protective cover installed. qu=NT
583.8	6.0	▽	Saturated	SS-3 6.0-7.5 12'R	7 21 19							qu=NT
579.8	10.0		Weathered limestone bedrock	SS-4 8.5-10.0	50/4"							Sand pack 8.0'-19.0' Set screen (slot 0.010") 9.0'-19.0'
			End of Boring at 10.0"									
570.8	19.0											

DRILLING CONTRACTOR **Groff Testing**

DRILLING METHOD **4.25" I.D. HSA**

DRILLING EQUIPMENT **CME 550 ATV**

DRILLING STARTED 10/22/10 ENDED 10/25/10

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)

▽ 6.0

▽

▽

PATRICK ENGINEERING INC.

BORING NUMBER

B-MW-2-Wi

SHEET 1 OF 1

CLIENT

Midwest Generation

PROJECT & NO.

21053.070

LOCATION

Will County Station

LOGGED BY MPG

GROUND ELEVATION 590.6

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	Water Content					NOTES & TEST RESULTS		
						PL	10	20	30	40	50		
590.6	0.0		Black coal ash, brown gravelly clay, sand, gray silty clay Rubble	FILL SS-1 1.0-2.5 SS-2 3.5-5.0 6'R SS-3 6.0-7.5 18'R SS-4 8.5-10.0 16'R SS-5 11.0-12.5	9 13 10 6 7 9 5 7 7 9 50/0"							Bentonite seal 2.0'-10.0'. Stickup protective cover installed. qu=NT	
582.1	8.5		Black coal cinders, coal dust, clay fill										qu=NT
580.6	10.0	▽	Wet										Sand pack 10.0'-22.0' qu=NT
578.6	12.0		Weathered limestone bedrock										Set screen (slot 0.010") 12.0'-22.0' Cored bedrock to 22.0'
End of Boring at 12.0'													
568.6	22.0												

DRILLING CONTRACTOR Groff Testing

DRILLING METHOD 4.25" I.D. HSA

DRILLING EQUIPMENT CME 550 ATV

DRILLING STARTED 10/21/10 ENDED 10/22/10

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)

▽ 10.0

▽

▽

PATRICK ENGINEERING INC.

BORING NUMBER **B-MW-3-WI** SHEET **1** OF **1**
 CLIENT **Midwest Generation**
 PROJECT & NO. **21053.070**
 LOCATION **Will County Station**

 LOGGED BY **MPG**

 GROUND ELEVATION **590.5**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	Water Content					NOTES & TEST RESULTS	
						PL	10	20	30	40	50	
590.5	0.0		Black coal ash, gravel, coarse sand, crushed rock, limestone, rubble FILL	SS-1 1.0-2.5 15"R	10 10 12							qu=NT
			Dry	SS-2 3.5-5.0 13"R	6 10 18							Bentonite seal 2.0'-6.5'. Stickup protective cover installed. qu=NT
583.5	7.0			SS-3 6.0-7.5 14"R	7 15 21							qu=NT
583.0	7.5											Sand pack 6.5'-19.5'
582.5	8.0		Gray gravel, silt Wet	GC								Set screen (slot 0.010") 7.0'-17.0'
				SS-4 8.5-10.0 4"R	3 50/0"							qu=NT
580.5	10.0		Weathered limestone bedrock									Cored bedrock to 19.5'
			End of Boring at 10.0"									
571.0	19.5											

 DRILLING CONTRACTOR **Groff Testing**

 DRILLING METHOD **4.25" I.D. HSA**

 DRILLING EQUIPMENT **CME 550 ATV**

DRILLING STARTED 10/20/10 ENDED 10/24/10

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)

▼ 8.0

▼ 7.0

▼

PATRICK ENGINEERING INC.

BORING NUMBER

B-MW-4-Wi

SHEET 1 OF 1

CLIENT

Midwest Generation

PROJECT & NO.

21053.070

LOCATION

Will County Station

LOGGED BY MPG

GROUND ELEVATION 591.2

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	PL	Water Content					LL	NOTES & TEST RESULTS
							10	20	30	40	50		
591.2	0.0		Brown fine sand, black ash, crushed rock, fine to coarse gravel, ddry	FILL	9 14 17 16 50/3"	4 23 27 50/2"						qu=NT Bentonite seal 2.0'-8.5'. Stickup protective cover installed. qu=NT	
							SS-1 1.0-2.5 14"R						
							SS-2 3.5-5.0 6"R						
							SS-3 6.0-7.5 16"R						
585.2	6.0		Gray silt, weathered limestone, moist to wet		4 23 27 50/2"	4 23 27 50/2"						qu=NT	
							SS-4 8.5-10.0 1"R						
							Saturated Limestone bedrock, weathered						
582.2	8.0											qu=NT Sand pack 8.5'-19.5' Set screen (slot 0.010") 9.5'-19.5'	
571.2	20.0		End of Boring at 20.0'										

DRILLING CONTRACTOR Groff Testing

DRILLING METHOD 4.25" I.D. HSA

DRILLING EQUIPMENT CME 550 ATV

DRILLING STARTED 10/18/10 ENDED 10/19/10

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)

✓ 9.0

✗

✗

PATRICK ENGINEERING INC.			BORING NUMBER	B-MW-5-WI	SHEET	1 OF 1		
LOGGED BY MPG			CLIENT	Midwest Generation				
GROUND ELEVATION 589.6			PROJECT & NO.	21053.070				
LOCATION Will County Station								
ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	Water Content Unconfined Compressive Strength (TSF) *	LL	NOTES & TEST RESULTS
589.6	0.0		Brown silty clay, fine gravel, coarse gravel, crushed limestone FILL Dry	SS-1 1.0-2.5 14"R	4 6 10			qu=NT
				SS-2 3.5-5.0 14"R	7 10 21			Bentonite seal 2.0'-8.0', Stickup protective cover installed. qu=NT
				SS-3 6.0-7.5 10"R	10 11 15			qu=NT
581.6	8.0		Brown gravel, clay, silt, wet	SS-4 8.5-10.0 4"R	8 50/0"			Sand pack 8.0'-19.0' qu=NT
581.1	8.5							Set screen (slot 0.010") 9.0'-19.0'
580.6	9.0		GC Weathered limestone bedrock					
569.6	20.0		End of Boring at 20.0'					
DRILLING CONTRACTOR Groff Testing			REMARKS Installed 2" diameter PVC monitoring well.			<u>WATER LEVEL (ft.)</u>		
DRILLING METHOD 4.25" I.D. HSA			8.5					
DRILLING EQUIPMENT CME 550 ATV								
DRILLING STARTED 10/20/10 ENDED 10/20/10								

PATRICK ENGINEERING INC.

BORING NUMBER **B-MW-6-WI** SHEET **1** OF **1**
 CLIENT **Midwest Generation**
 PROJECT & NO. **21053.070**
 LOCATION **Will County Station**

 LOGGED BY **MPG**

 GROUND ELEVATION **589.8**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY(IN)	BLOW COUNTS	Water Content					NOTES & TEST RESULTS	
						PL	10	20	30	40	50	
589.8	0.0		Crushed stone, brown medium sand, black coal cinders, dry FILL	SS-1 1.0-2.5 10'R	7 11 8							qu=NT
				SS-2 3.5-5.0 10'R	6 14 13							Bentonite seal 3.0'-8.0'. Stickup protective cover installed. qu=NT
				SS-3 6.0-7.5 11'R	4 7 16							qu=NT
581.8	8.0		Gray silty clay, coarse to fine gravel, trace coarse sand, wet	CL								
580.8	9.0	▽		SS-4 8.5-10.0 12'R	7 9 18							Set screen (slot 0.010") 8.0'-18.0' Sand pack 8.0'-18.0' qu=NT
579.3	10.5		Weathered limestone bedrock									Set up NX core barrel & cored bedrock to 18.0'
571.8	18.0		End of Boring at 18.0'									

 DRILLING CONTRACTOR **Groff Testing**

 DRILLING METHOD **4.25" I.D. HSA**

 DRILLING EQUIPMENT **CME 550 ATV**

DRILLING STARTED 10/12/10 ENDED 10/12/10

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)

▽ 9.0

▽

▽

PATRICK ENGINEERING INC.

BORING NUMBER

B-MW-7-WI

SHEET 1 OF 1

CLIENT

Midwest Generation

PROJECT & NO.

21053.070

LOCATION

Will County Station

LOGGED BY MPG

GROUND ELEVATION 589.6

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	PL	Water Content					LL	NOTES & TEST RESULTS
							10	20	30	40	50		
												*	
589.6	0.0		Crushed stone, gravel, silt, sand FILL	SS-1 1.0-2.5 10'R	7 7 4								qu=NT
			Rock rubble, dry	SS-2 3.5-5.0 10'R	6 11 12								Bentonite seal 3.0'-6.0'. Stickup protective cover installed. qu=NT
582.6	7.0		Brown gravel, silt, coarse sand, saturated GC	SS-3 6.0-7.5 6'R	11 5 5								qu=NT Sand pack 6.0'-18.0'
581.6	8.0	▽		SS-4 8.5-10.0 0'R	50/2"								Set screen (slot 0.010") 7.5'-17.5'
581.1	8.5		Weathered limestone bedrock										qu=NT Cored bedrock 9.0'-18.0'
571.6	18.0		End of Boring at 18.0'										

DRILLING CONTRACTOR Groff Testing

DRILLING METHOD 4.25" I.D. HSA

DRILLING EQUIPMENT CME 550 ATV

DRILLING STARTED 10/22/10 ENDED 10/22/10

REMARKS

Installed 2" diameter PVC
monitoring well.

WATER LEVEL (ft.)

▽ 8.0

▽

▽

PATRICK ENGINEERING INC.

BORING NUMBER

B-MW-8-WI

SHEET 1 OF 1

CLIENT

Midwest Generation

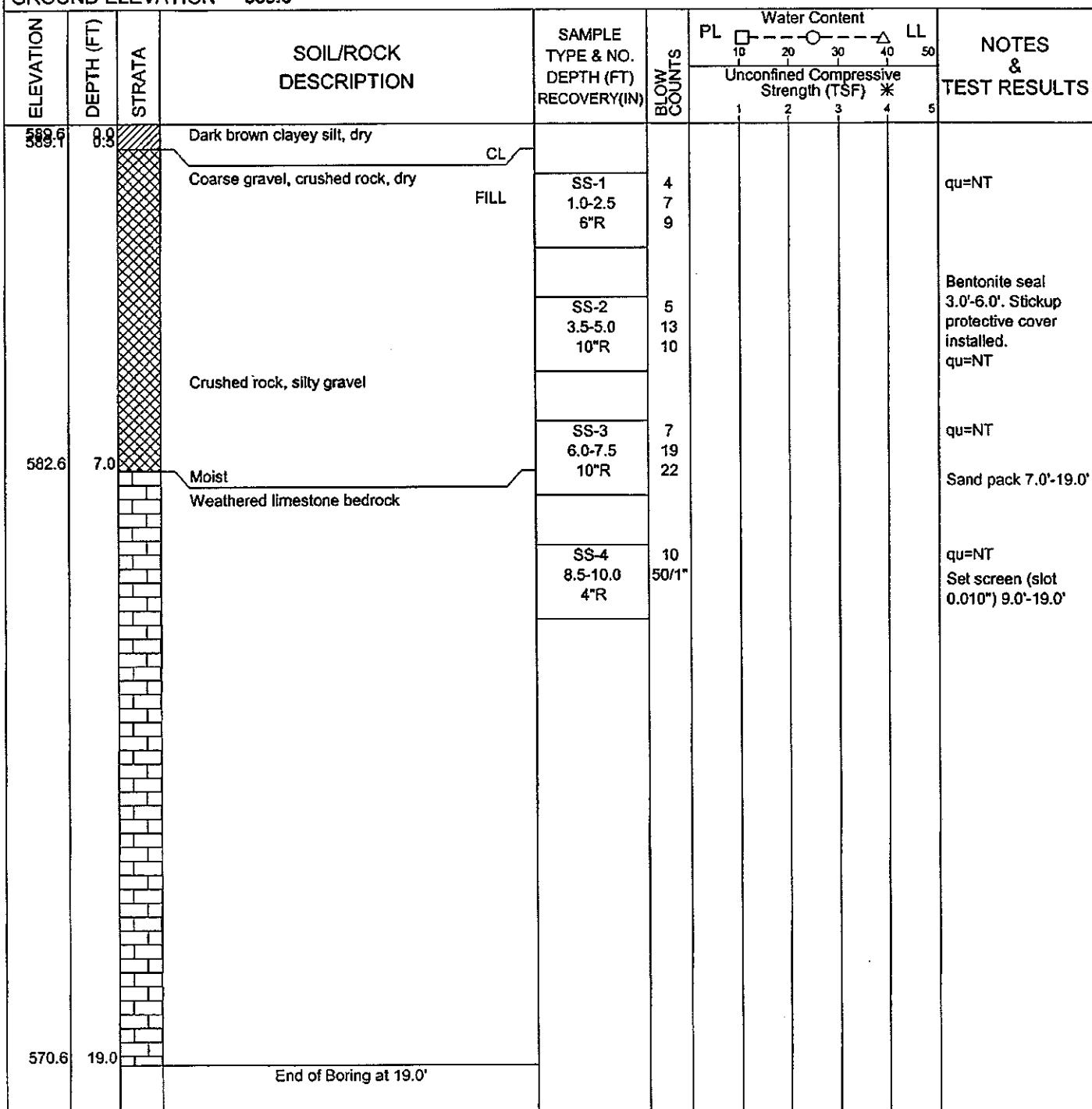
PROJECT & NO.

21053.070

Will County Station

LOGGED BY MPG

GROUND ELEVATION 589.6



DRILLING CONTRACTOR Groff Testing

DRILLING METHOD **4.25" I.D. HSA**

DRILLING EQUIPMENT CME 550 ATV

DRILLING STARTED 10/19/10 ENDED 10/19/10

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)



PATRICK ENGINEERING INC.

BORING NUMBER

B-MW-9-WI

SHEET 1 OF 1

CLIENT

Midwest Generation

PROJECT & NO.

21053.070

LOCATION

Will County Station

LOGGED BY MPG

GROUND ELEVATION 589.8

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	PL	Water Content					LL	NOTES & TEST RESULTS
							1	2	3	4	5		
589.8	0.0		Crushed rock, coarse sand, some silt Some brown silty clay	FILL SS-1 1.0-2.5 14"R SS-2 3.5-5.0 16"R SS-3 6.0-7.5 16"R SS-4 8.5-10.0 17"R SS-5 11.0-12.5 12"R	4 7 9 3 11 6 4 11 13 4 10 11 5 5 50/3"							qu=NT Bentonite seal 3.0'-8.0'. Stickup protective cover installed. qu=NT	
583.8	6.0		Gray silty clay, fine and coarse gravel, some coarse sand Moist	GC	4 11 13 4 10 11 5 5 50/3"							qu=NT Sand pack 8.0'-19.0' qu=NT Set screen (slot 0.010") 9.0'-19.0'	
578.3	11.5		Clayey gravel Weather limestone bedrock									qu=NT Cored bedrock to 22.0'	
570.8	19.0		End of Boring at 19.0'										

DRILLING CONTRACTOR Groff Testing

DRILLING METHOD 4.25" I.D. HSA

DRILLING EQUIPMENT CME 550 ATV

DRILLING STARTED 10/19/10 ENDED 10/19/10

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)

± 11.5'

▼

▼

PATRICK ENGINEERING INC.

BORING NUMBER **B-MW-10-WI** SHEET **1** OF **1**
 CLIENT **Midwest Generation**
 PROJECT & NO. **21053.070**
 LOCATION **Will County Station**

 LOGGED BY **MPG**

 GROUND ELEVATION **591.3**

ELEVATION	DEPTH (FT)	STRATA	SOIL/ROCK DESCRIPTION	SAMPLE TYPE & NO. DEPTH (FT) RECOVERY (IN)	BLOW COUNTS	PL	Water Content					LL	NOTES & TEST RESULTS		
							1	2	3	4	5				
591.3	0.0		Crushed limestone, silt, gravel FILL	SS-1 1.0-2.5 4"R SS-2 3.5-5.0 14"R SS-3 6.0-7.5 4"R SS-4 8.5-10.0 4"R SS-5 11.0-12.5 0"R	7 10 12 13 18 8 18 50/5" 13 17 50/1"							Bentonite seal 2.0'-8.0'. Flush mount protective cover installed. qu=NT			
591.3	10.0		Weathered limestone, clay, sand, gravel GC									Set screen (slot 0.010") (slot 0.010") 10.0'-20.0' qu=NT -21.0'			
579.3	12.0		Weathered limestone bedrock												
571.3	20.0		End of Boring at 20.0'												

 DRILLING CONTRACTOR **Groff Testing**

 DRILLING METHOD **4.25" I.D. HSA**

 DRILLING EQUIPMENT **CME 550 ATV**

 DRILLING STARTED **10/21/10** ENDED **10/21/10**

REMARKS

Installed 2" diameter PVC monitoring well.

WATER LEVEL (ft.)

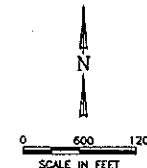
10.0
10
10



LEGEND	
POTABLE WELL LOCATION (APPROXIMATE)	ASH POND
— — — — 2,500 FOOT RADIUS OF ASH POND SYSTEMS	

NOTE:
REFER TO SUMMARY TABLE FOR SPECIFIC
WELL INFORMATION.

SOURCE:
2002 DIGITAL ORTHOPHOTO FROM
ILLINOIS NATURAL RESOURCES GEOSPATIAL
DATA CLEARINGHOUSE.
WELL LOCATIONS FROM ILLINOIS STATE
GEOLOGICAL SURVEY, ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY, AND
ILLINOIS STATE WATER SURVEY.



	POTABLE WATER WELLS	DRAWN BY: KNH DATE: 05/13/09
	CHECKED BY: HNS DATE: 05/22/09	APPROVED BY: HNS DATE: 07/07/09
	DRAWING NO: 1792-3-B01	REFERENCE: 1
NATURAL RESOURCE TECHNOLOGY	PROJECT NO. 1792/3.0	FIGURE NO. 1

ANALYTICAL REPORT

Job Number: 500-29848-1

Job Description: Will County Ash Pond Assessments

For:

Midwest Generation EME LLC
529 E 135th Street

Romeoville, IL 60446-1538

Attention: Beckie Maddox

Approved for release.
Bonnie M Stadelmann
Project Manager II
12/28/2010 4:14 PM

Bonnie Stadelmann

Bonnie M Stadelmann
Project Manager II
bonnie.stadelmann@testamericainc.com
12/28/2010

cc: Andrew Gagnon
Ms. Maria Race

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID#:
TestAmerica Chicago 100201

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Chicago 2417 Bond Street, University Park, IL 60484

Tel (708) 534-5200 Fax (708) 534-5211 www.testamericainc.com



**Job Narrative
500-29848-1**

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

Metals

Method(s) 6020: The continuing calibration verification (CCV) and continuing calibration blank (CCB) at lines 91 and 92 in AD batch 102214 recovered above the upper control limit for Sb. The samples associated with this CCV and CCB were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 6020: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for 500-29848-2 were outside control limits for Se. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

Field Service / Mobile Lab

No analytical or quality issues were noted.

General Chemistry

Method(s) SM 4500 NO3 F: The nitrate continuing calibration verification (CCV) for 102133 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. MW-10 (500-29848-10)

No other analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
500-29848-1	MW-01				
<i>Dissolved</i>					
Barium		0.050	0.0025	mg/L	6020
Boron		1.8	0.25	mg/L	6020
Cobalt		0.0011	0.0010	mg/L	6020
Manganese		0.20	0.0025	mg/L	6020
Nickel		0.0046	0.0020	mg/L	6020
Sulfate-Dissolved		530	100	mg/L	9038
Chloride-Dissolved		110	10	mg/L	9251
Total Dissolved Solids-Dissolved		1100	10	mg/L	SM 2540C
Fluoride-Dissolved		0.71	0.10	mg/L	SM 4500 F C
500-29848-2	MW-02				
<i>Dissolved</i>					
Arsenic		0.0052	0.0010	mg/L	6020
Barium		0.061	0.0025	mg/L	6020
Boron		1.8	0.25	mg/L	6020
Manganese		0.032	0.0025	mg/L	6020
Sulfate-Dissolved		430	100	mg/L	9038
Chloride-Dissolved		110	10	mg/L	9251
Total Dissolved Solids-Dissolved		870	10	mg/L	SM 2540C
Fluoride-Dissolved		0.62	0.10	mg/L	SM 4500 F C
500-29848-3	MW-03				
<i>Dissolved</i>					
Arsenic		0.0020	0.0010	mg/L	6020
Barium		0.084	0.0025	mg/L	6020
Boron		2.7	0.25	mg/L	6020
Iron		0.37	0.10	mg/L	6020
Manganese		0.34	0.0025	mg/L	6020
Nickel		0.0054	0.0020	mg/L	6020
Sulfate-Dissolved		330	100	mg/L	9038
Chloride-Dissolved		54	2.0	mg/L	9251
Total Dissolved Solids-Dissolved		940	10	mg/L	SM 2540C
Fluoride-Dissolved		0.50	0.10	mg/L	SM 4500 F C

EXECUTIVE SUMMARY - Detections

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
500-29848-4	MW-04				
<i>Dissolved</i>					
Arsenic		0.0027	0.0010	mg/L	6020
Barium		0.068	0.0025	mg/L	6020
Boron		3.7	0.25	mg/L	6020
Cobalt		0.0011	0.0010	mg/L	6020
Iron		0.83	0.10	mg/L	6020
Manganese		0.52	0.0025	mg/L	6020
Nickel		0.0048	0.0020	mg/L	6020
Sulfate-Dissolved		1500	250	mg/L	9038
Chloride-Dissolved		120	10	mg/L	9251
Total Dissolved Solids-Dissolved		2500	10	mg/L	SM 2540C
Fluoride-Dissolved		0.52	0.10	mg/L	SM 4500 F C
500-29848-5	MW-05				
<i>Dissolved</i>					
Arsenic		0.0066	0.0010	mg/L	6020
Barium		0.051	0.0025	mg/L	6020
Boron		2.6	0.25	mg/L	6020
Manganese		0.0079	0.0025	mg/L	6020
Selenium		0.017	0.0025	mg/L	6020
Sulfate-Dissolved		580	100	mg/L	9038
Chloride-Dissolved		110	10	mg/L	9251
Nitrogen, Nitrate-Dissolved		0.27	0.10	mg/L	Nitrate by calc
Total Dissolved Solids-Dissolved		1000	10	mg/L	SM 2540C
Fluoride-Dissolved		0.41	0.10	mg/L	SM 4500 F C
Nitrogen, Nitrate Nitrite-Dissolved		0.27	0.10	mg/L	SM 4500 NO3 F
500-29848-6	MW-06				
<i>Dissolved</i>					
Arsenic		0.0018	0.0010	mg/L	6020
Barium		0.050	0.0025	mg/L	6020
Boron		2.7	0.25	mg/L	6020
Manganese		0.073	0.0025	mg/L	6020
Selenium		0.0062	0.0025	mg/L	6020
Sulfate-Dissolved		500	100	mg/L	9038
Chloride-Dissolved		120	10	mg/L	9251
Total Dissolved Solids-Dissolved		990	10	mg/L	SM 2540C
Fluoride-Dissolved		0.85	0.10	mg/L	SM 4500 F C

EXECUTIVE SUMMARY - Detections

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
500-29848-7	MW-07				
<i>Dissolved</i>					
Arsenic		0.0040	0.0010	mg/L	6020
Barium		0.045	0.0025	mg/L	6020
Boron		4.7	0.25	mg/L	6020
Iron		0.23	0.10	mg/L	6020
Manganese		0.12	0.0025	mg/L	6020
Nickel		0.0029	0.0020	mg/L	6020
Sulfate-Dissolved		610	100	mg/L	9038
Chloride-Dissolved		160	10	mg/L	9251
Total Dissolved Solids-Dissolved		1300	10	mg/L	SM 2540C
Fluoride-Dissolved		0.96	0.10	mg/L	SM 4500 F C
500-29848-8	MW-08				
<i>Dissolved</i>					
Arsenic		0.0067	0.0010	mg/L	6020
Barium		0.069	0.0025	mg/L	6020
Boron		1.7	0.25	mg/L	6020
Iron		0.48	0.10	mg/L	6020
Manganese		0.33	0.0025	mg/L	6020
Sulfate-Dissolved		440	100	mg/L	9038
Chloride-Dissolved		93	10	mg/L	9251
Total Dissolved Solids-Dissolved		930	10	mg/L	SM 2540C
Fluoride-Dissolved		0.61	0.10	mg/L	SM 4500 F C
500-29848-9	MW-09				
<i>Dissolved</i>					
Arsenic		0.0059	0.0010	mg/L	6020
Barium		0.025	0.0025	mg/L	6020
Boron		2.2	0.25	mg/L	6020
Selenium		0.0036	0.0025	mg/L	6020
Sulfate-Dissolved		410	100	mg/L	9038
Chloride-Dissolved		100	10	mg/L	9251
Total Dissolved Solids-Dissolved		800	10	mg/L	SM 2540C
Fluoride-Dissolved		0.33	0.10	mg/L	SM 4500 F C
Nitrogen, Nitrite-Dissolved		0.44	0.10	mg/L	SM 4500 NO2 B

EXECUTIVE SUMMARY - Detections

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Sample ID Analyte	Client Sample ID MW-10	Result / Qualifier	Reporting Limit	Units	Method
<i>Dissolved</i>					
Arsenic		0.0041	0.0010	mg/L	6020
Barium		0.098	0.0025	mg/L	6020
Boron		2.1	0.25	mg/L	6020
Iron		0.32	0.10	mg/L	6020
Manganese		0.25	0.0025	mg/L	6020
Sulfate-Dissolved		370	100	mg/L	9038
Chloride-Dissolved		92	10	mg/L	9251
Total Dissolved Solids-Dissolved		990	10	mg/L	SM 2540C
Fluoride-Dissolved		0.66	0.10	mg/L	SM 4500 F C

METHOD SUMMARY

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP/MS)	TAL CHI	SW846 6020	
Preparation, Soluble	TAL CHI		Soluble Metals
Sample Filtration, Field			FIELD_FLTRD
Mercury (CVAA)	TAL CHI	SW846 7470A	
Preparation, Mercury	TAL CHI		SW846 7470A
Sample Filtration, Field			FIELD_FLTRD
Cyanide	TAL CHI	SW846 9014	
Cyanide, Distillation	TAL CHI		SW846 9010B
Sample Filtration, Field			FIELD_FLTRD
Sulfate, Turbidimetric	TAL CHI	SW846 9038	
Sample Filtration, Field			FIELD_FLTRD
Chloride	TAL CHI	SW846 9251	
Sample Filtration, Field			FIELD_FLTRD
Nitrogen, Nitrate-Nitrite	TAL CHI	SM Nitrate by calc	
Sample Filtration, Field			FIELD_FLTRD
Solids, Total Dissolved (TDS)	TAL CHI	SM SM 2540C	
Sample Filtration, Field			FIELD_FLTRD
Fluoride	TAL CHI	SM SM 4500 F C	
Sample Filtration, Field			FIELD_FLTRD
Nitrogen, Nitrite	TAL CHI	SM SM 4500 NO2 B	
Sample Filtration, Field			FIELD_FLTRD
Nitrogen, Nitrate	TAL CHI	SM SM 4500 NO3 F	
Sample Filtration, Field			FIELD_FLTRD

Lab References:

TAL CHI = TestAmerica Chicago

Method 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.

METHOD / ANALYST SUMMARY

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method	Analyst	Analyst ID
SW846 6020	Kolarczyk, Paul F	PKF
SW846 7470A	Roach, Jessica	JR
SW846 9014	Moore, Colleen L	CLM
SW846 9038	Boyd, Cheryl L	CLB
SW846 9251	Deb, Khona	KD
SM Nitrate by calc	Ficarello, Peter M	PMF
SM SM 2540C	Boyd, Cheryl L	CLB
SM SM 4500 F C	Moore, Colleen L	CLM
SM SM 4500 NO2 B	Moore, Colleen L	CLM
SM SM 4500 NO3 F	Ficarello, Peter M	PMF

SAMPLE SUMMARY

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-29848-1	MW-01	Water	12/13/2010 1400	12/14/2010 1255
500-29848-2	MW-02	Water	12/13/2010 1315	12/14/2010 1255
500-29848-3	MW-03	Water	12/13/2010 1230	12/14/2010 1255
500-29848-4	MW-04	Water	12/13/2010 1200	12/14/2010 1255
500-29848-5	MW-05	Water	12/13/2010 1130	12/14/2010 1255
500-29848-6	MW-06	Water	12/13/2010 0945	12/14/2010 1255
500-29848-7	MW-07	Water	12/13/2010 1445	12/14/2010 1255
500-29848-8	MW-08	Water	12/13/2010 1555	12/14/2010 1255
500-29848-9	MW-09	Water	12/13/2010 1525	12/14/2010 1255
500-29848-10	MW-10	Water	12/13/2010 1045	12/14/2010 1255

SAMPLE RESULTS

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Job Number: 500-29848-1

Client Sample ID: MW-01
 Lab Sample ID: 500-29848-1

Date Sampled: 12/13/2010 1400
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1329	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1805	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	<0.0010	mg/L	0.0010	1.0
Barium	0.050	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	0.0011	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	<0.10	mg/L	0.10	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Manganese	0.20	mg/L	0.0025	1.0
Nickel	0.0046	mg/L	0.0020	1.0
Selenium	<0.0025	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1426	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Boron	1.8	mg/L	0.25	5.0
Method: Dissolved-7470A		Date Analyzed:	12/15/2010 1339	
Prep Method: 7470A		Date Prepared:	12/15/2010 0735	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014		Date Analyzed:	12/20/2010 1530	
Prep Method: 9010B		Date Prepared:	12/20/2010 1110	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2028	
Sulfate	530	mg/L	100	20
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1239	
Chloride	110	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2244	

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Job Number: 500-29848-1

Client Sample ID: MW-01
Lab Sample ID: 500-29848-1

Date Sampled: 12/13/2010 1400
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Total Dissolved Solids	1100	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1412	
Fluoride	0.71	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0941	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1141	
Nitrogen, Nitrate Nitrite	<0.10	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-02
Lab Sample ID: 500-29848-2

Date Sampled: 12/13/2010 1315
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1331	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1807	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0052	mg/L	0.0010	1.0
Barium	0.061	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	<0.10	mg/L	0.10	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Manganese	0.032	mg/L	0.0025	1.0
Nickel	<0.0020	mg/L	0.0020	1.0
Selenium	<0.0025	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1427	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Boron	1.8	mg/L	0.25	5.0
Method: Dissolved-7470A		Date Analyzed:	12/15/2010 1340	
Prep Method: 7470A		Date Prepared:	12/15/2010 0735	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014		Date Analyzed:	12/20/2010 1530	
Prep Method: 9010B		Date Prepared:	12/20/2010 1110	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2029	
Sulfate	430	mg/L	100	20
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1239	
Chloride	110	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2253	

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Job Number: 500-29848-1

Client Sample ID: MW-02
Lab Sample ID: 500-29848-2

Date Sampled: 12/13/2010 1315
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Total Dissolved Solids	870	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1421	
Fluoride	0.62	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0941	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1143	
Nitrogen, Nitrate Nitrite	<0.10	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-03
Lab Sample ID: 500-29848-3

Date Sampled: 12/13/2010 1230
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020 Prep Method: Soluble Metals				
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals				
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0020	mg/L	0.0010	1.0
Barium	0.084	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	<0.0025	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals				
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	0.37	mg/L	0.10	1.0
Manganese	0.34	mg/L	0.0025	1.0
Nickel	0.0054	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals				
Boron	2.7	mg/L	0.25	5.0
Method: Dissolved-7470A Prep Method: 7470A				
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014 Prep Method: 9010B				
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038				
Sulfate	330	mg/L	100	20
Method: Dissolved-9251				
Chloride	54	mg/L	2.0	1.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	

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Job Number: 500-29848-1

Client Sample ID: MW-03
Lab Sample ID: 500-29848-3

Date Sampled: 12/13/2010 1230
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2256	
Total Dissolved Solids	940	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1423	
Fluoride	0.50	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0942	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1145	
Nitrogen, Nitrate Nitrite	<0.10	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-04
 Lab Sample ID: 500-29848-4

Date Sampled: 12/13/2010 1200
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020 Prep Method: Soluble Metals		Date Analyzed:	12/17/2010 1343	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals		Date Analyzed:	12/17/2010 1828	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0027	mg/L	0.0010	1.0
Barium	0.068	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	<0.0025	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals		Date Analyzed:	12/20/2010 1207	
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	0.0011	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	0.83	mg/L	0.10	1.0
Manganese	0.52	mg/L	0.0025	1.0
Nickel	0.0048	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals		Date Analyzed:	12/20/2010 1434	
Boron	3.7	mg/L	0.25	5.0
Method: Dissolved-7470A Prep Method: 7470A		Date Analyzed:	12/15/2010 1344	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014 Prep Method: 9010B		Date Analyzed:	12/20/2010 1531	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2031	
Sulfate	1500	mg/L	250	50
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1240	
Chloride	120	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	

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Job Number: 500-29848-1

Client Sample ID: MW-04
Lab Sample ID: 500-29848-4

Date Sampled: 12/13/2010 1200
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C Total Dissolved Solids	2500	Date Analyzed: mg/L	12/14/2010 2259 10	1.0
Method: Dissolved-SM 4500 F C Fluoride	0.52	Date Analyzed: mg/L	12/20/2010 1426 0.10	1.0
Method: Dissolved-SM 4500 NO2 B Nitrogen, Nitrite	<0.020	Date Analyzed: mg/L	12/15/2010 0942 0.020	1.0
Method: Dissolved-SM 4500 NO3 F Nitrogen, Nitrate Nitrite	<0.10	Date Analyzed: mg/L	12/17/2010 1147 0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-05
 Lab Sample ID: 500-29848-5

Date Sampled: 12/13/2010 1130
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020 Prep Method: Soluble Metals				
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals				
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0066	mg/L	0.0010	1.0
Barium	0.051	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	0.017	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals				
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	<0.10	mg/L	0.10	1.0
Manganese	0.0079	mg/L	0.0025	1.0
Nickel	<0.0020	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020 Prep Method: Soluble Metals				
Boron	2.6	mg/L	0.25	5.0
Method: Dissolved-7470A Prep Method: 7470A				
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014 Prep Method: 9010B				
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038				
Sulfate	580	mg/L	100	20
Method: Dissolved-9251				
Chloride	110	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	

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Job Number: 500-29848-1

Client Sample ID: MW-05
Lab Sample ID: 500-29848-5

Date Sampled: 12/13/2010 1130
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	0.27	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2302	
Total Dissolved Solids	1000	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1429	
Fluoride	0.41	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0942	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1149	
Nitrogen, Nitrate Nitrite	0.27	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-06
 Lab Sample ID: 500-29848-6

Date Sampled: 12/13/2010 0945
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1833	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0018	mg/L	0.0010	1.0
Barium	0.050	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	0.0062	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1212	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	<0.10	mg/L	0.10	1.0
Manganese	0.073	mg/L	0.0025	1.0
Nickel	<0.0020	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1436	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Boron	2.7	mg/L	0.25	5.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1534	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-7470A		Date Analyzed:	12/15/2010 1350	
Prep Method: 7470A		Date Prepared:	12/15/2010 0735	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014		Date Analyzed:	12/20/2010 1531	
Prep Method: 9010B		Date Prepared:	12/20/2010 1110	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2033	
Sulfate	500	mg/L	100	20
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1241	
Chloride	120	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	

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Job Number: 500-29848-1

Client Sample ID: MW-06
Lab Sample ID: 500-29848-6

Date Sampled: 12/13/2010 0945
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2306	
Total Dissolved Solids	990	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1432	
Fluoride	0.85	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0942	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1151	
Nitrogen, Nitrate Nitrite	<0.10	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-07
 Lab Sample ID: 500-29848-7

Date Sampled: 12/13/2010 1445
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1835	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0040	mg/L	0.0010	1.0
Barium	0.045	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	<0.0025	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1214	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	0.23	mg/L	0.10	1.0
Manganese	0.12	mg/L	0.0025	1.0
Nickel	0.0029	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1436	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Boron	4.7	mg/L	0.25	5.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1535	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-7470A		Date Analyzed:	12/15/2010 1352	
Prep Method: 7470A		Date Prepared:	12/15/2010 0735	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014		Date Analyzed:	12/20/2010 1532	
Prep Method: 9010B		Date Prepared:	12/20/2010 1110	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2036	
Sulfate	610	mg/L	100	20
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1242	
Chloride	160	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	

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Job Number: 500-29848-1

Client Sample ID: MW-07
Lab Sample ID: 500-29848-7

Date Sampled: 12/13/2010 1445
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2309	
Total Dissolved Solids	1300	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1435	
Fluoride	0.96	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0943	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1154	
Nitrogen, Nitrate Nitrite	<0.10	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-08
Lab Sample ID: 500-29848-8

Date Sampled: 12/13/2010 1555
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1838	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0067	mg/L	0.0010	1.0
Barium	0.069	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	<0.0025	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1220	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	0.48	mg/L	0.10	1.0
Manganese	0.33	mg/L	0.0025	1.0
Nickel	<0.0020	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1437	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Boron	1.7	mg/L	0.25	5.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1536	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-7470A		Date Analyzed:	12/15/2010 1354	
Prep Method: 7470A		Date Prepared:	12/15/2010 0735	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014		Date Analyzed:	12/20/2010 1532	
Prep Method: 9010B		Date Prepared:	12/20/2010 1110	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2037	
Sulfate	440	mg/L	100	20
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1242	
Chloride	93	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1343	

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Job Number: 500-29848-1

Client Sample ID: MW-08
Lab Sample ID: 500-29848-8

Date Sampled: 12/13/2010 1555
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2312	
Total Dissolved Solids	930	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1438	
Fluoride	0.61	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0943	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1156	
Nitrogen, Nitrate Nitrite	<0.10	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-09
Lab Sample ID: 500-29848-9

Date Sampled: 12/13/2010 1525
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1840	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0059	mg/L	0.0010	1.0
Barium	0.025	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	0.0036	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1222	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	<0.10	mg/L	0.10	1.0
Manganese	<0.0025	mg/L	0.0025	1.0
Nickel	<0.0020	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1438	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Boron	2.2	mg/L	0.25	5.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1537	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-7470A		Date Analyzed:	12/15/2010 1355	
Prep Method: 7470A		Date Prepared:	12/15/2010 0735	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014		Date Analyzed:	12/20/2010 1533	
Prep Method: 9010B		Date Prepared:	12/20/2010 1110	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2038	
Sulfate	410	mg/L	100	20
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1244	
Chloride	100	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/22/2010 1549	

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Job Number: 500-29848-1

Client Sample ID: MW-09
Lab Sample ID: 500-29848-9

Date Sampled: 12/13/2010 1525
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2315	
Total Dissolved Solids	800	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1451	
Fluoride	0.33	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0944	
Nitrogen, Nitrite	0.44	mg/L	0.10	5.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/22/2010 1046	
Nitrogen, Nitrate Nitrite	<0.10	mg/L	0.10	1.0

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Job Number: 500-29848-1

Client Sample ID: MW-10
 Lab Sample ID: 500-29848-10

Date Sampled: 12/13/2010 1045
 Date Received: 12/14/2010 1255
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Method: Dissolved-6020		Date Analyzed:	12/17/2010 1843	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Antimony	<0.0030 ^	mg/L	0.0030	1.0
Arsenic	0.0041	mg/L	0.0010	1.0
Barium	0.098	mg/L	0.0025	1.0
Cadmium	<0.00050	mg/L	0.00050	1.0
Lead	<0.00050	mg/L	0.00050	1.0
Selenium	<0.0025	mg/L	0.0025	1.0
Silver	<0.00050	mg/L	0.00050	1.0
Thallium	<0.0020	mg/L	0.0020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1225	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Chromium	<0.0050	mg/L	0.0050	1.0
Cobalt	<0.0010	mg/L	0.0010	1.0
Copper	<0.0020	mg/L	0.0020	1.0
Iron	0.32	mg/L	0.10	1.0
Manganese	0.25	mg/L	0.0025	1.0
Nickel	<0.0020	mg/L	0.0020	1.0
Zinc	<0.020	mg/L	0.020	1.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1439	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Boron	2.1	mg/L	0.25	5.0
Method: Dissolved-6020		Date Analyzed:	12/20/2010 1538	
Prep Method: Soluble Metals		Date Prepared:	12/17/2010 1051	
Beryllium	<0.0010	mg/L	0.0010	1.0
Method: Dissolved-7470A		Date Analyzed:	12/15/2010 1357	
Prep Method: 7470A		Date Prepared:	12/15/2010 0735	
Mercury	<0.00020	mg/L	0.00020	1.0
Method: Dissolved-9014		Date Analyzed:	12/20/2010 1533	
Prep Method: 9010B		Date Prepared:	12/20/2010 1110	
Cyanide, Total	<0.010	mg/L	0.010	1.0
Method: Dissolved-9038		Date Analyzed:	12/19/2010 2039	
Sulfate	370	mg/L	100	20
Method: Dissolved-9251		Date Analyzed:	12/28/2010 1244	
Chloride	92	mg/L	10	5.0
Method: Dissolved-Nitrate by calc		Date Analyzed:	12/17/2010 1346	

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Job Number: 500-29848-1

Client Sample ID: MW-10
Lab Sample ID: 500-29848-10

Date Sampled: 12/13/2010 1045
Date Received: 12/14/2010 1255
Client Matrix: Water

Analyte	Result/Qualifier	Unit	RL	Dilution
Nitrogen, Nitrate	<0.10	mg/L	0.10	1.0
Method: Dissolved-SM 2540C		Date Analyzed:	12/14/2010 2318	
Total Dissolved Solids	990	mg/L	10	1.0
Method: Dissolved-SM 4500 F C		Date Analyzed:	12/20/2010 1454	
Fluoride	0.66	mg/L	0.10	1.0
Method: Dissolved-SM 4500 NO2 B		Date Analyzed:	12/15/2010 0944	
Nitrogen, Nitrite	<0.020	mg/L	0.020	1.0
Method: Dissolved-SM 4500 NO3 F		Date Analyzed:	12/17/2010 1204	
Nitrogen, Nitrate Nitrite	<0.10 ^	mg/L	0.10	1.0

DATA REPORTING QUALIFIERS

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
Metals		
	A	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	F	MS or MSD exceeds the control limits
General Chemistry		
	A	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

QUALITY CONTROL RESULTS

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch		
		Basis	Client Matrix	Method			
Metals							
Prep Batch: 500-101907							
LCS 500-101907/8-A	Lab Control Sample	T	Water	7470A			
MB 500-101907/7-A	Method Blank	T	Water	7470A			
500-29848-1	MW-01	D	Water	7470A			
500-29848-2	MW-02	D	Water	7470A			
500-29848-3	MW-03	D	Water	7470A			
500-29848-4	MW-04	D	Water	7470A			
500-29848-5	MW-05	D	Water	7470A			
500-29848-6	MW-06	D	Water	7470A			
500-29848-7	MW-07	D	Water	7470A			
500-29848-8	MW-08	D	Water	7470A			
500-29848-9	MW-09	D	Water	7470A			
500-29848-10	MW-10	D	Water	7470A			
Analysis Batch: 500-101907							
LCS 500-101907/8-A	Lab Control Sample	T	Water	7470A	500-101907		
MB 500-101907/7-A	Method Blank	T	Water	7470A	500-101907		
500-29848-1	MW-01	D	Water	7470A	500-101907		
500-29848-2	MW-02	D	Water	7470A	500-101907		
500-29848-3	MW-03	D	Water	7470A	500-101907		
500-29848-4	MW-04	D	Water	7470A	500-101907		
500-29848-5	MW-05	D	Water	7470A	500-101907		
500-29848-6	MW-06	D	Water	7470A	500-101907		
500-29848-7	MW-07	D	Water	7470A	500-101907		
500-29848-8	MW-08	D	Water	7470A	500-101907		
500-29848-9	MW-09	D	Water	7470A	500-101907		
500-29848-10	MW-10	D	Water	7470A	500-101907		
Prep Batch: 500-102116							
LCS 500-102116/2-A	Lab Control Sample	S	Water	Soluble Metals			
MB 500-102116/1-A	Method Blank	S	Water	Soluble Metals			
500-29848-1	MW-01	D	Water	Soluble Metals			
500-29848-2	MW-02	D	Water	Soluble Metals			
500-29848-2DU	Duplicate	D	Water	Soluble Metals			
500-29848-2MS	Matrix Spike	D	Water	Soluble Metals			
500-29848-2MSD	Matrix Spike Duplicate	D	Water	Soluble Metals			
500-29848-3	MW-03	D	Water	Soluble Metals			
500-29848-4	MW-04	D	Water	Soluble Metals			
500-29848-5	MW-05	D	Water	Soluble Metals			
500-29848-6	MW-06	D	Water	Soluble Metals			
500-29848-7	MW-07	D	Water	Soluble Metals			
500-29848-8	MW-08	D	Water	Soluble Metals			
500-29848-9	MW-09	D	Water	Soluble Metals			
500-29848-10	MW-10	D	Water	Soluble Metals			

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Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:500-102144					
LCS 500-102116/2-A	Lab Control Sample	S	Water	6020	500-102116
MB 500-102116/1-A	Method Blank	S	Water	6020	500-102116
500-29848-1	MW-01	D	Water	6020	500-102116
500-29848-2	MW-02	D	Water	6020	500-102116
500-29848-2DU	Duplicate	D	Water	6020	500-102116
500-29848-2MS	Matrix Spike	D	Water	6020	500-102116
500-29848-2MSD	Matrix Spike Duplicate	D	Water	6020	500-102116
500-29848-3	MW-03	D	Water	6020	500-102116
500-29848-4	MW-04	D	Water	6020	500-102116
500-29848-5	MW-05	D	Water	6020	500-102116
Analysis Batch:500-102214					
LCS 500-102116/2-A	Lab Control Sample	S	Water	6020	500-102116
MB 500-102116/1-A	Method Blank	S	Water	6020	500-102116
500-29848-1	MW-01	D	Water	6020	500-102116
500-29848-2	MW-02	D	Water	6020	500-102116
500-29848-2DU	Duplicate	D	Water	6020	500-102116
500-29848-2MS	Matrix Spike	D	Water	6020	500-102116
500-29848-2MSD	Matrix Spike Duplicate	D	Water	6020	500-102116
500-29848-3	MW-03	D	Water	6020	500-102116
500-29848-4	MW-04	D	Water	6020	500-102116
500-29848-5	MW-05	D	Water	6020	500-102116
500-29848-6	MW-06	D	Water	6020	500-102116
500-29848-7	MW-07	D	Water	6020	500-102116
500-29848-8	MW-08	D	Water	6020	500-102116
500-29848-9	MW-09	D	Water	6020	500-102116
500-29848-10	MW-10	D	Water	6020	500-102116
Analysis Batch:500-102240					
500-29848-3	MW-03	D	Water	6020	500-102116
500-29848-4	MW-04	D	Water	6020	500-102116
500-29848-5	MW-05	D	Water	6020	500-102116
500-29848-6	MW-06	D	Water	6020	500-102116
500-29848-7	MW-07	D	Water	6020	500-102116
500-29848-8	MW-08	D	Water	6020	500-102116
500-29848-9	MW-09	D	Water	6020	500-102116
500-29848-10	MW-10	D	Water	6020	500-102116

TestAmerica Chicago

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:500-102257					
LCS 500-102116/2-A	Lab Control Sample	S	Water	6020	500-102116
MB 500-102116/1-A	Method Blank	S	Water	6020	500-102116
500-29848-1	MW-01	D	Water	6020	500-102116
500-29848-2	MW-02	D	Water	6020	500-102116
500-29848-2DU	Duplicate	D	Water	6020	500-102116
500-29848-2MS	Matrix Spike	D	Water	6020	500-102116
500-29848-2MSD	Matrix Spike Duplicate	D	Water	6020	500-102116
500-29848-3	MW-03	D	Water	6020	500-102116
500-29848-4	MW-04	D	Water	6020	500-102116
500-29848-5	MW-05	D	Water	6020	500-102116
500-29848-6	MW-06	D	Water	6020	500-102116
500-29848-7	MW-07	D	Water	6020	500-102116
500-29848-8	MW-08	D	Water	6020	500-102116
500-29848-9	MW-09	D	Water	6020	500-102116
500-29848-10	MW-10	D	Water	6020	500-102116

Report Basis

D = Dissolved

S = Soluble

T = Total

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:500-101897					
LCS 500-101897/2	Lab Control Sample	T	Water	SM 2540C	
MB 500-101897/1	Method Blank	T	Water	SM 2540C	
500-29848-1	MW-01	D	Water	SM 2540C	
500-29848-1DU	Duplicate	D	Water	SM 2540C	
500-29848-1MS	Matrix Spike	D	Water	SM 2540C	
500-29848-2	MW-02	D	Water	SM 2540C	
500-29848-3	MW-03	D	Water	SM 2540C	
500-29848-4	MW-04	D	Water	SM 2540C	
500-29848-5	MW-05	D	Water	SM 2540C	
500-29848-6	MW-06	D	Water	SM 2540C	
500-29848-7	MW-07	D	Water	SM 2540C	
500-29848-8	MW-08	D	Water	SM 2540C	
500-29848-9	MW-09	D	Water	SM 2540C	
500-29848-10	MW-10	D	Water	SM 2540C	
Analysis Batch:500-102007					
LCS 500-102007/4	Lab Control Sample	T	Water	SM 4500 NO2 B	
MB 500-102007/3	Method Blank	T	Water	SM 4500 NO2 B	
500-29848-1	MW-01	D	Water	SM 4500 NO2 B	
500-29848-1MS	Matrix Spike	D	Water	SM 4500 NO2 B	
500-29848-1MSD	Matrix Spike Duplicate	D	Water	SM 4500 NO2 B	
500-29848-2	MW-02	D	Water	SM 4500 NO2 B	
500-29848-3	MW-03	D	Water	SM 4500 NO2 B	
500-29848-4	MW-04	D	Water	SM 4500 NO2 B	
500-29848-5	MW-05	D	Water	SM 4500 NO2 B	
500-29848-6	MW-06	D	Water	SM 4500 NO2 B	
500-29848-7	MW-07	D	Water	SM 4500 NO2 B	
500-29848-8	MW-08	D	Water	SM 4500 NO2 B	
500-29848-9	MW-09	D	Water	SM 4500 NO2 B	
500-29848-10	MW-10	D	Water	SM 4500 NO2 B	
Analysis Batch:500-102133					
LCS 500-102133/29	Lab Control Sample	T	Water	SM 4500 NO3 F	
MB 500-102133/28	Method Blank	T	Water	SM 4500 NO3 F	
500-29848-1	MW-01	D	Water	SM 4500 NO3 F	
500-29848-2	MW-02	D	Water	SM 4500 NO3 F	
500-29848-3	MW-03	D	Water	SM 4500 NO3 F	
500-29848-4	MW-04	D	Water	SM 4500 NO3 F	
500-29848-5	MW-05	D	Water	SM 4500 NO3 F	
500-29848-6	MW-06	D	Water	SM 4500 NO3 F	
500-29848-7	MW-07	D	Water	SM 4500 NO3 F	
500-29848-8	MW-08	D	Water	SM 4500 NO3 F	
500-29848-10	MW-10	D	Water	SM 4500 NO3 F	

TestAmerica Chicago

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report			Prep Batch		
		Basis	Client Matrix	Method			
General Chemistry							
Analysis Batch:500-102140							
500-29848-1	MW-01	D	Water	Nitrate by calc			
500-29848-2	MW-02	D	Water	Nitrate by calc			
500-29848-3	MW-03	D	Water	Nitrate by calc			
500-29848-4	MW-04	D	Water	Nitrate by calc			
500-29848-5	MW-05	D	Water	Nitrate by calc			
500-29848-6	MW-06	D	Water	Nitrate by calc			
500-29848-7	MW-07	D	Water	Nitrate by calc			
500-29848-8	MW-08	D	Water	Nitrate by calc			
500-29848-10	MW-10	D	Water	Nitrate by calc			
Analysis Batch:500-102195							
LCS 500-102195/4	Lab Control Sample	T	Water	9038			
MB 500-102195/3	Method Blank	T	Water	9038			
500-29848-1	MW-01	D	Water	9038			
500-29848-2	MW-02	D	Water	9038			
500-29848-3	MW-03	D	Water	9038			
500-29848-4	MW-04	D	Water	9038			
500-29848-5	MW-05	D	Water	9038			
500-29848-6	MW-06	D	Water	9038			
500-29848-7	MW-07	D	Water	9038			
500-29848-8	MW-08	D	Water	9038			
500-29848-9	MW-09	D	Water	9038			
500-29848-10	MW-10	D	Water	9038			
Prep Batch: 500-102232							
HLCS 500-102232/3-A	High Level Control Sample	T	Water	9010B			
LCS 500-102232/2-A	Lab Control Sample	T	Water	9010B			
LLCS 500-102232/4-A	Low Level Control Sample	T	Water	9010B			
MB 500-102232/1-A	Method Blank	T	Water	9010B			
500-29848-1	MW-01	D	Water	9010B			
500-29848-2	MW-02	D	Water	9010B			
500-29848-3	MW-03	D	Water	9010B			
500-29848-4	MW-04	D	Water	9010B			
500-29848-5	MW-05	D	Water	9010B			
500-29848-6	MW-06	D	Water	9010B			
500-29848-7	MW-07	D	Water	9010B			
500-29848-8	MW-08	D	Water	9010B			
500-29848-9	MW-09	D	Water	9010B			
500-29848-10	MW-10	D	Water	9010B			

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report				
		Basis	Client Matrix	Method	Prep Batch	
General Chemistry						
Analysis Batch:500-102260						
LCS 500-102260/4	Lab Control Sample	T	Water	SM 4500 F C		
MB 500-102260/3	Method Blank	T	Water	SM 4500 F C		
500-29848-1	MW-01	D	Water	SM 4500 F C		
500-29848-1MS	Matrix Spike	D	Water	SM 4500 F C		
500-29848-1MSD	Matrix Spike Duplicate	D	Water	SM 4500 F C		
500-29848-2	MW-02	D	Water	SM 4500 F C		
500-29848-3	MW-03	D	Water	SM 4500 F C		
500-29848-4	MW-04	D	Water	SM 4500 F C		
500-29848-5	MW-05	D	Water	SM 4500 F C		
500-29848-6	MW-06	D	Water	SM 4500 F C		
500-29848-7	MW-07	D	Water	SM 4500 F C		
500-29848-8	MW-08	D	Water	SM 4500 F C		
500-29848-9	MW-09	D	Water	SM 4500 F C		
500-29848-10	MW-10	D	Water	SM 4500 F C		
Analysis Batch:500-102269						
HLCS 500-102232/3-A	High Level Control Sample	T	Water	9014	500-102232	
LCS 500-102232/2-A	Lab Control Sample	T	Water	9014	500-102232	
LLCS 500-102232/4-A	Low Level Control Sample	T	Water	9014	500-102232	
MB 500-102232/1-A	Method Blank	T	Water	9014	500-102232	
500-29848-1	MW-01	D	Water	9014	500-102232	
500-29848-2	MW-02	D	Water	9014	500-102232	
500-29848-3	MW-03	D	Water	9014	500-102232	
500-29848-4	MW-04	D	Water	9014	500-102232	
500-29848-5	MW-05	D	Water	9014	500-102232	
500-29848-6	MW-06	D	Water	9014	500-102232	
500-29848-7	MW-07	D	Water	9014	500-102232	
500-29848-8	MW-08	D	Water	9014	500-102232	
500-29848-9	MW-09	D	Water	9014	500-102232	
500-29848-10	MW-10	D	Water	9014	500-102232	
Analysis Batch:500-102427						
LCS 500-102427/23	Lab Control Sample	T	Water	SM 4500 NO3 F		
MB 500-102427/22	Method Blank	T	Water	SM 4500 NO3 F		
500-29848-9	MW-09	D	Water	SM 4500 NO3 F		
Analysis Batch:500-102452						
500-29848-9	MW-09	D	Water	Nitrate by calc		

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:500-102659					
LCS 500-102659/12	Lab Control Sample	T	Water	9251	
MB 500-102659/11	Method Blank	T	Water	9251	
500-29848-1	MW-01	D	Water	9251	
500-29848-2	MW-02	D	Water	9251	
500-29848-3	MW-03	D	Water	9251	
500-29848-4	MW-04	D	Water	9251	
500-29848-5	MW-05	D	Water	9251	
500-29848-6	MW-06	D	Water	9251	
500-29848-7	MW-07	D	Water	9251	
500-29848-8	MW-08	D	Water	9251	
500-29848-9	MW-09	D	Water	9251	
500-29848-10	MW-10	D	Water	9251	

Report Basis

D = Dissolved

T = Total

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102116

Lab Sample ID: MB 500-102116/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1313
Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102144
Prep Batch: 500-102116
Units: mg/L

Method: 6020
Preparation: Soluble Metals
Soluble

Instrument ID: ICPMS2
Lab File ID: MS2121710BB.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Beryllium	<0.0010		0.0010

Method Blank - Batch: 500-102116

Lab Sample ID: MB 500-102116/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1754
Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102214
Prep Batch: 500-102116
Units: mg/L

Method: 6020
Preparation: Soluble Metals
Soluble

Instrument ID: ICPMS2
Lab File ID: MS2121710C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Antimony	<0.0030	^	0.0030
Arsenic	<0.0010		0.0010
Barium	<0.0025		0.0025
Cadmium	<0.00050		0.00050
Chromium	<0.0050		0.0050
Cobalt	<0.0010		0.0010
Copper	<0.0020		0.0020
Iron	<0.10		0.10
Lead	<0.00050		0.00050
Manganese	<0.0025		0.0025
Nickel	<0.0020		0.0020
Selenium	<0.0025		0.0025
Silver	<0.00050		0.00050
Thallium	<0.0020		0.0020
Zinc	<0.020		0.020

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102116

Lab Sample ID: MB 500-102116/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/20/2010 1422
Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102257
Prep Batch: 500-102116
Units: mg/L

Method: 6020

Preparation: Soluble Metals
Soluble

Instrument ID: ICPMS2
Lab File ID: MS2122010C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Boron	<0.050		0.050

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Control Sample - Batch: 500-102116

Lab Sample ID: LCS 500-102116/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1315
Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102144
Prep Batch: 500-102116
Units: mg/L

Method: 6020
Preparation: Soluble Metals
Soluble

Instrument ID: ICPMS2
Lab File ID: MS2121710BB.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Beryllium	0.0500	0.0469	94	80 - 120	

Lab Control Sample - Batch: 500-102116

Lab Sample ID: LCS 500-102116/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1757
Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102214
Prep Batch: 500-102116
Units: mg/L

Method: 6020
Preparation: Soluble Metals
Soluble

Instrument ID: ICPMS2
Lab File ID: MS2121710C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.500	0.445	89	80 - 120	
Arsenic	0.100	0.0996	100	80 - 120	
Barium	0.500	0.494	99	80 - 120	
Cadmium	0.0500	0.0505	101	80 - 120	
Chromium	0.200	0.197	98	80 - 120	
Cobalt	0.500	0.497	99	80 - 120	
Copper	0.250	0.260	104	80 - 120	
Iron	1.00	0.923	92	80 - 120	
Lead	0.100	0.102	102	80 - 120	
Manganese	0.500	0.513	103	80 - 120	
Nickel	0.500	0.513	103	80 - 120	
Selenium	0.100	0.104	104	80 - 120	
Silver	0.0500	0.0504	101	80 - 120	
Thallium	0.100	0.106	106	80 - 120	
Zinc	0.500	0.520	104	80 - 120	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Control Sample - Batch: 500-102116

Method: 6020

Preparation: Soluble Metals
Soluble

Lab Sample ID: LCS 500-102116/2-A

Analysis Batch: 500-102257

Instrument ID: ICPMS2

Client Matrix: Water

Prep Batch: 500-102116

Lab File ID: MS2122010C.csv

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 1.0 mL

Date Analyzed: 12/20/2010 1423

Final Weight/Volume: 1.0 mL

Date Prepared: 12/17/2010 1051

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Boron	1.00	1.03	103	80 - 120	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 500-102116

Method: 6020
Preparation: Soluble Metals
Dissolved

MS Lab Sample ID: 500-29848-2 Analysis Batch: 500-102144
Client Matrix: Water Prep Batch: 500-102116
Dilution: 1.0
Date Analyzed: 12/17/2010 1337
Date Prepared: 12/17/2010 1051

Instrument ID: ICPMS2
Lab File ID: MS2121710BB.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

MSD Lab Sample ID: 500-29848-2 Analysis Batch: 500-102144
Client Matrix: Water Prep Batch: 500-102116
Dilution: 1.0
Date Analyzed: 12/17/2010 1339
Date Prepared: 12/17/2010 1051

Instrument ID: ICPMS2
Lab File ID: MS2121710BB.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Beryllium	103	105	75 - 125	2	20		

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 500-102116

Method: 6020
Preparation: Soluble Metals
Dissolved

MS Lab Sample ID: 500-29848-2 Analysis Batch: 500-102214
Client Matrix: Water Prep Batch: 500-102116
Dilution: 1.0
Date Analyzed: 12/17/2010 1815
Date Prepared: 12/17/2010 1051

Instrument ID: ICPMS2
Lab File ID: MS2121710C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

MSD Lab Sample ID: 500-29848-2 Analysis Batch: 500-102214
Client Matrix: Water Prep Batch: 500-102116
Dilution: 1.0
Date Analyzed: 12/17/2010 1817
Date Prepared: 12/17/2010 1051

Instrument ID: ICPMS2
Lab File ID: MS2121710C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Antimony	83	91	75 - 125	10	20	^	^
Arsenic	113	112	75 - 125	1	20		
Barium	98	99	75 - 125	1	20		
Cadmium	99	101	75 - 125	1	20		
Chromium	95	95	75 - 125	0	20		
Cobalt	94	94	75 - 125	0	20		
Copper	96	96	75 - 125	0	20		
Iron	90	90	75 - 125	1	20		
Lead	102	102	75 - 125	1	20		
Manganese	101	100	75 - 125	0	20		
Nickel	96	96	75 - 125	0	20		
Selenium	127	127	75 - 125	1	20	F	F
Silver	86	84	75 - 125	3	20		
Thallium	107	107	75 - 125	1	20		
Zinc	104	103	75 - 125	0	20		

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 500-102116

Method: 6020
Preparation: Soluble Metals
Dissolved

MS Lab Sample ID: 500-29848-2 Analysis Batch: 500-102257
Client Matrix: Water Prep Batch: 500-102116
Dilution: 5.0
Date Analyzed: 12/20/2010 1429
Date Prepared: 12/17/2010 1051

Instrument ID: ICPMS2
Lab File ID: MS2122010C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

MSD Lab Sample ID: 500-29848-2 Analysis Batch: 500-102257
Client Matrix: Water Prep Batch: 500-102116
Dilution: 5.0
Date Analyzed: 12/20/2010 1432
Date Prepared: 12/17/2010 1051

Instrument ID: ICPMS2
Lab File ID: MS2122010C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Boron	110	104	75 - 125	2	20		

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Duplicate - Batch: 500-102116

Lab Sample ID: 500-29848-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1335
Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102144
Prep Batch: 500-102116
Units: mg/L

Method: 6020

Preparation: Soluble Metals Dissolved

Instrument ID: ICPMS2
Lab File ID: MS2121710BB.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Beryllium	<0.0010	<0.0010	NC	20	

Duplicate - Batch: 500-102116

Lab Sample ID: 500-29848-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1812
Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102214
Prep Batch: 500-102116
Units: mg/L

Method: 6020

Preparation: Soluble Metals Dissolved

Instrument ID: ICPMS2
Lab File ID: MS2121710C.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	<0.0030	<0.0030	NC	20	^
Arsenic	0.0052	0.00522	0.4	20	
Barium	0.061	0.0589	3	20	
Cadmium	<0.00050	<0.00050	NC	20	
Chromium	<0.0050	<0.0050	NC	20	
Cobalt	<0.0010	<0.0010	NC	20	
Copper	<0.0020	<0.0020	NC	20	
Iron	<0.10	<0.10	NC	20	
Lead	<0.00050	<0.00050	NC	20	
Manganese	0.032	0.0338	4	20	
Nickel	<0.0020	<0.0020	NC	20	
Selenium	<0.0025	<0.0025	NC	20	
Silver	<0.00050	<0.00050	NC	20	
Thallium	<0.0020	<0.0020	NC	20	
Zinc	<0.020	<0.020	NC	20	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Duplicate - Batch: 500-102116

Lab Sample ID: 500-29848-2

Client Matrix: Water

Dilution: 5.0

Date Analyzed: 12/20/2010 1428

Date Prepared: 12/17/2010 1051

Analysis Batch: 500-102257

Prep Batch: 500-102116

Units: mg/L

Method: 6020

**Preparation: Soluble Metals
Dissolved**

Instrument ID: ICPMS2

Lab File ID: MS2122010C.csv

Initial Weight/Volume: 1.0 mL

Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Boron	1.8	1.81	0.2	20	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-101907

Method: 7470A
Preparation: 7470A

Lab Sample ID: MB 500-101907/7-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/15/2010 1323
Date Prepared: 12/15/2010 0735

Analysis Batch: 500-101962
Prep Batch: 500-101907
Units: mg/L

Instrument ID: HG6
Lab File ID: 121510R.CSV
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	RL
Mercury	<0.00020		0.00020

Lab Control Sample - Batch: 500-101907

Method: 7470A
Preparation: 7470A

Lab Sample ID: LCS 500-101907/8-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/15/2010 1325
Date Prepared: 12/15/2010 0735

Analysis Batch: 500-101962
Prep Batch: 500-101907
Units: mg/L

Instrument ID: HG6
Lab File ID: 121510R.CSV
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00200	0.00208	104	80 - 120	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102232

Method: 9014
Preparation: 9010B

Lab Sample ID: MB 500-102232/1-A

Analysis Batch: 500-102269

Instrument ID: SPEC5

Client Matrix: Water

Prep Batch: 500-102232

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 12/20/2010 1525

Final Weight/Volume: 50 mL

Date Prepared: 12/20/2010 1110

Analyte	Result	Qual	RL
Cyanide, Total-Dissolved	<0.010		0.010

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Lab Control Sample - Batch: 500-102232

Method: 9014
Preparation: 9010B

Lab Sample ID: LCS 500-102232/2-A Analysis Batch: 500-102269
Client Matrix: Water Prep Batch: 500-102232
Dilution: 1.0 Units: mg/L
Date Analyzed: 12/20/2010 1525
Date Prepared: 12/20/2010 1110

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total-Dissolved	0.100	0.100	100	80 - 120	

High Level Control Sample - Batch: 500-102232

Method: 9014
Preparation: 9010B

Lab Sample ID: HLCS 500-102232/3-A Analysis Batch: 500-102269
Client Matrix: Water Prep Batch: 500-102232
Dilution: 1.0 Units: mg/L
Date Analyzed: 12/20/2010 1526
Date Prepared: 12/20/2010 1110

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total-Dissolved	0.400	0.395	99	90 - 110	

Low Level Control Sample - Batch: 500-102232

Method: 9014
Preparation: 9010B

Lab Sample ID: LLCS 500-102232/4-A Analysis Batch: 500-102269
Client Matrix: Water Prep Batch: 500-102232
Dilution: 1.0 Units: mg/L
Date Analyzed: 12/20/2010 1526
Date Prepared: 12/20/2010 1110

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cyanide, Total-Dissolved	0.0400	0.0416	104	75 - 125	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102195

Method: 9038

Preparation: N/A

Lab Sample ID: MB 500-102195/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/19/2010 2024
Date Prepared: N/A

Analysis Batch: 500-102195
Prep Batch: N/A
Units: mg/L

Instrument ID: SPEC3
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Sulfate-Dissolved	<5.0		5.0

Lab Control Sample - Batch: 500-102195

Method: 9038

Preparation: N/A

Lab Sample ID: LCS 500-102195/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/19/2010 2025
Date Prepared: N/A

Analysis Batch: 500-102195
Prep Batch: N/A
Units: mg/L

Instrument ID: SPEC3
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate-Dissolved	20.0	18.8	94	80 - 120	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102659

Method: 9251

Preparation: N/A

Lab Sample ID: MB 500-102659/11
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/28/2010 1237
Date Prepared: N/A

Analysis Batch: 500-102659
Prep Batch: N/A
Units: mg/L

Instrument ID: AQ2
Lab File ID: 2010-12-28-13-5-1.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Chloride-Dissolved	<2.0		2.0

Lab Control Sample - Batch: 500-102659

Method: 9251

Preparation: N/A

Lab Sample ID: LCS 500-102659/12
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/28/2010 1238
Date Prepared: N/A

Analysis Batch: 500-102659
Prep Batch: N/A
Units: mg/L

Instrument ID: AQ2
Lab File ID: 2010-12-28-13-5-1.csv
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chloride-Dissolved	50.0	50.6	101	80 - 120	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-101897

Method: SM 2540C

Preparation: N/A

Lab Sample ID: MB 500-101897/1

Analysis Batch: 500-101897

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 12/14/2010 2238

Final Weight/Volume: 50 mL

Date Prepared: N/A

Analyte	Result	Qual	RL
Total Dissolved Solids-Dissolved	<10		10

Lab Control Sample - Batch: 500-101897

Method: SM 2540C

Preparation: N/A

Lab Sample ID: LCS 500-101897/2

Analysis Batch: 500-101897

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 12/14/2010 2241

Final Weight/Volume: 50 mL

Date Prepared: N/A

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids-Dissolved	250	236	94	80 - 120	

Matrix Spike - Batch: 500-101897

Method: SM 2540C

Preparation: N/A

Lab Sample ID: 500-29848-1

Analysis Batch: 500-101897

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 12/14/2010 2250

Final Weight/Volume: 50 mL

Date Prepared: N/A

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Total Dissolved Solids-Dissolved	1100	250	1300	96	75 - 125	4

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Duplicate - Batch: 500-101897

Method: SM 2540C

Preparation: N/A

Lab Sample ID: 500-29848-1

Analysis Batch: 500-101897

Instrument ID: No Equipment Assigned

Client Matrix: Water

Prep Batch: N/A

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 12/14/2010 2247

Final Weight/Volume: 50 mL

Date Prepared: N/A

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Dissolved Solids-Dissolved	1100	1040	2	20	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102260

Method: SM 4500 F C

Preparation: N/A

Lab Sample ID: MB 500-102260/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/20/2010 1331
Date Prepared: N/A

Analysis Batch: 500-102260
Prep Batch: N/A
Units: mg/L

Instrument ID: PC-Titrate
Lab File ID: 10122000.txt
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Fluoride-Dissolved	<0.10		0.10

Lab Control Sample - Batch: 500-102260

Method: SM 4500 F C

Preparation: N/A

Lab Sample ID: LCS 500-102260/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/20/2010 1334
Date Prepared: N/A

Analysis Batch: 500-102260
Prep Batch: N/A
Units: mg/L

Instrument ID: PC-Titrate
Lab File ID: 10122000.txt
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Fluoride-Dissolved	10.0	10.4	104	80 - 120	

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 500-102260

Method: SM 4500 F C

Preparation: N/A

MS Lab Sample ID: 500-29848-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/20/2010 1415
Date Prepared: N/A

Analysis Batch: 500-102260
Prep Batch: N/A

Instrument ID: PC-Titrate
Lab File ID: 10122000.txt
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 500-29848-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/20/2010 1418
Date Prepared: N/A

Analysis Batch: 500-102260
Prep Batch: N/A

Instrument ID: PC-Titrate
Lab File ID: 10122000.txt
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Fluoride-Dissolved	101	100	75 - 125	1	20		

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102007

Method: SM 4500 NO2 B

Preparation: N/A

Lab Sample ID: MB 500-102007/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/15/2010 0940
Date Prepared: N/A

Analysis Batch: 500-102007
Prep Batch: N/A
Units: mg/L

Instrument ID: SPEC5
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Nitrogen, Nitrite-Dissolved	<0.020		0.020

Lab Control Sample - Batch: 500-102007

Method: SM 4500 NO2 B

Preparation: N/A

Lab Sample ID: LCS 500-102007/4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/15/2010 0940
Date Prepared: N/A

Analysis Batch: 500-102007
Prep Batch: N/A
Units: mg/L

Instrument ID: SPEC5
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrogen, Nitrite-Dissolved	0.100	0.0983	98	80 - 120	

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 500-102007

Method: SM 4500 NO2 B

Preparation: N/A

MS Lab Sample ID: 500-29848-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/15/2010 0941
Date Prepared: N/A

Analysis Batch: 500-102007
Prep Batch: N/A

Instrument ID: SPEC5
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 500-29848-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/15/2010 0941
Date Prepared: N/A

Analysis Batch: 500-102007
Prep Batch: N/A

Instrument ID: SPEC5
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrogen, Nitrite-Dissolved	92	94	75 - 125	2	20		

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102133

Method: SM 4500 NO3 F

Preparation: N/A

Lab Sample ID: MB 500-102133/28
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1137
Date Prepared: N/A

Analysis Batch: 500-102133
Prep Batch: N/A
Units: mg/L

Instrument ID: AQ2
Lab File ID: 2010-12-17-12-27-19.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Nitrogen, Nitrate Nitrite-Dissolved	<0.10		0.10

Lab Control Sample - Batch: 500-102133

Method: SM 4500 NO3 F

Preparation: N/A

Lab Sample ID: LCS 500-102133/29
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/17/2010 1139
Date Prepared: N/A

Analysis Batch: 500-102133
Prep Batch: N/A
Units: mg/L

Instrument ID: AQ2
Lab File ID: 2010-12-17-12-27-19.csv
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrogen, Nitrate Nitrite-Dissolved	1.00	0.990	99	80 - 120	

Quality Control Results

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

Method Blank - Batch: 500-102427

Method: SM 4500 NO3 F

Preparation: N/A

Lab Sample ID: MB 500-102427/22
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/22/2010 1036
Date Prepared: N/A

Analysis Batch: 500-102427
Prep Batch: N/A
Units: mg/L

Instrument ID: AQ2
Lab File ID: 2010-12-22-11-37-39.csv
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Nitrogen, Nitrate Nitrite-Dissolved	<0.10		0.10

Lab Control Sample - Batch: 500-102427

Method: SM 4500 NO3 F

Preparation: N/A

Lab Sample ID: LCS 500-102427/23
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/22/2010 1038
Date Prepared: N/A

Analysis Batch: 500-102427
Prep Batch: N/A
Units: mg/L

Instrument ID: AQ2
Lab File ID: 2010-12-22-11-37-39.csv
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrogen, Nitrate Nitrite-Dissolved	1.00	1.06	106	80 - 120	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

(optional)
 Report To: Andrew GAYNON
 Contact: Patrick Eng
 Company: Patrck Eng
 Address: 4985 Varsity Drive
 Address: Lisle, IL 60532
 Phone: 630-795-7359
 Fax: 630-724-9290
 E-Mail: A Gaynon@PatrckEnginc.com
 POM/Reference#:

(optional)
 Bill To: _____
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____

Chain of Custody Record

Lab Job #: 500-29848

Chain of Custody Number: _____

Page _____ of _____

Temperature °C of Cooler: (3.3) (3.5)

Lab ID	MS-MSD	Sample ID	Sampling		# of Containers	Matrix	Preservative	Sulfuric Acid	Nitric Acid	Sodium Hydroxide	Cyanide	Dissolved Nitrogen	Dissolved Metals	Dissolved NO ₂	Dissolved NO ₃ -NO ₂	Preservative Key	
			Date	Time													
1	MW-01		12/13/10	14:00	5	W	X	X	X	X	X						1. HCl, Cool to 4°
2	MW-02			13:15													2. H ₂ SO ₄ , Cool to 4°
3	MW-03			12:30													3. HNO ₃ , Cool to 4°
4	MW-04			12:00													4. NaOH, Cool to 4°
5	MW-05			11:30													5. NaOH/Zn, Cool to 4°
6	MW-06			9:45													6. NaHSO ₄
7	MW-07			14:45													7. Cool to 4°
8	MW-08			15:55													8. None
9	MW-09			15:25													9. Other
10	MW-10			10:45	↓			↓	↓	↓	↓	↓	↓	↓	↓		Comments

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other

Sample Disposal

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

Requested Due Date: _____

Refrigerated By	Company	Date	Time	Received By	Company	Date	Time	Lab Courier
Dave Eng	Patrck Eng	12/13/10	1255	Jlt	TB	12/14/10	1255	
Refrigerated By	Company	Date	Time	Received By	Company	Date	Time	Shipped

Refrigerated By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered
Matrix Key	Client Comments							PEI

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

Login Sample Receipt Check List

Client: Midwest Generation EME LLC

Job Number: 500-29848-1

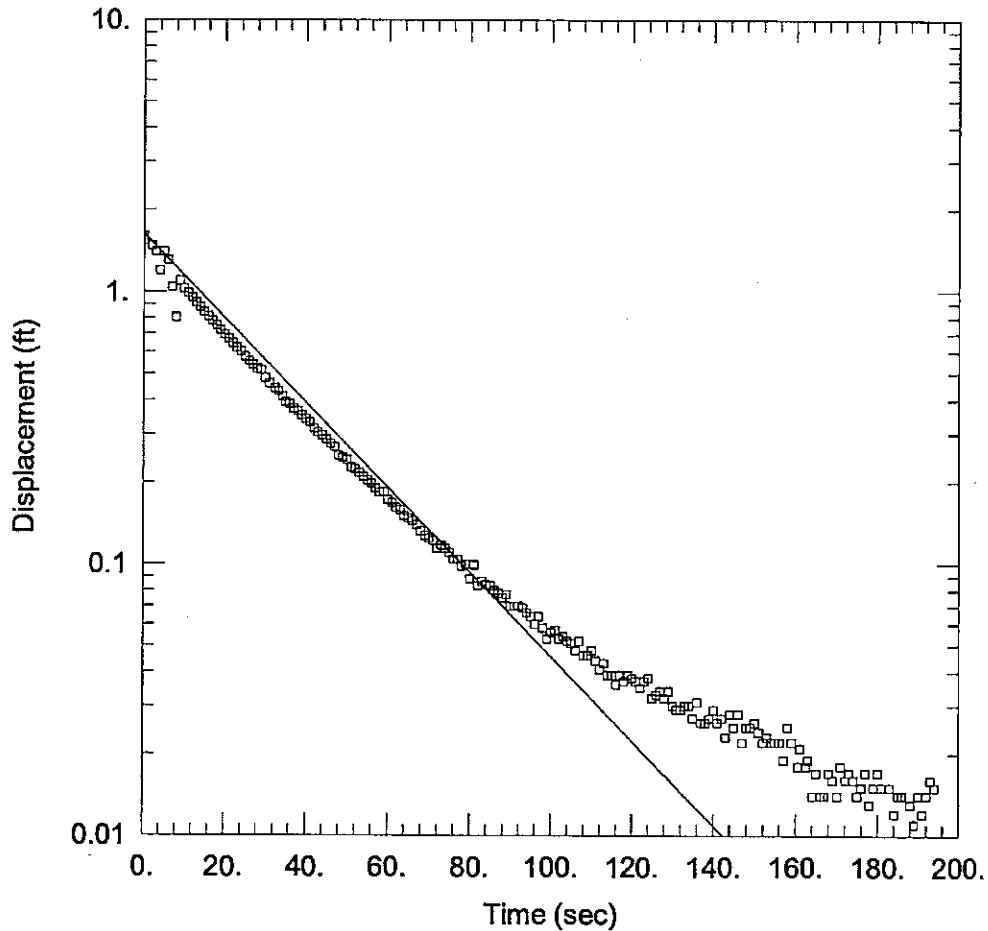
Login Number: 29848

List Source: TestAmerica Chicago

Creator: Lunt, Jeff T

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.3,3.5
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



WELL TEST ANALYSIS

Data Set: P:\...\well mw-1 d1.aqt
Date: 02/18/11

Time: 14:59:40

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

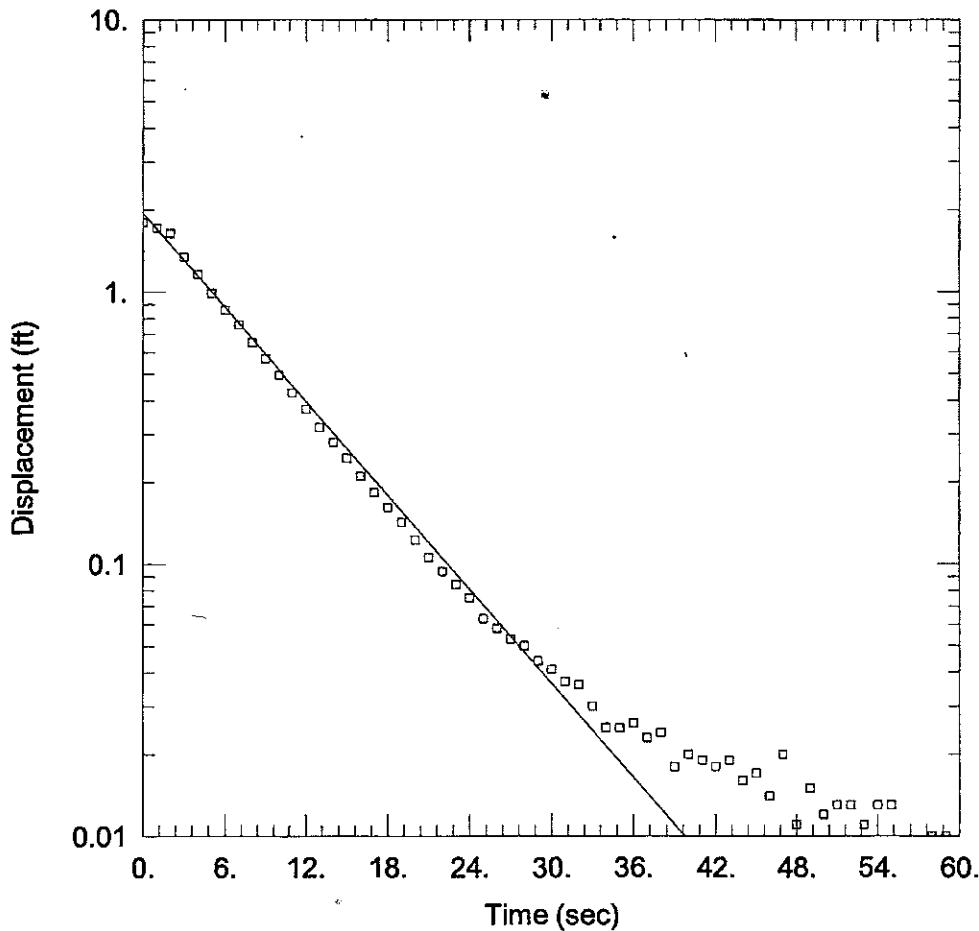
Saturated Thickness: 12.57 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1 (d1))

Initial Displacement: <u>1.6</u> ft	Static Water Column Height: <u>12.57</u> ft
Total Well Penetration Depth: <u>22.</u> ft	Screen Length: <u>10.</u> ft
Casing Radius: <u>0.2</u> ft	Well Radius: <u>0.085</u> ft
	Gravel Pack Porosity: <u>0.</u>

SOLUTION

Aquifer Model: <u>Unconfined</u>	Solution Method: <u>Bouwer-Rice</u>
K = <u>0.0002245</u> ft/sec	y0 = <u>1.635</u> ft



WELL TEST ANALYSIS

Data Set: P:\...\well mw-1 u1.aqt
Date: 02/18/11

Time: 14:59:24

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

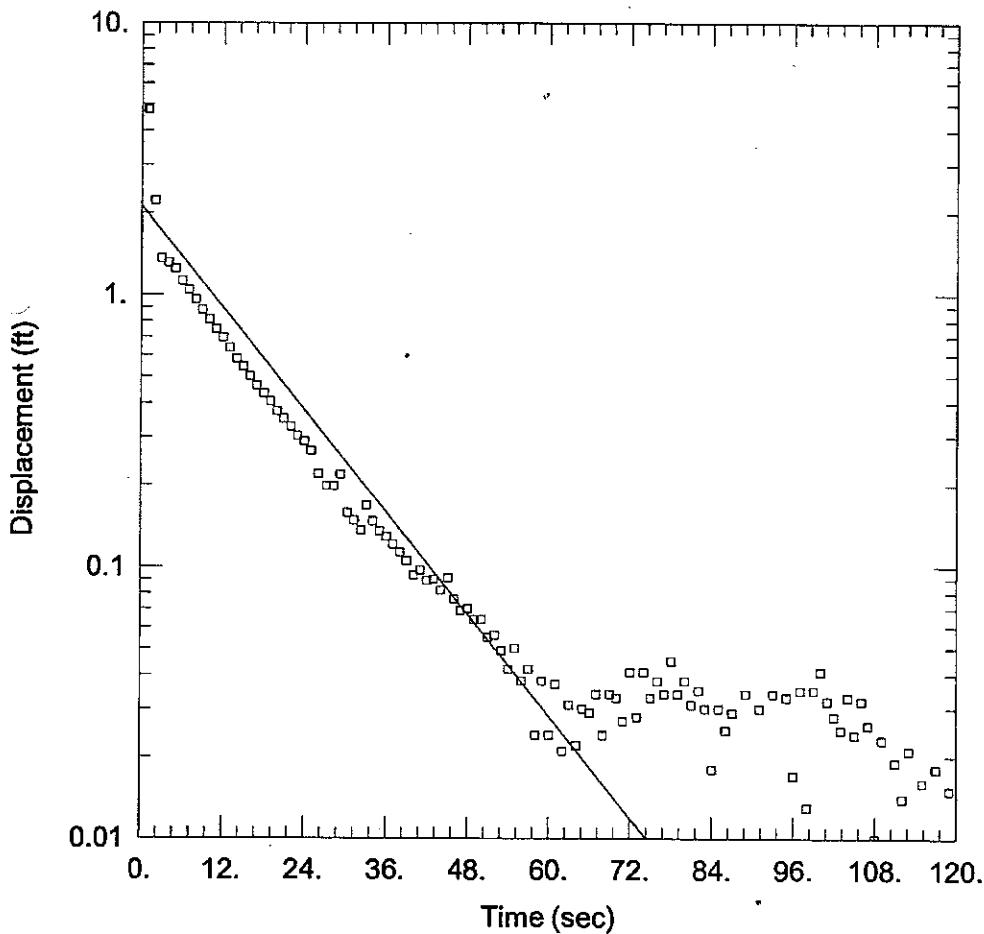
Saturated Thickness: 12.57 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-1 (u1))

Initial Displacement: 1.8 ft Static Water Column Height: 12.57 ft
Total Well Penetration Depth: 22. ft Screen Length: 10. ft
Casing Radius: 0.2 ft Well Radius: 0.085 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.0008312 ft/sec y0 = 1.948 ft



WELL TEST ANALYSIS

Data Set: P:\...\well mw-4 d1.aqt
Date: 02/18/11

Time: 14:59:01

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

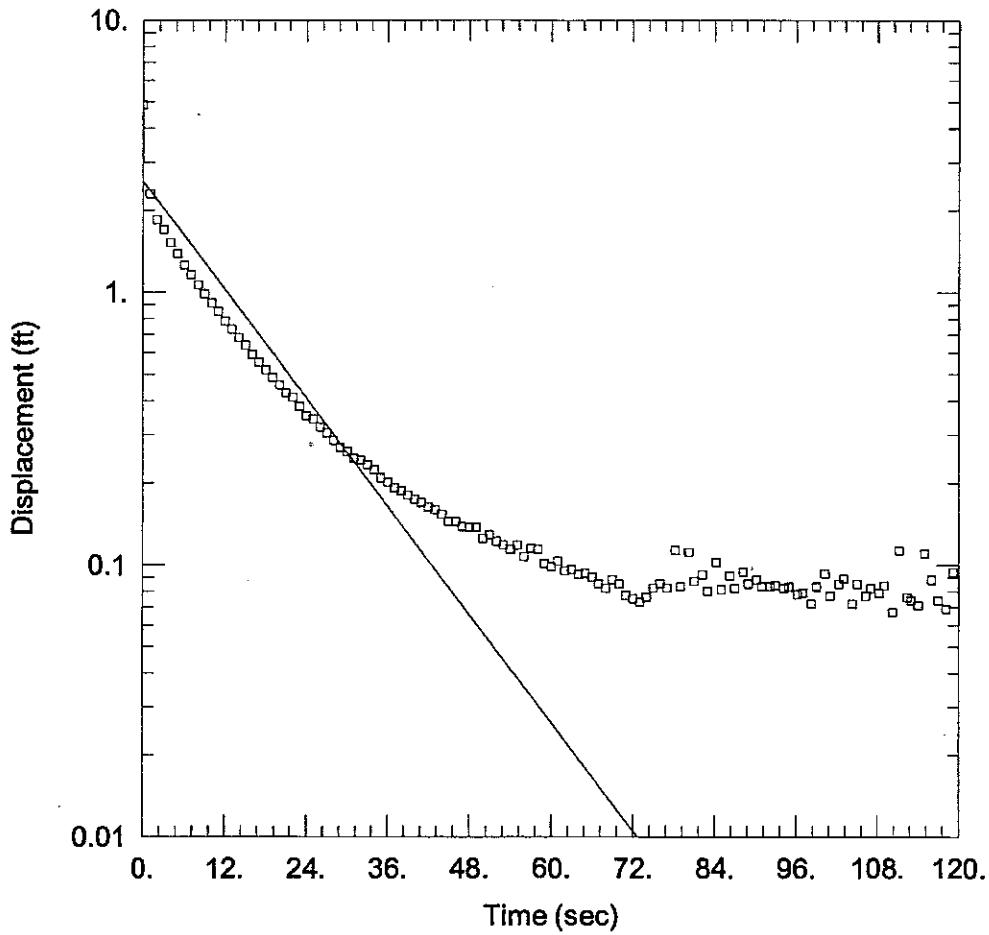
Saturated Thickness: 11.3 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4 (d1))

Initial Displacement: 4.85 ft Static Water Column Height: 11.3 ft
Total Well Penetration Depth: 22.48 ft Screen Length: 10. ft
Casing Radius: 0.2 ft Well Radius: 0.085 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
K = 0.0004525 ft/sec y0 = 2.117 ft



WELL TEST ANALYSIS

Data Set: P:\...\well mw-4 u2.aqt
Date: 02/18/11

Time: 14:58:33

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

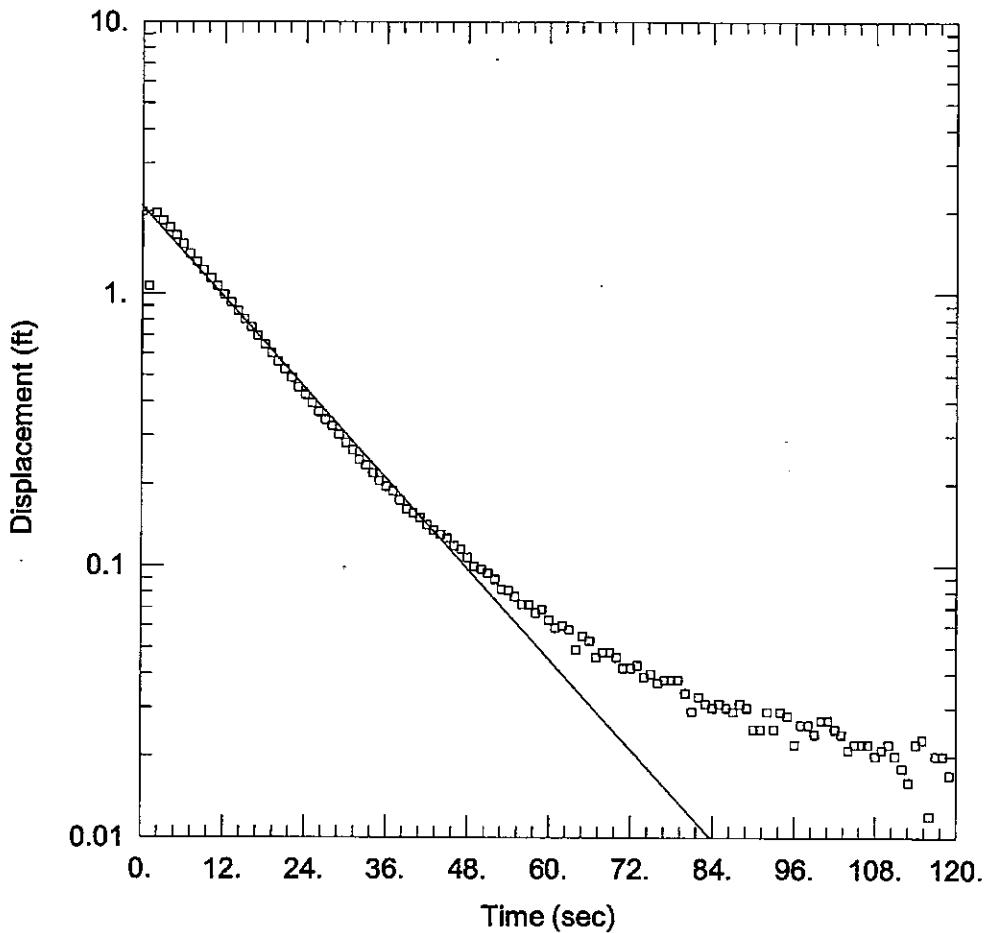
Saturated Thickness: 11.3 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4 (u2))

Initial Displacement: <u>4.87</u> ft	Static Water Column Height: <u>11.3</u> ft
Total Well Penetration Depth: <u>22.48</u> ft	Screen Length: <u>10.</u> ft
Casing Radius: <u>0.2</u> ft	Well Radius: <u>0.085</u> ft
	Gravel Pack Porosity: <u>0.</u>

SOLUTION

Aquifer Model: <u>Unconfined</u>	Solution Method: <u>Bouwer-Rice</u>
K = <u>0.0004797</u> ft/sec	y0 = <u>2.553</u> ft



WELL TEST ANALYSIS

Data Set: P:\...\well mw-6 u2.aqt
Date: 02/18/11

Time: 14:54:43

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

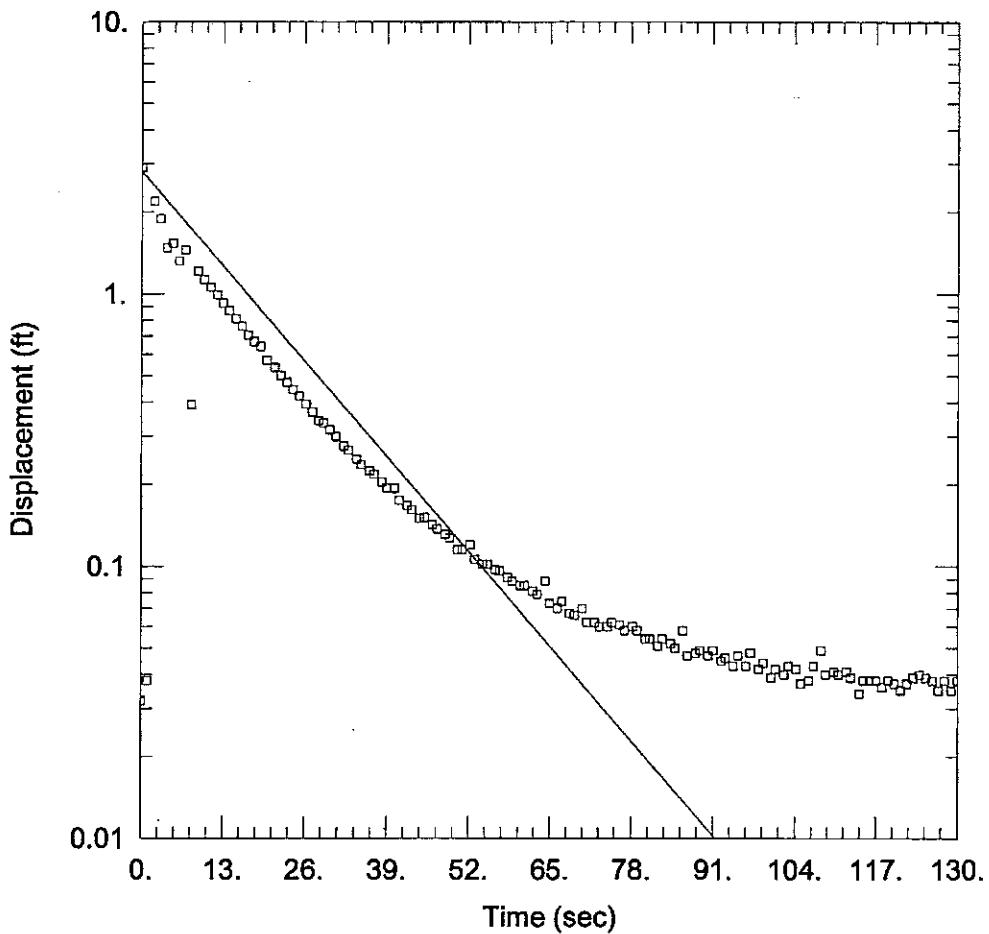
Saturated Thickness: 10.32 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6 (u2))

Initial Displacement: 2. ft	Static Water Column Height: 10.32 ft
Total Well Penetration Depth: 21.15 ft	Screen Length: 10. ft
Casing Radius: 0.2 ft	Well Radius: 0.085 ft
	Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined	Solution Method: Bouwer-Rice
K = 0.0003977 ft/sec	y0 = 2.08 ft



WELL TEST ANALYSIS

Data Set: P:\...\well mw-6 d1.aqt
 Date: 02/18/11

Time: 14:55:01

PROJECT INFORMATION

Company: Patrick Engineering
 Client: Midwest Generation
 Project: 21053.070
 Location: Waukegan
 Test Well: MW-1 (u2)
 Test Date: 12/22/10

AQUIFER DATA

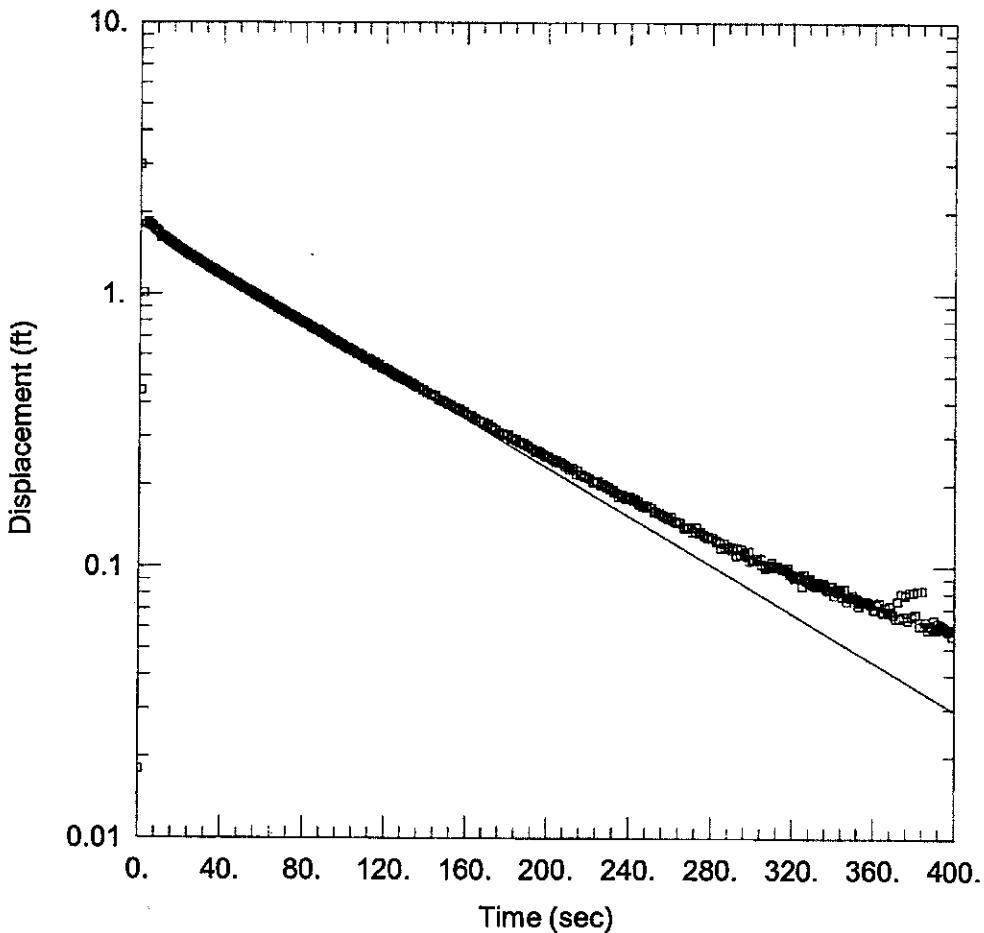
Saturated Thickness: 10.32 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6 (d1))

Initial Displacement: 2.9 ft	Static Water Column Height: 10.32 ft
Total Well Penetration Depth: 21.15 ft	Screen Length: 10. ft
Casing Radius: 0.2 ft	Well Radius: 0.085 ft
	Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined	Solution Method: Bouwer-Rice
K = 0.0003843 ft/sec	y0 = 2.81 ft



WELL TEST ANALYSIS

Data Set: P:\...\will mw-7 d2.aqt
Date: 02/18/11

Time: 15:00:51

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

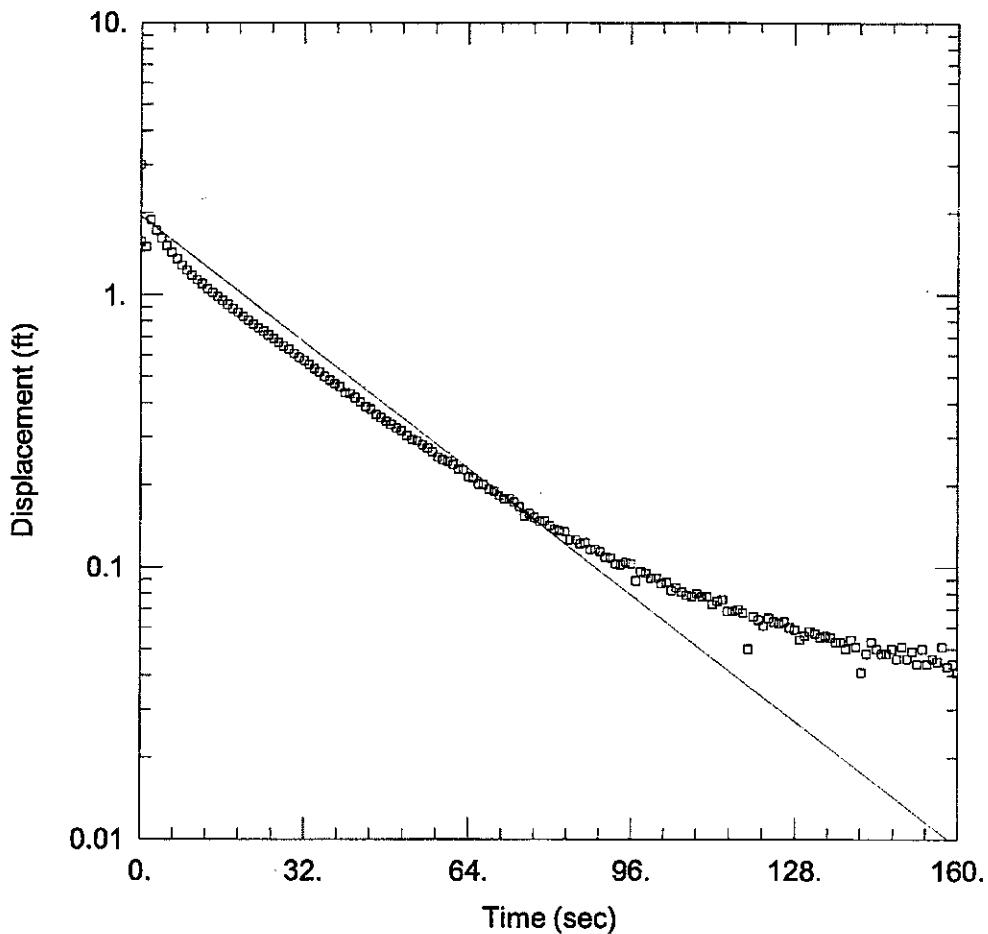
Saturated Thickness: 10.71 ft Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-7 (d2))

Initial Displacement: 3. ft Static Water Column Height: 10.71 ft
Total Well Penetration Depth: 20.81 ft Screen Length: 10. ft
Casing Radius: 0.2 ft Well Radius: 0.085 ft
Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 6.381E-5 \text{ ft/sec}$ $y_0 = 1.796 \text{ ft}$



WELL TEST ANALYSIS

Data Set: P:\...\well mw-7 u2.aqt
Date: 02/18/11

Time: 15:00:31

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

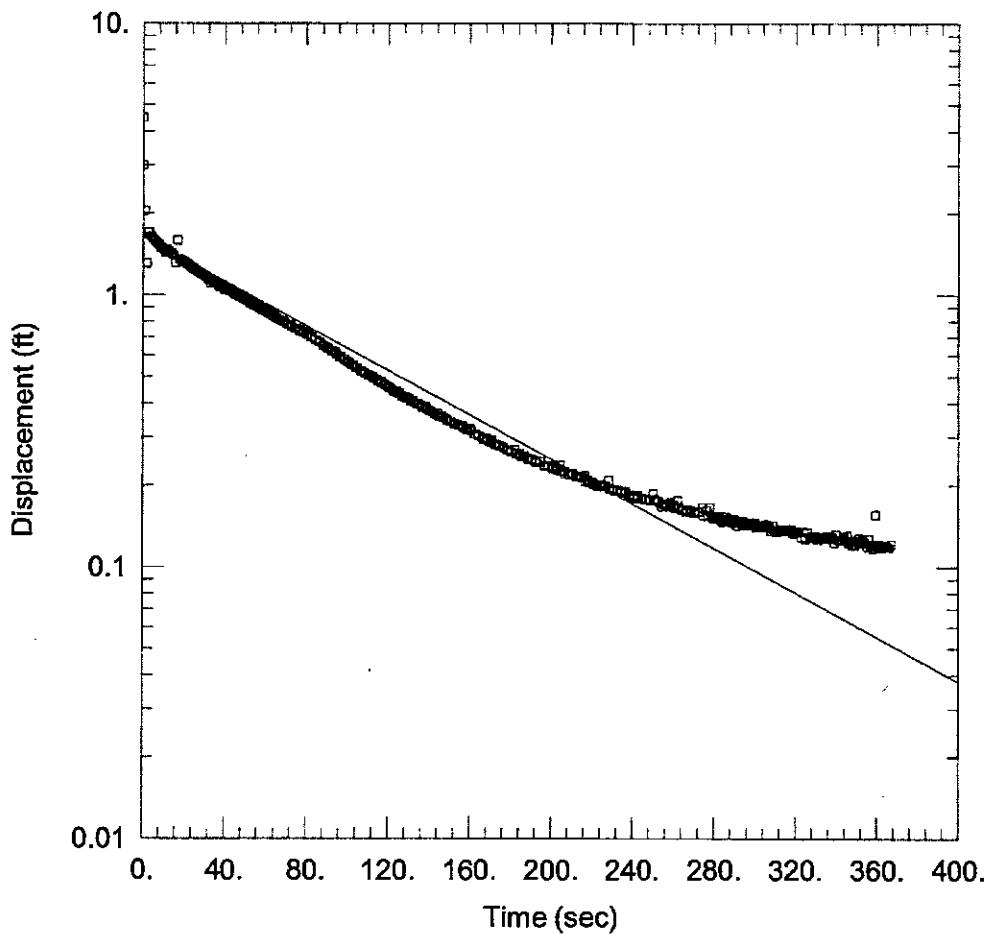
Saturated Thickness: 10.71 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7 (u2))

Initial Displacement: 3. ft	Static Water Column Height: 10.71 ft
Total Well Penetration Depth: 20.81 ft	Screen Length: 10. ft
Casing Radius: 0.2 ft	Well Radius: 0.085 ft
	Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined	Solution Method: Bouwer-Rice
K = 0.0002072 ft/sec	y0 = 1.947 ft



WELL TEST ANALYSIS

Data Set: P:\...\well mw-9 d1.aqt
Date: 02/18/11

Time: 15:03:27

PROJECT INFORMATION

Company: Patrick Engineering
Client: Midwest Generation
Project: 21053.070
Location: Waukegan
Test Well: MW-1 (u2)
Test Date: 12/22/10

AQUIFER DATA

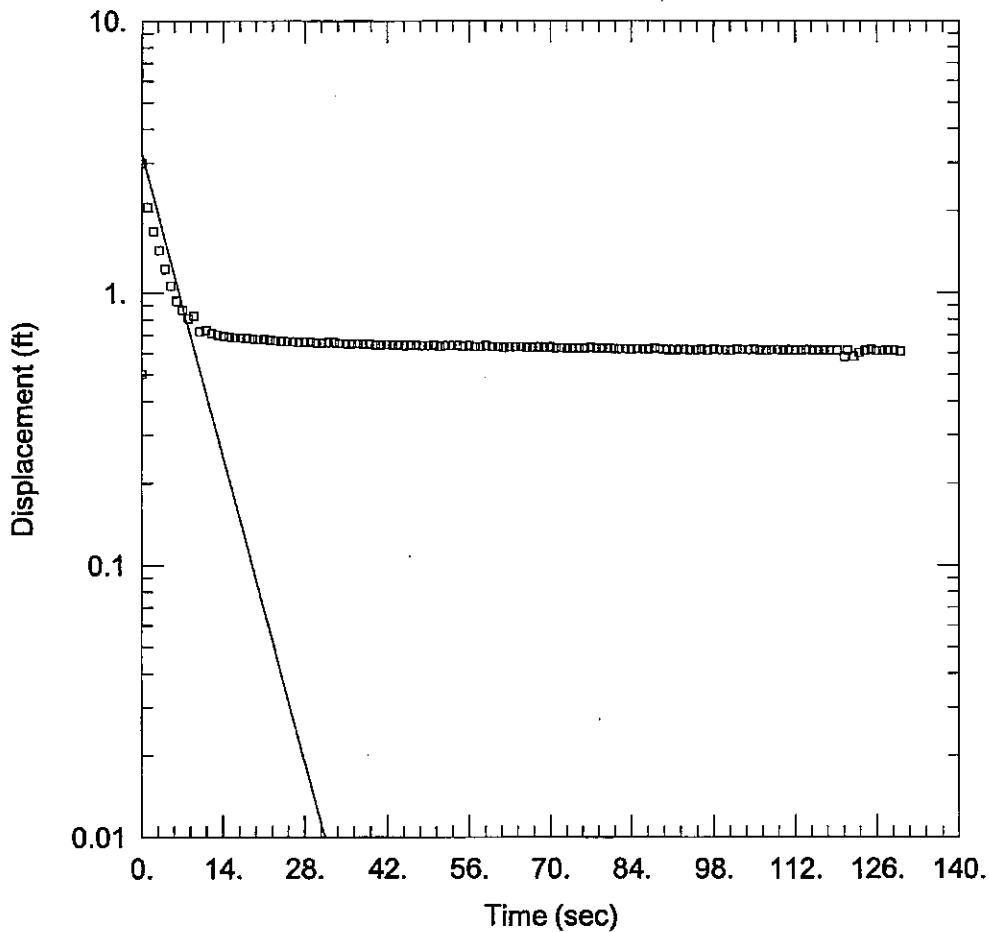
Saturated Thickness: 9.64 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9 (d1))

Initial Displacement: 3. ft	Static Water Column Height: 12.54 ft
Total Well Penetration Depth: 22.18 ft	Screen Length: 10. ft
Casing Radius: 0.2 ft	Well Radius: 0.085 ft
	Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined	Solution Method: Bouwer-Rice
K = 6.116E-5 ft/sec	y0 = 1.634 ft



WELL TEST ANALYSIS

Data Set: P:\...\well mw-9 u1.aqt
 Date: 02/18/11

Time: 15:00:00

PROJECT INFORMATION

Company: Patrick Engineering
 Client: Midwest Generation
 Project: 21053.070
 Location: Waukegan
 Test Well: MW-1 (u2)
 Test Date: 12/22/10

AQUIFER DATA

Saturated Thickness: 9.43 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9 (u1))

Initial Displacement: 3. ft Static Water Column Height: 9.43 ft
 Total Well Penetration Depth: 22. ft Screen Length: 10. ft
 Casing Radius: 0.2 ft Well Radius: 0.085 ft
 Gravel Pack Porosity: 0.

SOLUTION

Aquifer Model: Unconfined Solution Method: Bouwer-Rice
 $K = 0.001217$ ft/sec $y_0 = 3.263$ ft

