

**Northern Indiana Public Service Company  
R.M. Schahfer Generating Station  
Wheatfield, Indiana**

**CCR Management Unit Referred to as  
Schahfer Landfill Phase V and Phase VI**

**2017 ANNUAL GROUNDWATER  
MONITORING AND CORRECTIVE  
ACTION REPORT**

**Prepared Pursuant to 40 CFR §257.90(e) and Corresponding  
Regulations under 329 Indiana Administrative Code 10-9-1**

January 2018



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## 1.0 INTRODUCTION

40 Code of Federal Regulations (CFR) Parts 257 and 261, “Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule” (CCR Final Rule), as amended, and corresponding regulations under 329 Indiana Administrative Code (IAC) 10-9-1 require groundwater monitoring and annual reporting of resulting information from subject coal combustion residuals (CCR) management units. Golder Associates Inc. (Golder) on behalf of Northern Indiana Public Service Company (NIPSCO) prepared this 2017 CCR annual groundwater monitoring and corrective action report (2017 Annual Report) for the Rollin M. Schahfer Generating Station (RMSGGS, Schahfer) Landfill Phases V and VI (together, the CCR Unit) located in Wheatfield, Indiana. RMSGGS occupies an area of approximately four square miles located at 2723 E 1500 N Road, Wheatfield, Jasper County, Indiana (Latitude 41° 12' 36" and Longitude 87° 01' 48", see Figure 1). Phase V is an approximately 18-acre cell that closed April 1, 2017. Phase VI is an approximately 15-acre cell located due north of Phase V, which began receiving CCR on August 1, 2016. Closed non-regulated (under the CCR Final Rule) Schahfer Landfill Phases I through IV are located east of the CCR Final Rule-regulated landfill cells (Figure 2).

Due to the design, construction, and proximity of historical non-regulated landfill cells (i.e., Phases II and III) and because there is no practical means of monitoring between the two CCR landfill cells (i.e., Phases V and VI), NIPSCO and Golder’s approach for the CCR units includes monitoring these two separate cells as a single CCR unit for purposes of compliance with the CCR Final Rule. Routine monitoring activities performed during the reporting period include inspection of wells for integrity and security, measurement of groundwater levels prior to sample collection in order to assess groundwater flow direction, and collection of samples for laboratory analysis.

In conformance with the applicable requirements of 40 CFR §257.90(e)(1) through (5) and corresponding State of Indiana requirements, the 2017 CCR Annual Report:

- Documents the status of the groundwater monitoring and corrective action program
- Provides figures showing the CCR management unit and monitoring well locations
- Summarizes key CCR groundwater activities completed during calendar years 2016 and 2017
- Includes all CCR groundwater monitoring data obtained during calendar years 2016 and 2017
- Describes any problems encountered
- Discusses actions taken to resolve the problems, if applicable
- Projects key activities for the upcoming year

Although the CCR Final Rule (specifically 40 CFR §257.90(e)) states an annual report must provide information only for the preceding calendar year, NIPSCO’s consultant, Golder, conducted certain activities (e.g., installed monitoring wells) and collected data (e.g., initiated background sampling) relevant to the

CCR groundwater monitoring program beginning prior to 2017. Therefore, in the interest of providing a complete data package and summary of the monitoring program, Golder is including CCR Final Rule-related information collected in calendar years 2016 and 2017 in this first (i.e., 2017) annual report.

## 2.0 GROUNDWATER MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

Starting in 2016 following the installation of a groundwater monitoring system and throughout calendar year 2017, Golder collected background groundwater samples and performed Detection Monitoring at Schahfer Landfill Phases V and VI pursuant to the requirements of 40 CFR §257.94 and corresponding State of Indiana requirements. Based upon groundwater monitoring results to date, corrective action program requirements have neither been triggered nor implemented at this CCR management unit. A summary of key program actions including completed and projected events are presented in the following subsections, along with discussions of and references to requisite CCR management unit and well location figures and data tables.

### 2.1 Key Actions Completed – 2016-17

NIPSCO completed the following key actions relative to CCR groundwater well installation and monitoring at RMSGS Landfill Phases V and VI prior to the end of calendar year 2017:

- Design, construction, and development of background and downgradient groundwater monitoring wells consistent with NIPSCO written specifications and standard operating procedures (40 CFR §257.91)
- Certification of the groundwater monitoring system by a qualified professional engineer (40 CFR §257.91(f))
- Development of a groundwater sampling program including identification of statistical method(s) appropriate to the data set(s) and site conditions (40 CFR §257.91)
- Certification of the selection of appropriate statistical method(s) by a qualified professional engineer (40 CFR §257.93(f)(6))
- Collection of eight independent background groundwater samples for Appendix III and Appendix IV constituents from each background and downgradient monitoring well (40 CFR §257.94(b))
- Performance of the first Detection Monitoring event (40 CFR §257.94)

### 2.2 Monitoring System Design, Construction, and Development

Consistent with the requirements of 40 CFR §§257.90 and 257.91 and corresponding State of Indiana requirements, NIPSCO designed, constructed, and developed a single groundwater monitoring system for Schahfer Landfill Phases V and VI. As noted above, the two landfill cells are being monitored as a single unit due to their close proximity to one another (i.e., immediately adjacent) and the historical landfill cells that are not subject to regulation under the CCR Final Rule, such conditions preventing the installation of separate groundwater monitoring systems for each individual CCR landfill cell.

As shown in Table 1, Golder initially installed monitoring wells in May/June 2016, and then added supplemental wells in September/October 2016 to further characterize background and downgradient groundwater quality conditions. Golder developed all of these wells and installed dedicated bladder pumps

approximately two weeks after well installation. Based on historical groundwater data, NIPSCO and Golder determined that landfill groundwater monitoring typically should include well pairs, consisting of one shallow well to an approximate depth of 18 feet below ground surface (ft bgs) and a deep “B” designation well installed to an approximate depth of 35 ft bgs or to the top of the shale, at each location.

As shown on Figure 2 and summarized in the table below, the groundwater monitoring network for this combined (for the purposes of groundwater monitoring) CCR unit consists of five background wells and 12 downgradient wells. Golder installed these wells specifically in compliance with applicable requirements of the CCR Final Rule. NIPSCO obtained certification from a qualified professional engineer stating that the groundwater monitoring system was designed and constructed to meet the requirements of 40 CFR §257.91.

CCR Unit	Background Monitoring Wells	Downgradient Monitoring Wells
Phase V	GAMW-20, GAMW-24, GAMW-24B, GAMW-25, GAMW-25B	GAMW-21, GAMW-21B, GAMW-22, GAMW-22B, GAMW-23, GAMW-23B, GAMW-26, GAMW-26B, GAMW-27, GAMW-27B, GAMW-28, GAMW-28B,
Phase VI	Same as above	Same as above

## 2.3 Background Monitoring

Between July 2016 and August 2017, Golder collected eight to ten independent background groundwater samples from each background and downgradient well, as required by 40 CFR §257.94, at intervals of at least 26 days to account for both seasonal and spatial variability in groundwater quality. Each sample was sent to a contract laboratory in accordance with chain of custody and quality assurance/quality control procedures to be analyzed for 40 CFR Part 257 Appendix III and Appendix IV constituents. In addition, Golder personnel measured field water quality parameters specific conductance, temperature, dissolved oxygen, turbidity, oxidation-reduction potential and pH. The results of the background monitoring phase were used to develop appropriate, statistically valid background values for each constituent/monitoring well. Following completion of the eight background monitoring events, Golder collected the first Detection Monitoring groundwater samples, as described below in Section 2.5. Information including sampling dates, number of groundwater samples collected for each background and downgradient well, and the purpose of sampling is described in Table 2. All analytical results are presented in Table 3.

## 2.4 Development of the Background Population

Subsequent to each background monitoring event, Golder assessed the analytical data for outliers, anomalies, and trends that might be an indication of a sampling or analytical error. Outliers and anomalies are generally defined as inconsistently large or small values that can occur as a result of sampling, laboratory, transportation, or transcription errors, or even by chance alone. Significant trends may indicate natural geochemical variability, a source of systematic error, influence of an upgradient/off-site source, or

an actual occurrence of landfill influence. Appropriate statistical methods are used to remove outliers from the database and manage trends with detrending routines, prior to the calculation of statistical limits. To assess the data for outliers, anomalies, and trends, Golder assessed the background data using time vs. concentration graphs, and statistical routines included in the Sanitas™ statistical analysis software package. NIPSCO obtained certification from a qualified professional engineer stating that the selected statistical method, interwell prediction limits utilizing a verification resampling plan, is appropriate for evaluating the groundwater monitoring data for the CCR management area and is consistent with the requirements of 40 CFR §257.93(f)(6).

## 2.4.1 Outlier and Trend Assessment

Golder considers the groundwater analytical results collected from GAMW-20 in August 2017 as outliers and removed these data from the background data set for the following reasons:

- Following stabilization of field parameters, the field staff member collecting the groundwater sample noted that groundwater turned orange and turbidity spiked to over 1000 NTU just as they were beginning to collect the groundwater sample;
- Statistical testing, including the Dixon outlier test, identified three of the parameters as outliers;
- Several metal concentrations were an order of magnitude higher than previous sample round concentrations;
- The analytical results for several metals that were historically non-detect (i.e., below laboratory reporting limits) were detected at concentrations above the laboratory method detection limit at estimated concentrations (i.e., J-flag designation by lab); and
- Trend charts indicate that the August 2017 analytical results from GAMW-20 were inconsistent with other background results.

To confirm that the August 2017 analytical results from the groundwater sample collected from GAMW-20 were outliers, Golder collected a confirmation sample in October 2017. The October 2017 analytical results were consistent with historical results and confirm that the August 2017 analytical results were anomalous.

Golder identified the beryllium result from the groundwater sample collected from background monitoring well GAMW-20 in July 2016 as an outlier and removed this datum from the background data set for the following reasons:

- Statistical testing, including the Dixon outlier test, identified beryllium as an outlier;
- Trend charts indicated that the beryllium concentration detected during the July 2016 monitoring event was inconsistent with concentrations detected in other background monitoring wells; and
- The elevated beryllium concentration is the only detection of beryllium recorded in the background wells.

Golder identified the cobalt result from the groundwater sample collected from background monitoring well GAMW-25 in November 2016 as an outlier and removed this datum from the background data set for the following reasons:

- Trend charts indicated that the cobalt concentration detected during the November 2016 monitoring event was inconsistent with concentrations detected in other background monitoring wells; and
- The elevated cobalt concentration may be attributable to well construction activities (i.e., November 2016 results represented the first monitoring event).

Golder evaluated the background data for trends using Sanitas™ software. Golder will continue to monitor these trends and if this Unit enters assessment monitoring, detrending routines will be performed before using this data to calculate groundwater protection standards.

- Calcium concentrations detected in groundwater samples from well GAMW-25B show a downward trend;
- Chloride concentrations detected in groundwater samples from well GAMW-20 show an upward trend;
- Lead concentrations detected in groundwater samples from well GAMW-24B show a downward trend; and
- Radium-228 concentrations detected in groundwater samples from well GAMW-20 show a downward trend.

## 2.5 Detection Monitoring

Golder performed the first Detection Monitoring event in October 2017, followed by calculations and data analysis in January 2018. Groundwater samples were collected at all background and downgradient monitoring well locations and analyzed for 40 CFR Part 257 Appendix III constituents per 40 CFR §257.94. Following receipt and validation of laboratory results, Golder evaluated the results of the first Detection Monitoring sampling event to determine the concentration of Appendix III constituents relative to facility background concentrations. Using Sanitas™ software, Golder pooled the background data to calculate prediction limits and compared the October 2017 results to the calculated prediction limits to determine statistically significant increases (SSIs). The SSIs are summarized in the table below by downgradient monitoring well and constituent. Although not required under the CCR Final Rule, this 2017 Annual Report provides the results of statistical analyses completed in early 2018. Based on these results, in 2018 NIPSCO will complete an alternative source demonstration (ASD) or establish an Assessment Monitoring program.



Monitoring Well ID	Boron	Calcium	Chloride	Fluoride	Sulfate	pH	Total Dissolved Solids
GAMW-21							
GAMW-21B	X	X	X		X		X
GAMW-22							
GAMW-22B	X	X	X		X		X
GAMW-23	X	X			X	X	X
GAMW-23B	X	X	X		X	X	X
GAMW-26				X			
GAMW-26B		X			X		X
GAMW-27	X	X			X		X
GAMW-27B	X	X	X		X		X
GAMW-28	X	X			X		X
GAMW-28B	X	X	X		X		X

"X" represents a SSI

## 2.6 Problems Encountered and Follow-On Corrective Actions

No problems were encountered in calendar years 2016 and 2017.

### 3.0 KEY ACTIVITIES PROJECTED FOR 2018

During calendar year 2018, NIPSCO anticipates conducting the following key CCR groundwater monitoring activities for Schahfer Landfill Phases V and VI:

- Complete an alternative source demonstration or establish an Assessment Monitoring program;
- Prepare and submit the appropriate notifications according to the CCR Rule;
- Continue sampling background and downgradient monitoring wells per CCR requirements; and,
- Inspect and maintain monitoring system including wells, pumps, and equipment.

## TABLES

**Table 1: Monitoring Well Network**  
**CCR Unit Schahfer Landfill Phase V and VI**  
**NIPSCO Rollin M. Schahfer Generating Station**  
**Wheatfield, Indiana**

CCR Unit	Monitoring Well ID	Installation Date	Decommission Date (If Applicable)	Location Relative to Gradient	Basis For Action
LANDFILL Phase V and Phase VI	GAMW20	5/27/2016		Upgradient	Installed for groundwater quality monitoring*
	GAMW21	5/31/2016		Downgradient	
	GAMW21B	5/31/2016		Downgradient	
	GAMW22	5/31/2016		Downgradient	
	GAMW22B	6/2/2016		Downgradient	
	GAMW23	6/2/2016		Downgradient	
	GAMW23B	6/2/2016		Downgradient	
	GAMW24	9/26/2016		Upgradient	
	GAMW24B	9/26/2016		Upgradient	
	GAMW25	10/4/2016		Upgradient	
	GAMW25B	10/5/2016		Upgradient	
	GAMW26	10/4/2016		Downgradient	
	GAMW26B	10/4/2016		Downgradient	
	GAMW27	10/3/2016		Downgradient	
	GAMW27B	10/4/2016		Downgradient	
GAMW28	9/29/2016		Downgradient		
GAMW28B	9/29/2016		Downgradient		

\* Per the CCR Rule requirements, Golder collected eight rounds of background data prior to October 17, 2017.

Prepared by: DFS  
Checked by: CRT  
Reviewed by: MAH

**Table 2: Summary of Sampling Events**  
**CCR Unit Schahfer Landfill Phase V and VI**  
**NIPSCO Rollin M. Schahfer Generating Station**  
**Wheatfield, Indiana**

Well Purpose	Monitoring Well ID	Sample Event #1	Sample Event #2	Sample Event #3	Sample Event #4	Sample Event #5	Sample Event #6	Sample Event #7	Sample Event #8	Sample Event #9	Sample Event #10	Sample Event #11	Total Number of Samples
Purpose of Sample		Background										Detection Monitoring	Total Number of Samples
Sample Parameters		Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III and Appendix IV	Appendix III	
Background Monitoring Well	GAMW-20	7/12/2016	9/8/2016	11/8/2016	12/7/2016	1/10/2017	2/28/2017	3/28/2017	4/27/2017	6/26/2017	8/22/2017	10/4/2017 <sup>(2)</sup>	11
	GAMW-24	(1)	(1)	11/11/2016	12/7/2016	1/9/2017	2/28/2017	3/27/2017	4/25/2017	6/27/2017	8/24/2017	10/3/2017	9
	GAMW-24B	(1)	(1)	11/11/2016	12/7/2016	1/9/2017	2/28/2017	3/27/2017	4/25/2017	6/27/2017	8/24/2017	10/3/2017	9
	GAMW-25	(1)	(1)	11/10/2016	12/8/2016	1/11/2017	3/1/2017	3/29/2017	4/26/2017	6/28/2017	8/24/2017	10/3/2017	9
	GAMW-25B	(1)	(1)	11/10/2016	12/8/2016	1/11/2017	3/2/2017	3/29/2017	4/26/2017	6/28/2017	8/24/2017	10/3/2017	9
Downgradient Monitoring Well	GAMW-21	7/12/2016	9/7/2016	11/8/2016	12/7/2016	1/10/2017	3/1/2017	3/28/2017	4/27/2017	6/26/2017	8/22/2017	10/4/2017	11
	GAMW-21B	7/12/2016	9/7/2016	11/8/2016	12/7/2016	1/10/2017	3/1/2017	3/28/2017	4/27/2017	6/26/2017	8/23/2017	10/4/2017	11
	GAMW-22	7/12/2016	9/7/2016	11/8/2016	12/7/2016	1/10/2017	3/1/2017	3/28/2017	4/28/2017	6/27/2017	8/23/2017	10/4/2017	11
	GAMW-22B	7/13/2016	9/7/2016	11/8/2016	12/7/2016	1/10/2017	3/1/2017	3/28/2017	4/28/2017	6/27/2017	8/23/2017	10/4/2017	11
	GAMW-23	7/13/2016	9/7/2016	11/8/2016	12/8/2016	1/10/2017	3/1/2017	3/29/2017	4/28/2017	6/27/2017	8/23/2017	10/3/2017	11
	GAMW-23B	7/13/2016	9/7/2016	11/8/2016	12/8/2016	1/11/2017	3/1/2017	3/29/2017	4/28/2017	6/27/2017	8/23/2017	10/3/2017	11
	GAMW-26	(1)	(1)	11/10/2016	12/8/2016	1/11/2017	3/2/2017	3/28/2017	4/26/2017	6/27/2017	8/23/2017	10/4/2017	9
	GAMW-26B	(1)	(1)	11/10/2016	12/8/2016	1/11/2017	3/2/2017	3/28/2017	4/26/2017	6/27/2017	8/23/2017	10/4/2017	9
	GAMW-27	(1)	(1)	11/9/2016	12/7/2016	1/10/2017	2/28/2017	3/28/2017	4/26/2017	6/27/2017	8/23/2017	10/3/2017	9
	GAMW-27B	(1)	(1)	11/9/2016	12/7/2016	1/9/2017	2/28/2017	3/28/2017	4/26/2017	6/27/2017	8/23/2017	10/3/2017	9
	GAMW-28	(1)	(1)	11/10/2016	12/7/2016	1/9/2017	2/28/2017	3/27/2017	4/27/2017	6/27/2017	8/23/2017	10/3/2017	9
	GAMW-28B	(1)	(1)	11/10/2016	12/8/2017	1/9/2017	3/1/2017	3/27/2017	4/27/2017	6/27/2017	8/23/2017	10/3/2017	9
	Total Number of Samples		7	7	17	17	17	17	17	17	17	17	17

**Notes:**

Sample counts do not include QC/QA samples.

(1) Well was not installed until October 2016 and therefore was not sampled during this sampling round.

(2) Sample was analyzed for Appendix III parameters and a1 Appendix IV metals to confirm outliers from August sampling event.

Prepared by: DFS  
 Checked by: CRT  
 Reviewed by: MAH

**Table 3: Analytical Data**  
**CCR Unit Schahfer Landfill Phase V and VI**  
**NIPSCO Rollin M. Schahfer Generating Station**  
**Wheatfield, Indiana**

Analyte	Unit	GAMW20												
		2016-07-12	2016-07-12	2016-09-08	2016-11-08	2016-12-07	2017-01-10	2017-02-28	2017-03-28	2017-04-27	2017-04-27	2017-06-26	2017-08-22	2017-10-04
		FD	N	N	N	N	N	N	N	FD	N	N	N	N
<b>Appendix III Parameters</b>														
Boron	mg/L	1.7	1.7	0.28	0.92	0.97	0.52	0.27	0.63	0.84	0.88	1.4	1.5 O	2.1
Calcium	mg/L	130	120	71	97	100	91	76	96	100	110	110	130 O	94
Chloride	mg/L	7.8	7.6	12	12	11	12	12	14	14	15	14	17 O	19
Fluoride	mg/L	0.18 J	0.18 J	0.27 J	0.36 J	0.36 J	0.31 J	0.24 J	0.24 J	0.17 J	0.19 J	0.23 J	0.18 JO	0.2 J
Sulfate	mg/L	300 J+	300 J+	44	190	180	94	69	140	170	170	220	310 O	270
Total Dissolved Solids	mg/L	760	740	290	570	600	420	370	480	550	560	530	750 O	780
pH	SU		7.04	7.31	6.96	7.18	7.05	7.14	6.79		7.1	7.1	6.68	6.47
<b>Appendix IV Parameters</b>														
Antimony	mg/L	< 0.0020 U	0.00058 J	< 0.0020 U	< 0.0020 U	< 0.002 U	< 0.002 U	0.0022	0.00036 J	< 0.002 U	< 0.002 U	< 0.002 U	0.0012 JO	< 0.002 U
Arsenic	mg/L	0.017	0.018	0.016	0.01	0.011	0.01	0.0064	0.0076	0.0059	0.0052	0.0089	0.41 O	0.011
Barium	mg/L	0.084	0.081	0.030 J-	0.041	0.036	0.03	0.022	0.032	0.036	0.037	0.04	0.25 O	0.068
Beryllium	mg/L	0.00020 JO	0.0012 O	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00036 J	< 0.001 U	0.00061 JO	< 0.001 U
Caesium	mg/L	< 0.0010 U	0.00015 J	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00043 JO	< 0.001 U
Chromium	mg/L	< 0.0020 U	0.0015 J	< 0.0020 U	< 0.0020 U	0.00085 J	0.00053 J	0.0013 J	0.00043 J	< 0.002 U	< 0.002 U	0.0013 J	0.036 O	< 0.002 U
Cobalt	mg/L	0.00056 J	0.00077 J	0.00034 J	0.00087 J	0.0018	0.0012	0.00097 J	0.00091 J	0.0012	0.0014	0.0019	0.0019 O	0.0007 J
Fluoride	mg/L	0.18 J	0.18 J	0.27 J	0.36 J	0.36 J	0.31 J	0.24 J	0.24 J	0.17 J	0.19 J	0.23 J	0.18 JO	0.2 J
Lead	mg/L	0.00026 J	0.00041 J	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00027 J	< 0.001 U	0.0005 J	< 0.001 U	0.00099 JO	< 0.001 U
Lithium	mg/L	0.0040 J	0.0041 J	< 0.0080 U	< 0.0080 U	0.0011 J	0.0012 J	0.0014 J	< 0.008 U	0.0036 J	0.0037 J	< 0.04 U	0.0047 J+O	0.0043 J
Mercury	mg/L	0.00017 J	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 UJO	< 0.0002 U
Molybdenum	mg/L	0.12	0.12	0.13	0.1	< 0.25 U	0.074	0.1	0.073 J+	0.06	0.067	0.075	0.19 O	0.19
Radium 226 + 228	pCi/L	1.01	0.995	0.753	0.797 J+	0.575	0.376	< 0.416 U	< 0.358 U	< 0.3 U	< 0.259 U	0.8	2.75 O	
Radium-226	pCi/L	0.487	0.485	0.327	< 0.361 U	0.373 J+	< 0.24 U	0.194	< 0.107 U	0.115	0.151	0.549	1.19 O	
Radium-228	pCi/L	0.524	0.51	0.427	0.473 J+	0.202	< 0.376 U	< 0.416 U	< 0.358 U	< 0.3 U	< 0.259 U	< 0.372 U	1.55 O	
Selenium	mg/L	0.00029 J	0.0012 J	< 0.0050 U	0.0038 J	0.01	0.0069	0.0047 J	0.005	0.002 J	0.0024 J	0.0019 J	0.1 O	0.0011 J
Thallium	mg/L	< 0.0010 U	0.00016 J	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00021 JO	< 0.001 U
<b>Field Parameters</b>														
Dissolved Oxygen	mg/L		0.31	0.25	0.32	0.23	0.19	0.17	0.24		0.22	0.17	0.04	0.45
Oxidation-Reduction Potential	millivolts		-99.7	-98.4	-57.3	50.6	-43.4	-76.2	-100.9		-97.9	-65	-56.1	-42.6
pH	SU		7.04	7.31	6.96	7.18	7.05	7.14	6.79		7.1	7.1	6.68	6.47
Specific Conductance	uS/cm		914	496	892	884	647	574	702		768	988	1084	1119
Temperature	deg C		16.48	20.97	19.24	12.1	14.22	12.52	11.89		11.94	14.93	17.52	17.69
Turbidity	NTU		4.9	3.14	4.91	4.69	4.78	4.64	3.14		4.83	4.88	4.87	4.12

Note:

mg/L = milligram per liter

uS/cm = micro Siemens per centimeter

deg C = degrees Celsius

NTU = Nephelometric Turbidity Units

SU = Standard Units

pCi/L = picocuries per liter

"U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.

"J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.

"J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.

"J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.

"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.

"O" = Indicates the result was identified as an outlier and removed from the background data set.

**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW21												
		2016-07-12	2016-09-07	2016-11-08	2016-12-07	2016-12-07	2017-01-10	2017-03-01	2017-03-28	2017-04-27	2017-06-26	2017-08-22	2017-10-04	2017-10-04
		N	N	N	FD	N	N	N	N	N	N	N	FD	N
<b>Appendix III Parameters</b>														
Boron	mg/L	1.2	1	0.86	1	1	1	0.95	1	0.86	1	0.88	1.1	1.1
Calcium	mg/L	53	48	49	50	45	51	54	56	61	49	66	48	48
Chloride	mg/L	2.9	2.7	2.4	2.3	2.3	2.4	2.6	2.8	4	2.5	3.6	2.1	2.1
Fluoride	mg/L	0.15 J	0.20 J	0.19 J	0.19 J	0.19 J	0.17 J	0.17 J	0.19 J	0.15 J	0.19 J	0.15 J	0.22 J	0.22 J
Sulfate	mg/L	93 J*	65	62	54	59	51	56	48	56	51	54	45	46
Total Dissolved Solids	mg/L	310	250	270	270	280	230	270	270	330	240	330	270	260
pH	SU	7.21	7.73	7.07		7.4	7.05	7.2	6.71	6.8	7.13	6.41		6.51
<b>Appendix IV Parameters</b>														
Antimony	mg/L	0.00024 J	< 0.0020 U	< 0.0020 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.002 U	0.0014 J	< 0.002 U	< 0.002 U	< 0.002 U		
Arsenic	mg/L	0.0057	0.0074	0.0072	0.0065 J	0.0074	0.0072	0.0078	0.0085	0.0071	0.0075	0.011		
Barium	mg/L	0.048	0.044 J	0.044	0.033	0.041	0.04	0.048	0.051	0.057	0.041	0.068		
Beryllium	mg/L	0.00071 J	< 0.0010 U	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U		
Cadmium	mg/L	0.00071 J	< 0.0010 U	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U		
Chromium	mg/L	0.00070 J	0.00068 J	< 0.0020 U	0.012	0.00076 J	0.00079 J	< 0.002 U	0.001 J	0.00098 J	< 0.002 U	< 0.002 U		
Cobalt	mg/L	0.0011	0.0012	0.0017	< 0.005 U	< 0.001 U	0.00085 J	0.0024	0.003	0.0048	0.0029	0.005		
Fluoride	mg/L	0.15 J	0.20 J	0.19 J	0.19 J	0.19 J	0.17 J	0.17 J	0.19 J	0.15 J	0.19 J	0.15 J	0.22 J	0.22 J
Lead	mg/L	0.00032 J	< 0.0010 U	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00043 J	< 0.001 U	< 0.001 U	0.00045 J		
Lithium	mg/L	0.0010 J	0.0013	< 0.0080 U	0.00083 J	0.0009 J	0.00072 J	0.0005 J	< 0.008 U	< 0.008 U	< 0.04 U	< 0.008 U		
Mercury	mg/L	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U		
Molybdenum	mg/L	0.0053 U	0.0063 J	0.0065 J	< 0.05 U	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0052 J	0.006 J	0.0054 J		
Radium 226 + 228	pci/L	< 0.412 U	< 0.4 U	0.513 J+	0.55	0.739	< 0.522 U	0.428	< 0.677 U	0.505	0.462	< 0.324 U		
Radium-226	pci/L	0.184	0.187	0.299	0.321 J+	0.2 J+	< 0.285 U	0.2	0.231	0.283	< 0.09 U	0.188		
Radium-228	pci/L	< 0.412 U	< 0.4 U	< 0.448 U	0.223	0.539	< 0.522 U	< 0.419 U	< 0.677 U	< 0.248 U	0.373	< 0.324 U		
Selenium	mg/L	0.00059 J	0.00070 J	< 0.0050 U	< 0.025 U	< 0.005 U	0.00084 J	< 0.005 U	0.0012 J	< 0.005 U	< 0.005 U	0.00092 J		
Thallium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U		
<b>Field Parameters</b>														
Dissolved Oxygen	mg/L	0.2	0.25	0.31		0.29	0.21	0.35	0.19	0.83	0.81	0.48		0.08
Oxidation-Reduction Potential	millivolts	-73	729	-65.6		-79.3	-67.2	-77.6	-52.9	-28.2	-45.1	2.4		-19
pH	SU	7.21	7.73	7.07		7.4	7.05	7.2	6.71	6.8	7.13	6.41		6.51
Specific Conductance	uS/cm	356	408	436		406	388	463	435	479	452	516		413
Temperature	deg C	13.14	17.04	15.25		13.12	11.22	8.98	8.9	9.28	13.23	15.76		16.08
Turbidity	NTU	1.53	1.18	1.2		1.56	2.39	3.03	4.76	3.2	0.86	1.07		0.77

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be based high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be based low; the estimated value is provided.  
 "UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.



**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW21B												
		2016-07-12	2016-09-07	2016-11-08	2016-11-08	2016-12-07	2017-01-10	2017-01-10	2017-03-01	2017-03-28	2017-04-27	2017-06-26	2017-08-23	2017-10-04
		N	N	FD	N	N	FD	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>														
Boron	mg/L	3.2	3.6	5.2	5.3	5.4	5.1	5.1	4.1	3.5	2.9	3.4	3.8	4
Calcium	mg/L	120	120	130	130	130	150	150	140	140	130	150	140	150
Chloride	mg/L	28	36	34	35	33	33	33	29	35	30	37	41	40
Fluoride	mg/L	0.21 J	0.22 J	< 10 U	< 10 U	< 10 U	0.18 J	0.18 J	0.2 J	0.17 J	0.19 J	0.14 J	< 5 U	0.17 J
Sulfate	mg/L	610 J+	590	630	650	590	560	580	530	550	480	590	660	650 J-
Total Dissolved Solids	mg/L	1000	1100	1100	1200	1100	1100	1000	1000	1100	970	1100	1200	1300
pH	SU	7.29	7.32		7.07	7.2		6.99	7.5	6.89	7.3	7.24	6.51	6.54
<b>Appendix IV Parameters</b>														
Antimony	mg/L	0.00022 J	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Arsenic	mg/L	0.0026 J	0.0021 J	0.0018 J	0.0018 J	0.0019 J	0.0018 J	0.0017 J	< 0.005 U	0.0017 J	0.0019 J	0.0023 J	0.0019 J	
Barium	mg/L	0.079	0.083 J-	0.085	0.086	0.084	0.082	0.083	0.067	0.073	0.067	0.073	0.069	
Beryllium	mg/L	0.00051 J	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Cadmium	mg/L	0.00013 J	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Chromium	mg/L	< 0.0020 U	0.00037 J	< 0.0020 U	< 0.0020 U	< 0.002 U	0.00034 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Cobalt	mg/L	0.00036 J	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	0.00013 J	< 0.001 U	< 0.001 U	0.00022 J	< 0.001 U	0.00022 J	< 0.001 U	
Fluoride	mg/L	0.21 J	0.22 J	< 10 U	< 10 U	< 10 U	0.18 J	0.18 J	0.2 J	0.17 J	0.19 J	0.14 J	< 5 U	0.17 J
Lead	mg/L	0.00082 J	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00029 J	< 0.001 U	< 0.001 U	< 0.001 U	
Lithium	mg/L	0.0027 J	0.0029 J	0.0018 J	0.0019 J	0.0048 J	0.004 J	0.004 J	0.0028 J	< 0.008 U	0.0022 J	< 0.04 U	0.0033 J+	
Mercury	mg/L	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	
Molybdenum	mg/L	0.7	0.84	1.2	1.3	1.1	1.1	1.1	0.75	0.59	0.53	0.62	0.6	
Radium 226 + 228	pci/L	0.947	1.34	2.07 J+	1.84 J+	1.52	2.6 J	1.72 J	0.884	0.824	0.797	0.842	1.3	
Radium-226	pci/L	0.931	0.875	0.901	1.17	0.926 J+	0.929	0.786	0.654	0.434	0.575	0.499	0.791	
Radium-228	pci/L	< 0.524 U	0.469	1.17 J+	0.674 J+	0.593	1.67 J	0.93 J+	< 0.354 U	0.391	< 0.299 U	0.344	0.514	
Selenium	mg/L	0.00067 J	0.00066 J	< 0.0050 U	< 0.0050 U	< 0.005 U	0.00062 J	0.00049 J	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	
Thellium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>														
Dissolved Oxygen	mg/L	1.89	0.43		0.27	0.23		0.43	0.24	0.29	0.26	0.23	0.45	0.17
Oxidation-Reduction Potential	millivolts	-80.4	-77.9		-82.7	-87.4		-88.2	-109.2	-95.4	-98.3	-86.5	77.3	-5.8
pH	SU	7.29	7.32		7.07	7.2		6.99	7.5	6.89	7.3	7.24	6.51	6.54
Specific Conductance	uS/cm	1099	1449		1496	1521		1479	1418	1280	1164	1588	1536	1634
Temperature	deg C	11.89	14.25		13.01	12.25		12.11	11.07	11.08	10.81	11.95	12.76	13.49
Turbidity	NTU	4.21	3.05		1.07	1.16		1.24	3.96	2.9	4.53	3.97	3.21	1.59

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.





**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW22										
		2016-07-12	2016-09-07	2016-11-08	2016-12-07	2017-01-10	2017-03-01	2017-03-28	2017-04-28	2017-06-27	2017-08-23	2017-10-04
		N	N	N	N	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>												
Boron	mg/L	0.95	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.6	1.6	1.7
Calcium	mg/L	98	99	97	120	140	110	130	120	130	130	110
Chloride	mg/L	2.7	2.9	3.9 J	4.1 J	4.2 J	3.6	4.1 J	4.2	4.2	4.6 J	4.8
Fluoride	mg/L	0.20 J	0.21 J	0.20 J	0.2 J	0.2 J	0.16 J	< 5 U	0.16 J	0.2 J	0.14 J	0.2 J
Sulfate	mg/L	100 J+	130	140	180	200	160	220	180	170	190	160
Total Dissolved Solids	mg/L	390	430	490	580	600	530	590	580	550	610	570
pH	SU	7.19	7.56	6.9	7.02	6.68	7.15	6.5	6.69	7.01	6.62	6.53
<b>Appendix IV Parameters</b>												
Antimony	mg/L	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Arsenic	mg/L	0.0045 J	0.0041 J	0.0062	0.0032 J	0.0028 J	< 0.005 U	0.0018 J	0.0018 J	0.0019 J	0.0035 J	
Barium	mg/L	0.072	0.059 J-	0.079	0.081	0.078	0.063	0.08	0.076	0.065	0.099	
Beryllium	mg/L	0.00030 J	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Cadmium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Chromium	mg/L	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Cobalt	mg/L	0.00059 J	0.0014	0.0011	0.0019	0.0025	0.0025	0.0025	0.0024	0.0018	0.0024	
Fluoride	mg/L	0.20 J	0.21 J	0.20 J	0.2 J	0.2 J	0.16 J	< 5 U	0.16 J	0.2 J	0.14 J	0.2 J
Lead	mg/L	0.00026 J	< 0.0010 U	0.00017 J	< 0.001 U	< 0.001 U	< 0.001 U	0.00027 J	< 0.001 U	< 0.001 U	< 0.001 U	
Lithium	mg/L	0.0013 J	0.0013 J	< 0.0080 U	0.00081 J	0.0012 J	0.00073 J	< 0.008 U	< 0.008 U	< 0.04 U	0.0019 J+	
Mercury	mg/L	0.00010 J	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 UJ	
Molybdenum	mg/L	0.0048 U	0.0055 J	0.014	< 0.01 U	0.015	0.012	0.011 J+	0.0059 J	0.0089 J	0.007 J	
Radium 226 + 228	pCi/L	< 0.533 U	< 0.43 U	0.686 J+	0.503	< 0.447 U	0.5	0.515	< 0.281 U	0.443	0.443	
Radium-226	pCi/L	0.247	0.267	< 0.38 U	0.375 J+	< 0.279 U	0.255	0.153	0.157	0.171	0.305	
Radium-228	pCi/L	< 0.533 U	< 0.43 U	< 0.443 U	0.128	< 0.447 U	< 0.413 U	< 0.365 U	< 0.281 U	< 0.327 U	< 0.352 U	
Selenium	mg/L	0.00034 J	0.00060 J	< 0.0050 U	< 0.005 U	0.00066 J	< 0.005 U	0.00064 J	< 0.005 U	< 0.005 U	< 0.005 U	
Thallium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>												
Dissolved Oxygen	mg/L	0.39	0.2	0.25	0.49	0.31	0.29	0.72	0.41	0.12	0.2	0.21
Oxidation-Reduction Potential	millivolts	-79.7	741.8	-31.2	-50	7.5	-79.5	15.4	-16.9	-17.1	44.9	-5.5
pH	SU	7.19	7.56	6.9	7.02	6.68	7.15	6.5	6.69	7.01	6.62	6.53
Specific Conductance	uS/cm	502	700	738	867	858	831	785	860	797	865	836
Temperature	deg C	14.12	17.49	15.63	13.12	10.72	8.47	8.39	9.5	13.24	15.32	16.97
Turbidity	NTU	4.66	2.31	2.12	2.89	3.09	4.21	3.14	4.4	4.87	3.34	3.69

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pCi/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.



**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW22B											
		2016-07-13	2016-09-07	2016-11-08	2016-12-07	2017-01-10	2017-03-01	2017-03-01	2017-03-28	2017-04-28	2017-06-27	2017-08-23	2017-10-04
		N	N	N	N	N	FD	N	N	N	N	N	N
<b>Appendix III Parameters</b>													
Boron	mg/L	17	16	17	18	17	17	18	17	17	17	18	18
Calcium	mg/L	390	350	400	390	410	400	400	350	360	330	380	350
Chloride	mg/L	470	690	840	790	760	690	670	740	770	760	790	750
Fluoride	mg/L	0.35 J	< 100 U	< 200 U	< 200 U	< 50 U	< 50 U	< 50 U	< 50 J	< 100 U	< 100 U	< 50 U	< 50 U
Sulfate	mg/L	7100 J+	7400	9000	8400	7700	7500	6800	7000	6900	7300	7500	8500 J-
Total Dissolved Solids	mg/L	9600	12000	14000	14000	13000	13000	12000	12000	12000	11000	13000	13000
pH	SU	7.53	7.42	7.31	7.21	7.18		7.66	7.02	7.15	7.37	7.21	6.91
<b>Appendix IV Parameters</b>													
Antimony	mg/L	< 0.0020 U	< 0.0020 U	< 0.010 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.002 U	
Arsenic	mg/L	0.0026 J	0.0021 J	0.0027 J	0.0029 J	0.0025 J	< 0.005 U	< 0.005 U	0.002 J	0.002 J	< 0.025 U	0.0019 J	
Barium	mg/L	0.075	0.070 J-	0.077	0.08	0.081	0.075	0.078	0.072	0.067	0.064	0.068	
Beryllium	mg/L	0.00011 J	< 0.0010 U	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	< 0.001 U	
Cadmium	mg/L	0.00035 J	< 0.0010 U	< 0.0050 U	< 0.005 U	< 0.001 U	0.00044 J	0.00045 J	< 0.001 U	0.00046 J	< 0.005 U	0.00049 J	
Chromium	mg/L	0.0012 J	0.0012 J	< 0.010 U	0.0015 J	0.0012 J	< 0.002 U	< 0.002 U	0.0012 J	0.001 J	< 0.01 U	0.0011 J	
Cobalt	mg/L	0.00050 U	0.00018 J	< 0.0050 U	< 0.005 U	0.00026 J	< 0.001 U	< 0.001 U	0.00014 J	< 0.001 U	< 0.005 U	0.0002 J	
Fluoride	mg/L	0.35 J	< 100 U	< 200 U	< 200 U	< 50 U	< 50 U	< 50 U	< 50 J	< 100 U	< 100 U	< 50 U	< 50 U
Lead	mg/L	0.0016	< 0.0010 U	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00059 J	< 0.001 U	0.0028 J	< 0.001 U	
Lithium	mg/L	0.26	0.25	0.28	0.29	0.3	0.28	0.27	0.26	0.3	0.31	0.32 J+	
Mercury	mg/L	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U
Molybdenum	mg/L	3.9	3.1	2.5	2.8	3.2	0.3 J	3.1 J	2.9	3	2.1	2.7	
Radium 226 + 228	pci/L	5.87	6.59	10.5 J+	8.18	9.05	9.06	7.99	6.25	5.53	7.21	7.74	
Radium-226	pci/L	1.93	2.07	4.06	3.17 J+	2.02	1.77	1.33	1.53	1.73	1.57	1.79	
Radium-228	pci/L	3.94	4.53	6.42 J+	5.01	7.02 J+	7.29	5.86	4.71	3.8	5.64	5.94	
Selenium	mg/L	0.0017 J	0.0021 J	< 0.025 U	< 0.025 U	0.0028 J	< 0.005 U	< 0.005 U	0.0026 J	0.002 J	< 0.025 U	0.0016 J	
Thallium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	0.00021 J	
<b>Field Parameters</b>													
Dissolved Oxygen	mg/L	1.07	0.34	0.21	0.15	0.13		0.15	0.1	0.11	0.11	0.03	0.16
Oxidation-Reduction Potential	millivolts	-97.2	-88.1	-101.4	-84.7	-103.4		-157.7	-108.2	-126.1	-98	20.1	-6.5
pH	SU	7.53	7.42	7.31	7.21	7.18		7.66	7.02	7.15	7.37	7.21	6.91
Specific Conductance	uS/cm	8594	13730	1512	1577	1510		1536	10170	13680	1478	1397	1496
Temperature	deg C	12.23	13.41	13.09	12.28	12.14		11.35	11.18	11.2	12.38	12.87	13.48
Turbidity	NTU	4.29	3.67	3.76	1.57	2.67		3.44	2.96	4.54	2.97	2.39	1.13

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = pcuries per liter

"U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.

"J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.

"J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.

"J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.

"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.

"O" = Indicates the result was identified as an outlier and removed from the background data set.

**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW23										
		2016-07-13	2016-09-07	2016-11-08	2016-12-08	2017-01-10	2017-03-01	2017-03-29	2017-04-28	2017-06-27	2017-08-23	2017-10-03
		N	N	N	N	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>												
Boron	mg/L	21	19	24	24	25	26	26	25	23	24	26
Calcium	mg/L	460	430	420	380	490	490	470	500	470	440	450
Chloride	mg/L	11	20	18 J	22	18 J	17	20	15 J	56	17	17
Fluoride	mg/L	0.43 J	0.70 J	0.60 J	< 10 U	0.8 J	0.89 J	0.76 J	0.78 J	< 50 U	0.8 J	1.1 J
Sulfate	mg/L	1700 J+	1700	1600	1200	1600	1500	1700	1700	1600	1700	1600
Total Dissolved Solids	mg/L	2300	2500	2300	2500	2400	2600	2600	2800	2600	2600	2600
pH	SU	8.54	8.5	8.38	8.53	8.22	8.97	8.31	8.72	8.46	8.37	8.12
<b>Appendix IV Parameters</b>												
Antimony	mg/L	0.00089 J	0.00072 J	0.00066 J	< 0.002 U	0.0021	0.006 J+	0.0033	0.0065	0.0022	0.0013 J	
Arsenic	mg/L	0.012	0.019	0.025	0.024 J	0.047	0.12	0.1	0.11	0.11	0.044	
Barium	mg/L	0.043	0.033 J-	0.03	0.035	0.032	0.029	0.031	0.029	0.027	0.029	
Beryllium	mg/L	0.00039 J	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Cadmium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Chromium	mg/L	< 0.0020 U	< 0.0020 U	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Cobalt	mg/L	0.00013 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Fluoride	mg/L	0.43 J	0.70 J	0.60 J	< 10 U	0.8 J	0.89 J	0.76 J	0.78 J	< 50 U	0.8 J	1.1 J
Lead	mg/L	0.00022 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00046 J	
Lithium	mg/L	0.043	0.026	0.027	0.026	0.027	0.027	0.029	0.032	0.026 J	0.026 J+	
Mercury	mg/L	< 0.00020 U	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 UJ	
Molybdenum	mg/L	0.02	0.0088 J	0.015	< 0.01 U	0.05	0.037	0.067	0.013	0.007 J	0.005 J	
Radium 226 + 228	pCi/L	1.33	1.26	1.06 J+	1.48	1.69	0.544	0.411	0.603	0.637	0.9	
Radium-226	pCi/L	0.604	0.431	0.391	0.4 J+	0.402	0.328	0.171	0.304	0.293	0.275	
Radium-228	pCi/L	0.724	0.834	0.672 J+	1.08	1.28 J+	< 0.376 U	< 0.403 U	0.299	< 0.351 U	0.625	
Selenium	mg/L	0.0016 J	0.0018 J	0.0023 J	0.0032 J	0.0017 J	< 0.005 U	0.0018 J	0.0023 J	0.0015 J	0.0011 J	
Thallium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>												
Dissolved Oxygen	mg/L	0.14	0.2	0.12	0.1	0.11	0.2	0.11	0.15	0.09	0.02	0.04
Oxidation-Reduction Potential	millivolts	-306	-303	-308.5	-344.8	-330.6	-349.2	-341.9	-346.7	-313.6	-272.8	-260
pH	SU	8.54	8.5	8.38	8.53	8.22	8.97	8.31	8.72	8.46	8.37	8.12
Specific Conductance	uS/cm	2075	2624	2800	2829	2657	2956	2580	2677	2811	2711	2736
Temperature	deg C	12.93	15.15	14.78	13.11	13.1	11.53	11.21	11.05	12.45	14.31	14.81
Turbidity	NTU	2.11	0.77	0.28	0.56	0.71	0.25	0.74	0.82	1.77	1.12	0.7

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pCi/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.

**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW23B										
		2016-07-13	2016-09-07	2016-11-08	2016-12-08	2017-01-11	2017-03-01	2017-03-29	2017-04-28	2017-06-27	2017-08-23	2017-10-03
		N	N	N	N	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>												
Boron	mg/L	15	11	13	14	13	13	13	13	14	14	14
Calcium	mg/L	270	250	240	270	250	270	240	250	230	240	240
Chloride	mg/L	570	630	680	630	630	570	690	580	610	540	590
Fluoride	mg/L	0.53 J	< 100 U	< 200 U	< 200 U	1.3 J	< 50 U	< 50 U	< 100 U	< 100 U	< 50 U	1.4 J
Sulfate	mg/L	7900 J+	6800	7400	6200	6500	5800	6300	6200	6100	6200	6000
Total Dissolved Solids	mg/L	10000	11000	11000	11000	10000	11000	11000	11000	9600	11000	11000
pH	SU	8.65	8.32	8.21	8.12	7.69	8.55	7.95	8.48	8.27	8.32	7.89
<b>Appendix IV Parameters</b>												
Antimony	mg/L	< 0.0020 U	< 0.0020 U	< 0.010 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.002 U	
Arsenic	mg/L	0.0031 J	0.0020 J	< 0.025 U	0.002 J	0.0018 J	< 0.005 U	0.0022 J	0.0022 J	< 0.025 U	0.0019 J	
Barium	mg/L	0.047	0.046 J-	0.048	0.051	0.047	0.045	0.045	0.046	0.041	0.038	
Beryllium	mg/L	0.00042 J	< 0.0010 U	< 0.0050 U	< 0.0050 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	< 0.001 U	
Cadmium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	< 0.001 U	
Chromium	mg/L	0.0022	0.0027	0.0025 J	< 0.01 U	0.0022	0.0026	0.0025	0.0023	< 0.01 U	0.0024	
Cobalt	mg/L	0.00053 U	0.00034 J	< 0.0050 U	< 0.005 U	0.00016 J	< 0.001 U	0.00028 J	< 0.001 U	< 0.005 U	< 0.001 U	
Fluoride	mg/L	0.53 J	< 100 U	< 200 U	< 200 U	1.3 J	< 50 U	< 50 U	< 100 U	< 100 U	< 50 U	1.4 J
Lead	mg/L	0.0011	< 0.0010 U	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	0.00063 J	
Lithium	mg/L	0.092	0.086	0.068	0.072	0.062	0.078	0.065	0.074	0.35	0.36 J+	
Mercury	mg/L	0.000090 U	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	
Molybdenum	mg/L	0.037	0.036	0.043 J	0.077	0.044	0.05	0.055	0.046	0.043 J	0.05	
Radium 226 + 228	pci/L	3.9	4.22	5.05 J+	4.49	5.18	4.13	4.05	3.19	3.46	4.38	
Radium-226	pci/L	1.12	1.1	1.37	1.01 J+	1.09	0.871	1	0.936	0.83	0.806	
Radium-228	pci/L	2.78	3.12	3.68 J+	3.48	4.08 J+	3.26	3.05	2.26	2.63	3.58	
Selenium	mg/L	0.0031 J	0.0014 J	< 0.025 U	< 0.025 U	0.0021 J	< 0.005 U	0.002 J	0.0015 J	< 0.025 U	0.0013 J	
Thallium	mg/L	< 0.0010 U	< 0.0010 U	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	< 0.001 U	
<b>Field Parameters</b>												
Dissolved Oxygen	mg/L	0.25	0.14	0.19	0.12	0.54	0.35	0.33	0.25	0.14	0.16	0.07
Oxidation-Reduction Potential	millivolts	-262.8	-180	-203.8	-249.3	-145.2	-240.3	-223.6	-231.8	-178.6	-186.7	-213.7
pH	SU	8.65	8.32	8.21	8.12	7.69	8.55	7.95	8.48	8.27	8.32	7.89
Specific Conductance	uS/cm	9658	12860	1362	1359	1306	1360	10400	10830	1253	1226	1229
Temperature	deg C	12.89	14.21	13.08	12.61	12.55	12.49	12.54	12.24	12.79	13.47	13.75
Turbidity	NTU	4.37	2.49	2.72	0.97	0.79	0.79	0.61	1.75	1.51	1.2	0.66

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
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 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.



**Table 3: Analytical Data**  
**CCR Unit Schahfer Landfill Phase V and VI**  
**NIPSCO Rollin M. Schahfer Generating Station**  
**Wheatfield, Indiana**

Analyte	Unit	GAMW24												
		2016-11-11	2016-12-07	2017-01-09	2017-02-28	2017-03-27	2017-04-25	2017-04-25	2017-04-25	2017-06-27	2017-06-27	2017-08-24	2017-10-03	2017-10-03
		N	N	N	N	N	FD	N	FD	N	N	FD	N	
<b>Appendix III Parameters</b>														
Boron	mg/L	0.081 J	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.11 J	0.15 J
Calcium	mg/L	66	61	80	51	72	76	76	51	67	69	82	82	82
Chloride	mg/L	16	14	32	3.6	11	19	20	24	24	16	30	30	30
Fluoride	mg/L	< 5.0 U	0.11 J	0.11 J	0.13 J	0.1 J	0.1 J	0.094 J	0.15 J	0.15 J	0.11 J	0.18 J	0.18 J	0.18 J
Sulfate	mg/L	58	43	51	44	46	63	60	58	58	67	75	73	73
Total Dissolved Solids	mg/L	270	320	340	210	340	310	310	330	330	330	390	430	430
pH	SU	7.47	7.29	7.17	7.31	7.01		7.49		7.31	6.5			6.11
<b>Appendix IV Parameters</b>														
Antimony	mg/L	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Arsenic	mg/L	0.0023 J	0.0023 J	0.0019 J	0.00035 J	0.0017 J	0.0017 J	0.0017 J	0.0017 J	0.0014 J	0.0019 J	0.0019 J	0.0019 J	0.0019 J
Barium	mg/L	0.048	0.049	0.055	0.02	0.039	0.041	0.043	0.028	0.037	0.036			
Beryllium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Cadmium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Chromium	mg/L	0.00026 J	0.00027 J	< 0.002 U	0.00052 J	0.00034 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Cobalt	mg/L	0.00028 J	< 0.001 U	0.00041 J	< 0.001 U	0.00032 J	0.00032 J	0.00039 J	< 0.001 U	0.00019 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Fluoride	mg/L	< 5.0 U	0.11 J	0.11 J	0.13 J	0.1 J	0.1 J	0.094 J	0.15 J	0.15 J	0.11 J	0.18 J	0.18 J	0.18 J
Lead	mg/L	0.00029 J	< 0.001 U	< 0.001 U	< 0.001 U	0.00039 J	0.0006 J	0.0008 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Lithium	mg/L	< 0.0080 U	0.0029 J	0.0029 J	0.0015 J	< 0.008 U	0.004 J	0.004 J	< 0.04 U	< 0.04 U	< 0.04 U	0.0028 J+	0.0028 J+	0.0028 J+
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U
Molybdenum	mg/L	0.0018 J	< 0.01 U	< 0.01 U	0.0031 J	0.0018 J	0.0024 J	0.032 J	0.003 J	0.0013 J	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U
Radium 226 + 228	pci/L	0.882	0.727	0.997	0.629	< 0.38 U	0.308	< 0.361 U	0.538	0.478	< 0.354 U	< 0.354 U	< 0.354 U	< 0.354 U
Radium-226	pci/L	< 0.383 U	0.371 J+	0.433	0.195	0.137	0.193	0.149	0.243	0.172	0.176	0.176	0.176	0.176
Radium-228	pci/L	0.526	0.357	0.564 J+	< 0.495 U	< 0.38 U	< 0.263 U	< 0.361 U	< 0.358 U	< 0.319 U	< 0.354 U	< 0.354 U	< 0.354 U	< 0.354 U
Selenium	mg/L	< 0.0050 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U
Thallium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
<b>Field Parameters</b>														
Dissolved Oxygen	mg/L	0.55	0.44	0.35	0.22	0.13		0.26		0.14	0.26			0.12
Oxidation-Reduction Potential	millivolts	-102.1	-9.9	-63	-68.3	-74.3		-101.1		-97.1	64.4			61.3
pH	SU	7.47	7.29	7.17	7.31	7.01		7.49		7.31	6.5			6.11
Specific Conductance	uS/cm	415	516	574	536	475		534		516	514			553
Temperature	deg C	14.53	12.14	9.52	8.72	8.95		12.63		13.34	15.75			16.16
Turbidity	NTU	2.56	4.35	4.67	4.38	4.77		4.4		4.61	2.82			2.62

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
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 "O" = Indicates the result was identified as an outlier and removed from the background data set.



**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW24B										
		2016-11-11 N	2016-12-07 N	2017-01-09 N	2017-02-28 FD	2017-02-28 N	2017-03-27 N	2017-04-25 N	2017-06-27 N	2017-08-24 FD	2017-08-24 N	2017-10-03 N
<b>Appendix III Parameters</b>												
Boron	mg/L	0.083 J	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.11 J
Calcium	mg/L	55	51	58	50 J	73 J	52	51	51	56	57	54
Chloride	mg/L	6.5	6.2	5.2	3.7 J	18 J	4.3	3.3	3.8	9.9	11	8.4
Fluoride	mg/L	0.14 J	0.13 J	0.14 J	0.13 J	0.11 J	0.14 J	0.12 J	0.15 J	0.14 J	0.12 J	0.16 J
Sulfate	mg/L	55	46	47	51	56	51	52	51	57	61	45
Total Dissolved Solids	mg/L	210	250	230 J+	230 J	320 J	250	210	230	280	290	260
pH	SU	7.12	7.42	7.24		7.55	7.39	7.83	7.61		6.97	6.5
<b>Appendix IV Parameters</b>												
Antimony	mg/L	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Arsenic	mg/L	0.00050 J	0.00041 J	< 0.005 U	< 0.005 U	0.0016 J	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U
Barium	mg/L	0.026	0.024	0.022	0.02 J	0.045 J	0.02	0.019	0.019	0.02	0.022	
Beryllium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Cadmium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Chromium	mg/L	0.0011 J	0.00027 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Cobalt	mg/L	0.00031 J	< 0.001 U	0.00019 J	< 0.001 U	0.00023 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00023 J	
Fluoride	mg/L	0.14 J	0.13 J	0.14 J	0.13 J	0.11 J	0.14 J	0.12 J	0.15 J	0.14 J	0.12 J	0.16 J
Lead	mg/L	0.00069 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00028 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Lithium	mg/L	< 0.0080 U	0.0016 J	0.0019 J	0.0015 J	0.0026 J	< 0.008 U	0.0022 J	< 0.04 U	0.0018 J+	0.0019 J+	
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U
Molybdenum	mg/L	0.0029 J	< 0.01 U	< 0.01 U	0.0088 J	0.0021 J	0.0017 J	0.0016 J	0.0019 J	0.0045 J	0.0016 J	0.0016 J
Radium 226 + 228	pci/L	0.699	0.96	0.63	< 0.454 U	0.372	< 0.357 U	0.323	< 0.296 U	0.521	< 0.35 U	
Radium-226	pci/L	0.456	0.418 J+	< 0.242 U	< 0.152 U	0.166	< 0.0976 U	0.091	0.103	0.16	0.109	
Radium-228	pci/L	< 0.4 U	0.541	< 0.472 U	< 0.454 U	< 0.371 U	< 0.357 U	< 0.278 U	< 0.296 U	< 0.435 U	< 0.35 U	
Selenium	mg/L	< 0.0050 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U
Thallium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
<b>Field Parameters</b>												
Dissolved Oxygen	mg/L	2.23	0.56	0.79		0.49	2.1	0.28	1.31		0.64	0.52
Oxidation-Reduction Potential	millivolts	-92.4	-123.4	-87.1		-119.4	-113.2	-129.3	-110.7		-42.2	-20.4
pH	SU	7.12	7.42	7.24		7.55	7.39	7.83	7.61		6.97	6.5
Specific Conductance	uS/cm	304	404	372		320	336	347	371		359	394
Temperature	deg C	12.8	12.46	11.55		11.11	10.71	14.23	11.86		12.94	13.51
Turbidity	NTU	4.76	4.41	3.66		4.8	4.97	4.97	3.82		3.24	4.3

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UU" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.

**Table 3: Analytical Data**  
**CCR Unit Schahfer Landfill Phase V and VI**  
**NIPSCO Rollin M. Schahfer Generating Station**  
**Wheatfield, Indiana**

Analyte	Unit	GAMW25								
		2016-11-10	2016-12-08	2017-01-11	2017-03-01	2017-03-29	2017-04-26	2017-06-28	2017-08-24	2017-10-03
		N	N	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>										
Boron	mg/L	0.3	0.24	0.21	0.16 J	0.21	0.22	0.2	0.25	0.19 J
Calcium	mg/L	76	65	81	61	90	79	77	82	81
Chloride	mg/L	3.1 J	2.2	2.9	1.8	1.5	1.5 J	1.9	1.5 J	1.8 J
Fluoride	mg/L	2.3 J	1.9 J	1.8 J	1.9	1.9	1.6 J	1.7	1.9 J	1.6 J
Sulfate	mg/L	94	67	70	89	85	64	67	110	82
Total Dissolved Solids	mg/L	400	360	330	350	330	350	360	400	350
pH	SU	6.72	7.26	6.82	7.6	7.16	6.82	6.89	6.61	6.83
<b>Appendix IV Parameters</b>										
Antimony	mg/L	0.00073 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	0.00077 J	< 0.002 U	< 0.002 U	
Arsenic	mg/L	0.0020 J	0.0025 J	0.0019 J	< 0.005 U	< 0.005 U	0.002 J	0.0018 J	0.002 J	
Barium	mg/L	0.036	0.033	0.031	0.024	0.073	0.03	0.03	0.034	
Beryllium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Cadmium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Chromium	mg/L	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	0.00029 J	< 0.002 U	< 0.002 U	< 0.002 U	
Cobalt	mg/L	0.0039 O	0.002	0.0019	0.0012	0.00015 J	0.0014	0.0011	0.00085 J	
Fluoride	mg/L	2.3 J	1.9 J	1.8 J	1.9	1.9	1.6 J	1.7	1.9 J	1.6 J
Lead	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Lithium	mg/L	0.00046 J	0.0042 J	0.0031 J	0.0044 J	< 0.008 U	0.0026 J	< 0.04 U	0.0027 J	
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	
Molybdenum	mg/L	0.0097 J	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	0.0054 J	0.0057 J	0.0049 J	
Radium 226 + 228	pci/L	< 0.393 U	0.794	0.813 J+	0.602	< 0.37 U	< 0.251 U	0.308	< 0.386 U	
Radium-226	pci/L	< 0.385 U	0.246 J+	0.264	< 0.124 U	0.169	< 0.105 U	0.0754	0.0895	
Radium-228	pci/L	< 0.393 U	0.547	0.549 J+	0.535	< 0.37 U	< 0.251 U	< 0.306 U	< 0.386 U	
Selenium	mg/L	0.0010 J	0.0014 J	0.0022 J	< 0.005 U	< 0.005 U	0.0038 J	0.0026 J	0.0026 J	
Thallium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>										
Dissolved Oxygen	mg/L	0.53	0.96	1.28	7.85	5.78	1.92	0.23	1.17	0.08
Oxidation-Reduction Potential	millivolts	-12.2	172.1	24.7	27	-20.6	214.1	33.4	56.9	-4.7
pH	SU	6.72	7.26	6.82	7.6	7.16	6.82	6.89	6.61	6.83
Specific Conductance	uS/cm	527	544	561	568	485	519	541	575	542
Temperature	deg C	16.23	8.04	10.24	7.82	8.68	10.74	13.26	16.39	15.73
Turbidity	NTU	0.76	4.44	2.87	1.17	1.4	1.31	1.8	0.94	0.71

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter

\*"U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.

\*"J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.

\*"J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.

\*"J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.

\*"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.

\*"O" = Indicates the result was identified as an outlier and removed from the background data set.

**Table 3: Analytical Data**  
**CCR Unit Schahfer Landfill Phase V and VI**  
**NIPSCO Rollin M. Schahfer Generating Station**  
**Wheatfield, Indiana**

Analyte	Unit	GAMW25B									
		2016-11-10	2016-11-10	2016-12-08	2017-01-11	2017-03-02	2017-03-29	2017-04-26	2017-06-28	2017-08-24	2017-10-03
		FD	N	N	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>											
Boron	mg/L	0.29	0.29	0.36	0.27	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	0.17 J
Calcium	mg/L	110	99	100	100	94	62	86	83	75	77
Chloride	mg/L	4.9 J	5	4.9 J	5.6	6.5	7.8	7.4	7.1	6.9	6.8
Fluoride	mg/L	0.16 J	0.16 J	0.14 J	0.15 J	0.19 J	0.19 J	0.14 J	0.22 J	0.15 J	0.23 J
Sulfate	mg/L	76	74	62	62	62	59	56	61	71	62
Total Dissolved Solids	mg/L	410	440	450	390	390	360	380	400	370	350
pH	SU		6.66	7.06	6.72	7.33	6.79	7.16	7.01	6.65	6.46
<b>Appendix IV Parameters</b>											
Antimony	mg/L	< 0.0020 U	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Arsenic	mg/L	0.0014 J	0.0011 J	0.00053 J	0.00041 J	< 0.005 U	0.0019 J	< 0.005 U	< 0.005 U	< 0.005 U	
Barium	mg/L	0.076	0.075	0.088	0.084	0.071	0.023	0.069	0.064	0.058	
Beryllium	mg/L	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Cadmium	mg/L	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Chromium	mg/L	0.00053 J	< 0.0020 U	< 0.002 U	0.00038 J	0.00031 J	0.00036 J	< 0.002 U	< 0.002 U	< 0.002 U	
Cobalt	mg/L	0.00044 J	0.00031 J	< 0.001 U	< 0.001 U	< 0.001 U	0.0011	0.00022 J	< 0.001 U	< 0.001 U	
Fluoride	mg/L	0.16 J	0.16 J	0.14 J	0.15 J	0.19 J	0.19 J	0.14 J	0.22 J	0.15 J	0.23 J
Lead	mg/L	0.00063 J	0.00045 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Lithium	mg/L	< 0.0080 U	0.00068 J	0.0027 J	0.0022 J	0.0019 J	< 0.008 U	0.0029 J	< 0.04 U	0.0018 J+	
Mercury	mg/L	< 0.00020 U	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	
Molybdenum	mg/L	0.0010 J	0.0014 J	< 0.01 U	< 0.01 U	0.00096 J	< 0.01 U	< 0.01 U	< 0.01 U	< 0.01 U	
Radium 226 + 228	pci/L	1.23	0.66	0.744	0.826 J+	0.826	< 0.382 U	0.299	0.464	1.12	
Radium-226	pci/L	< 0.532 U	0.554	0.232 J+	0.445	0.297	< 0.0983 U	0.293	0.206	0.28	
Radium-228	pci/L	1.01	< 0.417 U	0.512	< 0.388 U	< 0.535 U	< 0.382 U	< 0.248 U	< 0.451 U	0.838	
Selenium	mg/L	< 0.0050 U	< 0.0050 U	< 0.005 U	< 0.005 U	< 0.005 U	0.0024 J	< 0.005 U	< 0.005 U	< 0.005 U	
Thallium	mg/L	< 0.0010 U	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>											
Dissolved Oxygen	mg/L		0.74	0.98	1.99	3.9	2.28	0.33	0.36	0.06	1.07
Oxidation-Reduction Potential	millivolts		-77.5	-95.6	-52.7	-60.2	-62.8	-107.1	-109.2	-10.5	-17.1
pH	SU		6.66	7.06	6.72	7.33	6.79	7.16	7.01	6.65	6.46
Specific Conductance	uS/cm		560	677	650	654	659	547	577	517	533
Temperature	deg C		13.61	7.79	12.3	11.09	11.04	12	11.61	12.65	12.81
Turbidity	NTU		3.45	2.21	1.13	3.4	3.89	3.04	1.77	0.85	0.78

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celcius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter

"U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.

"J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.

"J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.

"J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.

"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.

"O" = Indicates the result was identified as an outlier and removed from the background data set.





**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW26									
		2016-11-10	2016-12-08	2017-01-11	2017-03-02	2017-03-28	2017-04-26	2017-05-27	2017-06-27	2017-08-23	2017-10-04
		N	N	N	N	N	N	FD	N	N	N
<b>Appendix III Parameters</b>											
Boron	mg/L	0.22	0.25	0.25	0.3	0.32	0.29	0.25	0.26	0.22	0.26
Calcium	mg/L	100	93	110	100	100	99	86	71	94	92
Chloride	mg/L	5.6	6.2	6.6	5	6.5	3.3	3.8	3.8	2.9	2.6
Fluoride	mg/L	2.5	2.5 J	2.3	2.3	2.3	2	2.3	2.3	3	3.1
Sulfate	mg/L	68	68	71	78	94	76	110	110	130	110
Total Dissolved Solids	mg/L	290	430	420	470	500	470	470	460	480	470
pH	SU	8.84	7.57	7.16	7.56	6.93	7.14		7.74	7.09	6.85
<b>Appendix IV Parameters</b>											
Antimony	mg/L	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Arsenic	mg/L	0.0017 J	0.0017 J	0.0012 J	0.001 J	0.00099 J	0.0011 J	0.0012 J	0.00095 J	0.0013 J	
Barium	mg/L	0.045	0.038	0.039	0.031	0.034	0.037	0.037	0.03	0.031	
Beryllium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Cadmium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Chromium	mg/L	< 0.0020 U	< 0.002 U	0.00044 J	0.0005 J	0.0005 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Cobalt	mg/L	0.00060 J	0.001	0.0012	0.0011	0.0013	0.00092 J	0.00053 J	0.00046 J	0.00098 J	
Fluoride	mg/L	2.5	2.5 J	2.3	2.3	2.3	2	2.3	2.3	3	3.1
Lead	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00022 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Lithium	mg/L	0.017	0.0095	0.0091	0.0047 J	< 0.008 U	0.0086	0.014 J	0.015 J	0.0017 J+	
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 UJ	
Molybdenum	mg/L	0.0078 J	< 0.01 U	< 0.01 U	0.0048 J	< 0.01 U	0.0053 J	0.0059 J	0.0044 J	0.0055 J	
Radium 226 + 228	pci/L	0.874	1.03	1.53 J+	< 0.488 U	0.681	0.364	0.752	0.897	1.4	
Radium-226	pci/L	0.351	0.412 J+	0.481	0.269	0.195	0.191	0.517	0.443	0.227	
Radium-228	pci/L	0.524	0.614	1.05 J+	< 0.488 U	0.486	< 0.248 U	< 0.377 U	0.454	1.17	
Selenium	mg/L	0.00049 J	0.0005 J	< 0.005 U	< 0.005 U	0.00058 J	< 0.005 U	0.00096 J	< 0.005 U	< 0.005 U	
Thallium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>											
Dissolved Oxygen	mg/L	0.25	0.73	0.69	0.54	0.22	0.64		0.3	0.23	0.16
Oxidation-Reduction Potential	millivolts	-114.5	-67.8	-74.3	-26.1	-37.6	23.7		-92.4	-19.8	17.5
pH	SU	8.84	7.57	7.16	7.56	6.93	7.14		7.74	7.09	6.85
Specific Conductance	uS/cm	443	630	693	772	677	649		660	667	670
Temperature	deg C	16.48	7.68	10.41	8.65	8.83	11.15		15.05	17.62	17.26
Turbidity	NTU	43.7	3.19	2.1	0.8	1.49	1.35		2.33	1.44	0.7

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.



**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW26B									
		2016-11-10	2016-12-08	2017-01-11	2017-03-02	2017-03-28	2017-04-26	2017-06-27	2017-08-23	2017-10-04	
		N	N	N	N	N	N	N	N	N	
<b>Appendix III Parameters</b>											
Boron	mg/L	0.19 J	0.19 J	< 0.2 U	0.21	0.27	0.23	0.45	0.36	0.4	
Calcium	mg/L	81	68	85	90	100	90	150	120	130	
Chloride	mg/L	8.6	7.5	8.8	12	19	12	42	28	31	
Fluoride	mg/L	0.23 J	0.18 J	0.2 J	0.22 J	0.21 J	0.18 J	0.3 J	0.17 J	0.36 J	
Sulfate	mg/L	63	58	65	150	230	120	510	390	400	
Total Dissolved Solids	mg/L	380	370	340	480	650	460	1100	870	990	
pH	SU	7.28	7.53	7.04	7.71	7.06	7.57	7.47	7.17	6.63	
<b>Appendix IV Parameters</b>											
Antimony	mg/L	< 0.0020 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Arsenic	mg/L	0.00097 J	0.00081 J	0.00048 J	0.00054 J	0.00042 J	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	
Barium	mg/L	0.061	0.058	0.063	0.064	0.067	0.064	0.067	0.06		
Beryllium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Cadmium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Chromium	mg/L	0.00051 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Cobalt	mg/L	0.00033 J	0.00025 J	0.00021 J	< 0.001 U	0.00016 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Fluoride	mg/L	0.23 J	0.18 J	0.2 J	0.22 J	0.21 J	0.18 J	0.3 J	0.17 J	0.36 J	
Lead	mg/L	0.00080 J	< 0.001 U	< 0.001 U	< 0.001 U	0.00019 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Lithium	mg/L	< 0.0080 U	0.0022 J	0.0026 J	0.0043 J	< 0.008 U	0.0039 J	< 0.04 U	0.0038 J+		
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 UJ	< 0.0002 UJ	
Molybdenum	mg/L	0.0012 J	< 0.01 U	< 0.01 U	0.002 J	< 0.01 U	0.0014 J	0.002 J	< 0.01 U	< 0.01 U	
Radium 226 + 228	pci/L	0.536	0.99	0.598 J+	< 0.532 U	0.459	< 0.264 U	0.866	1.25		
Radium-226	pci/L	0.451	0.511 J+	< 0.211 U	0.267	0.32	0.232	0.467	0.331		
Radium-228	pci/L	< 0.382 U	0.479	0.446 J+	< 0.532 U	< 0.332 U	< 0.264 U	0.399	0.924		
Selenium	mg/L	< 0.0050 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	
Thallium	mg/L	< 0.0010 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>											
Dissolved Oxygen	mg/L	0.36	0.59	1.97	1.7	1.08	1.34	0.27	0.14	0.25	
Oxidation-Reduction Potential	millivolts	-85.9	-121.4	-50.6	-57.9	-74.5	-83.1	-96.9	20.6	31.3	
pH	SU	7.28	7.53	7.04	7.71	7.06	7.57	7.47	7.17	6.63	
Specific Conductance	uS/cm	480	534	573	750	838	614	1479	1128	1317	
Temperature	deg C	13.28	7.87	11.97	11.3	11.17	12	12.42	12.87	13.02	
Turbidity	NTU	4.06	1.3	1.5	4.38	3.31	3.65	1.62	0.91	0.67	

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.

**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW27									
		2016-11-09	2016-12-07	2016-12-07	2017-01-10	2017-02-28	2017-03-28	2017-04-26	2017-06-27	2017-08-23	2017-10-03
		N	FD	N	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>											
Boron	mg/L	6.5	4.9	4.8	5	5.1	5.6	4.9	2	4.9	4.9
Calcium	mg/L	190	220	190	230	240	260	220	73	220	200
Chloride	mg/L	24	23	23	28	45	53	48	15	30	31
Fluoride	mg/L	0.42 J	0.36 J	0.33 J	0.45 J	5.4	0.46 J	0.3 J	0.57 J	0.36 J	0.57 J
Sulfate	mg/L	740	640	640	790	840	640	880	90	780	750
Total Dissolved Solids	mg/L	1400	1300	1300	1400	1600	1600	1600	450	1400	1300
pH	SU	7.2		7.25	7.22	7.24	6.89	7.54	7.05	7.11	6.91
<b>Appendix IV Parameters</b>											
Antimony	mg/L	< 0.0020 U	< 0.01 U	< 0.002 U	0.00032 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Arsenic	mg/L	0.018	0.017 J	0.016 J	0.017	0.014	0.018	0.015	0.034	0.021	
Barium	mg/L	0.15	0.17	0.17	0.17	0.17	0.19	0.15	0.12	0.28	
Beryllium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Cadmium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00023 J	< 0.001 U	< 0.001 U	
Chromium	mg/L	< 0.0020 U	0.012	0.00062 J	0.00067 J	0.00035 J	0.001 J	< 0.002 U	< 0.002 U	< 0.002 U	
Cobalt	mg/L	0.0013 J	< 0.005 U	< 0.001 U	0.00036 J	0.00019 J	0.00034 J	< 0.001 U	0.001	0.00026 J	
Fluoride	mg/L	0.42 J	0.36 J	0.33 J	0.45 J	5.4	0.46 J	0.3 J	0.57 J	0.36 J	0.57 J
Lead	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	0.0014	< 0.001 U	0.0021	0.00051 J	0.0014	< 0.001 U	
Lithium	mg/L	0.0019 J	0.0044 J	0.0073 J	0.0052 J	0.0052 J	< 0.008 U	0.0074 J	< 0.04 U	0.003 J+	
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	
Molybdenum	mg/L	1	1	0.94	0.87	1.4	1.3	1.8	0.32	1.2	
Radium 226 + 228	pci/L	2.54	2.6	2.18	2.1	2.64	1.91	1.8	1.11	2.12	
Radium-226	pci/L	1.53	1.54 J+	1.07 J+	1.18	1.58	1.16	1.2	0.36	1.26	
Radium-228	pci/L	1	1.06	1.11	0.923 J+	1.05	0.753	0.594	0.755	0.86	
Selenium	mg/L	< 0.0050 U	< 0.025 U	< 0.005 U	0.00077 J	0.00051 J	0.0008 J	< 0.005 U	< 0.005 U	< 0.005 U	
Thallium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>											
Dissolved Oxygen	mg/L	0.63		0.16	0.18	0.14	0.09	0.14	0.1	0.4	0.09
Oxidation-Reduction Potential	millivolts	-78.5		-105	-69.3	-85.8	-91.1	-88.6	-98.3	-49	-75.6
pH	SU	7.2		7.25	7.22	7.24	6.89	7.54	7.05	7.11	6.91
Specific Conductance	uS/cm	1390		1665	1755	1947	1733	1736	701	1721	1691
Temperature	deg C	16.19		9.91	11.76	10.58	9.93	11.2	16.31	16.57	16.7
Turbidity	NTU	3.34		4.72	4.14	3.56	4.33	3.42	3.87	2.03	1.21

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.



**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW27B									
		2016-11-09	2016-12-07	2017-01-09	2017-02-28	2017-03-28	2017-04-26	2017-06-27	2017-08-23	2017-10-03	
		N	N	N	N	N	N	N	N	N	
<b>Appendix III Parameters</b>											
Boron	mg/L	11	11	11	11	11	9.8	12	12	12	
Calcium	mg/L	410	450	450	430	390	490	270	370	350	
Chloride	mg/L	460	450	450	420	450	480	440	460	420	
Fluoride	mg/L	< 200 U	< 50 U	< 50 U	< 50 U	< 50 U	< 100 U	< 100 U	< 50 U	< 50 U	
Sulfate	mg/L	7900	6800	7000	6800	7100	7400	6400	6700	6300	
Total Dissolved Solids	mg/L	12000	12000	11000	12000	11000	13000	10000	12000	11000	
pH	SU	7.25	7.3	7.19	7.27	6.93	7.4	7.23	7.26	7.01	
<b>Appendix IV Parameters</b>											
Antimony	mg/L	0.0030 J	< 0.01 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.01 U	< 0.002 U		
Arsenic	mg/L	0.0032 J	0.0024 J	0.002 J	0.0018 J	0.0014 J	0.0016 J	< 0.025 U	0.0011 J		
Barium	mg/L	0.05	0.045	0.046	0.044	0.044	0.04	0.03	0.038		
Beryllium	mg/L	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	< 0.001 U		
Cadmium	mg/L	< 0.0050 U	< 0.005 U	< 0.001 U	0.0005 J	< 0.001 U	0.00038 J	< 0.005 U	0.00038 J		
Chromium	mg/L	< 0.010 U	< 0.01 U	< 0.002 U	0.00086 J	0.00086 J	< 0.002 U	< 0.01 U	< 0.002 U		
Cobalt	mg/L	0.00090 J	< 0.005 U	0.00014 J	< 0.001 U	0.00013 J	< 0.001 U	< 0.005 U	< 0.001 U		
Fluoride	mg/L	< 200 U	< 50 U	< 50 U	< 50 U	< 50 U	< 100 U	< 100 U	< 50 U	< 50 U	
Lead	mg/L	0.0015 J	< 0.005 U	< 0.001 U	< 0.001 U	0.00027 J	< 0.001 U	< 0.005 U	< 0.001 U		
Lithium	mg/L	0.019 J	0.029 J	0.027	0.025	0.028	0.04	< 0.2 U	0.029 J+		
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 UJ		
Molybdenum	mg/L	2.9	3	3.4 J+	3.5	3.3	2.9	2.3	3.4		
Radium 226 + 228	pci/L	4.06	4.54	3.28	3.09	3.35	2.45	2.87	3.68		
Radium-226	pci/L	1.9	2.12 J+	1.3	1.19	1.31	1.13	0.993	1.14		
Radium-228	pci/L	2.16	2.41	1.98 J+	1.89	2.03	1.32	1.88	2.54		
Selenium	mg/L	0.0031 J	< 0.025 U	0.002 J	0.002 J	0.0019 J	0.002 J	< 0.025 U	0.0013 J		
Thallium	mg/L	< 0.0050 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	< 0.001 U		
<b>Field Parameters</b>											
Dissolved Oxygen	mg/L	0.58	0.31	0.37	0.28	0.22	0.53	0.24	0.04	0.26	
Oxidation-Reduction Potential	millivolts	-97.4	-108.6	-56.7	-94	-95	-81.5	-81.3	-46.7	-65	
pH	SU	7.25	7.3	7.19	7.27	6.93	7.4	7.23	7.26	7.01	
Specific Conductance	uS/cm	10690	13880	1311	1306	9969	9849	1286	1232	1225	
Temperature	deg C	13.74	9.24	12.58	12.41	11.95	12.33	13.3	13.73	13.98	
Turbidity	NTU	4.18	3.3	0.98	0.59	0.8	1.69	1.57	1.28	0.94	

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided  
 "UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.

**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW28									
		2016-11-10	2016-12-07	2017-01-09	2017-01-09	2017-02-28	2017-03-27	2017-04-27	2017-06-27	2017-08-23	2017-10-03
		N	N	FD	N	N	N	N	N	N	N
<b>Appendix III Parameters</b>											
Boron	mg/L	3.7	3.6	2.9	3	2.7	2.8	3.3	3.4	3.6	3.3
Calcium	mg/L	210	210	200	210	200	220	210	240	230	220
Chloride	mg/L	14	16	17 J	180 J	17	21	25	28	32	32
Fluoride	mg/L	0.36 J	0.32 J	0.36 J	3.3 J	0.4 J	0.33 J	0.24 J	< 20 U	0.25 J	0.37 J
Sulfate	mg/L	650	540	570 J	370 J	570	730	580	690	710	690
Total Dissolved Solids	mg/L	1100	1100	1100	1100	1100	1200	1100	1200	1300	1200
pH	SU	6.73	7.19		7.09	7.21	7.14	7.11	7.38	7.31	6.79
<b>Appendix IV Parameters</b>											
Antimony	mg/L	< 0.0020 U	< 0.01 U	0.30048 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Arsenic	mg/L	0.0030 J	0.0028 J	0.0036 J	0.0034 J	0.0037 J	0.0033 J	0.0034 J	0.0044 J	0.0039 J	
Barium	mg/L	0.19	0.18	0.19	0.2	0.17	0.19	0.17	0.18	0.2	
Beryllium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Cadmium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
Chromium	mg/L	< 0.0020 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	
Cobalt	mg/L	0.0016 J	< 0.005 U	0.30068 J	0.00062 J	0.00068 J	0.00399 J	< 0.001 U	< 0.001 U	< 0.001 U	
Fluoride	mg/L	0.36 J	0.32 J	0.36 J	3.3 J	0.4 J	0.33 J	0.24 J	< 20 U	0.25 J	0.37 J
Lead	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	0.0016 J	< 0.001 U	< 0.001 U	< 0.001 U	
Lithium	mg/L	0.0041 J	0.0078 J	0.0069 J	0.0074 J	0.009	0.009	0.01	< 0.04 U	0.0084 J+	
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	
Molybdenum	mg/L	0.17	0.17	0.087 J+	0.13 J+	0.13	0.19	0.29	0.23	0.23	
Radium 226 + 228	pci/L	2.52	2.23	3.14	2.43	1.93	2.07	1.5	1.58	2.59	
Radium-226	pci/L	1.41	1.69 J+	1.5 J	1.05 J	0.956	1.08	0.935	0.995	1.24	
Radium-228	pci/L	1.11	0.542	1.64 J+	1.38 J+	0.977	0.989	0.566	0.582	1.36	
Selenium	mg/L	< 0.0050 U	< 0.025 U	0.30081 J	0.00048 J	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	
Thallium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	
<b>Field Parameters</b>											
Dissolved Oxygen	mg/L	0.45	0.14		0.25	0.12	0.1	0.26	0.16	0.33	0.17
Oxidation-Reduction Potential	millivolts	-81.2	-80.9		-36.3	-80.7	-90.6	-93	-94.7	-79.1	8.2
pH	SU	6.73	7.19		7.09	7.21	7.14	7.11	7.38	7.31	6.79
Specific Conductance	uS/cm	1172	1476		1444	1444	1116	1238	1493	1558	1519
Temperature	deg C	16.12	9.01		10.44	9.96	9.58	9.8	13.91	16.32	17.1
Turbidity	NTU	4.85	4.32		4.97	4.78	4.52	3.41	3.94	1.32	0.91

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celsius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter  
 "U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.  
 "J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.  
 "J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.  
 "J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.  
 "UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.  
 "O" = Indicates the result was identified as an outlier and removed from the background data set.



**Table 3: Analytical Data  
CCR Unit Schahfer Landfill Phase V and VI  
NIPSCO Rollin M. Schahfer Generating Station  
Wheatfield, Indiana**

Analyte	Unit	GAMW28B										
		2016-11-10	2016-12-08	2017-01-09	2017-03-01	2017-03-27	2017-03-27	2017-04-27	2017-06-27	2017-08-23	2017-08-23	2017-10-03
		N	N	N	N	FD	N	N	N	FD	N	N
<b>Appendix III Parameters</b>												
Boron	mg/L	3.6	4.3	4.3	4	4.2	4.1	4.5	4.8	5.9	5.8	7.2
Calcium	mg/L	250	280	280	240	230	230	230	260	300	280	300
Chloride	mg/L	120	130	130	130	150	160	100	190	160	170	160
Fluoride	mg/L	< 20 U	< 1 U	< 20 U	< 10 U	< 20 U	< 20 U	< 20 U	< 50 U	< 20 U	< 20 U	< 20 U
Sulfate	mg/L	1800	1900	1900	1900	2200	2200	1600	2200	2700	2700	2500
Total Dissolved Solids	mg/L	2900	3700	3900	3200	3800	3800	2700	3700	4600	4600	5700
pH	SU	6.8	7.13	7.1	7.43		7.08	7.26	7.17		7.07	6.62
<b>Appendix IV Parameters</b>												
Antimony	mg/L	< 0.0020 U	< 0.01 U	0.0016 J	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U
Arsenic	mg/L	0.00091 J	< 0.025 U	0.0013 J	< 0.005 U	0.00065 J	0.00061 J	0.00097 J	< 0.025 U	< 0.005 U	< 0.005 U	< 0.005 U
Barium	mg/L	0.061	0.074	0.08	0.081	0.082	0.082	0.074	0.061	0.08	0.076	
Beryllium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Cadmium	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Chromium	mg/L	< 0.0020 U	< 0.01 U	< 0.002 U	< 0.002 U	0.00028 J	0.00032 J	< 0.002 U	< 0.01 U	< 0.002 U	< 0.002 U	< 0.002 U
Cobalt	mg/L	< 0.0010 U	< 0.005 U	0.00034 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U
Fluoride	mg/L	< 20 U	< 1 U	< 20 U	< 10 U	< 20 U	< 20 U	< 20 U	< 50 U	< 20 U	< 20 U	< 20 U
Lead	mg/L	< 0.0010 U	< 0.005 U	< 0.001 U	< 0.001 U	< 0.001 U	0.00018 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
Lithium	mg/L	0.0071 J	0.011 J	0.01	0.0094	0.01	0.011	0.01	0.011 J	0.013 J+	0.011 J+	0.011 J+
Mercury	mg/L	< 0.00020 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U
Molybdenum	mg/L	0.4	0.51	0.5 J+	0.55	0.57	0.56	0.38	0.41	0.74	0.7	0.7
Radium 226 + 228	pci/L	2.25	3.67	3.62	2.28	2.55	2.73	1.26	1.84	2.74	3.02	
Radium-226	pci/L	1.13	1.77 J+	1.33	0.901	1	1.21	0.756	0.904	1.26	1.21	
Radium-228	pci/L	1.12	1.9	2.29 J+	1.37	1.55	1.52	0.504	0.937	1.48	1.81	
Selenium	mg/L	< 0.0050 U	< 0.025 U	0.0021 J	< 0.005 U	0.0009 J	0.00065 J	< 0.005 U	< 0.025 U	< 0.005 U	< 0.005 U	< 0.005 U
Thallium	mg/L	< 0.0010 U	< 0.005 U	0.00042 J	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U
<b>Field Parameters</b>												
Dissolved Oxygen	mg/L	0.33	0.33	0.31	0.27		0.15	0.2	0.1		0.5	0.28
Oxidation-Reduction Potential	millivolts	-100	-49.9	-96	-117.7		-104.4	-96.8	-86.3		-42.2	-15.7
pH	SU	6.8	7.13	7.1	7.43		7.08	7.26	7.17		7.07	6.62
Specific Conductance	uS/cm	2847	4258	4601	4337		3203	2900	4663		4626	5011
Temperature	deg C	13.96	12.32	12.39	11.87		11.55	11.21	12.79		13.35	14.14
Turbidity	NTU	0.8	0.83	0.59	0.6		2.17	1.26	0.93		0.78	1

Note:  
 mg/L = milligram per liter  
 uS/cm = micro Siemens per centimeter  
 deg C = degrees Celcius  
 NTU = Nephelometric Turbidity Units  
 SU = Standard Units  
 pci/L = picocuries per liter

"U" = Indicates the result is not detected above the method detection limit (MDL) for the sample; the quantitation limit (RL) is provided.

"J" = Indicates the result was estimated below the RL but above the MDL by the analytical laboratory; the estimated value is provided.

"J+" = Indicates the result was estimated below the RL but above the MDL and may be biased high; the estimated value is provided.

"J-" = Indicates the result was estimated below the RL but above the MDL and may be biased low; the estimated value is provided.

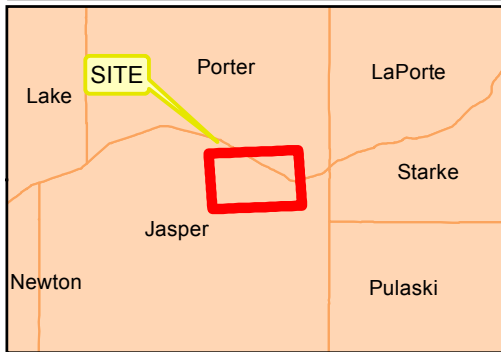
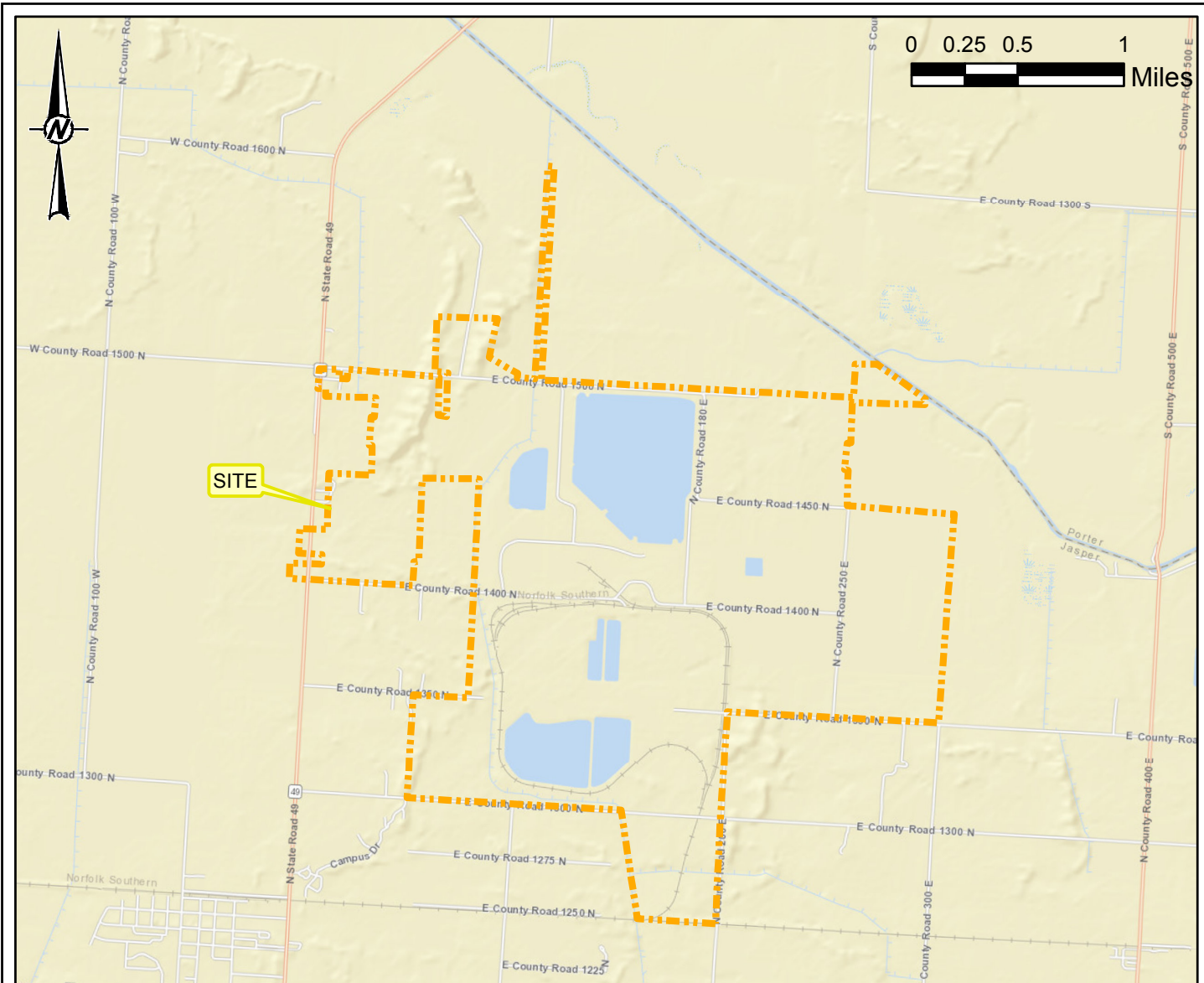
"UJ" = Indicates the result was not detected above the MDL, the estimated RL is provided.

"O" = Indicates the result was identified as an outlier and removed from the background data set.

Prepared by: DFS  
 Checked by: SHL  
 Reviewed by: MAH



## FIGURES



**REFERENCE(S)**  
 SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P CORP., NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI (THAILAND), MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT  
 NORTHERN INDIANA PUBLIC SERVICE COMPANY

PROJECT  
 R.M. SCHAFER GENERATING STATION  
 WHEATFIELD, INDIANA

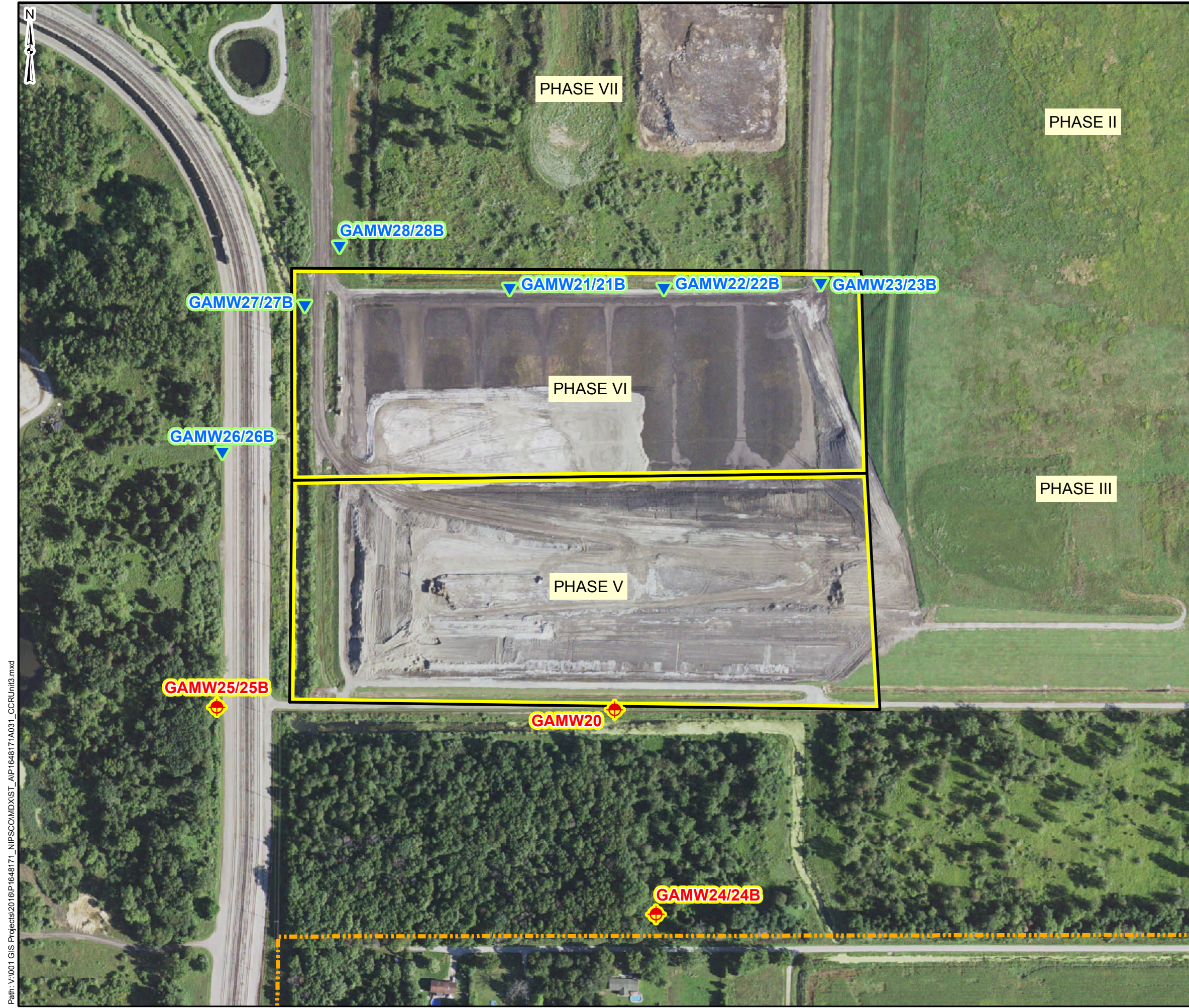
CONSULTANT	YYYY-MM-DD	2018-01-24
	DESIGNED	DFS
	PREPARED	SHL
	REVIEWED	DFS
	APPROVED	MAH








**SITE LOCATION MAP**

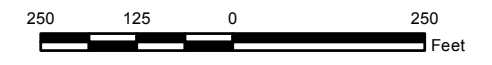
PROJECT NO. 164-8171	CONTROL B	REV. 0	FIGURE 1
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**LEGEND**

-  CCR Background Monitoring Well
-  CCR Downgradient Monitoring Well
-  CCR Units
-  Approximate Property Line
-  Landfill Cell Designation



**NOTES**

1. Groundwater flow direction is North/Northwest based on groundwater elevation data collected during the sampling events.


**REFERENCES**

Service Layer Credits:

REV	DATE	DES	REVISION DESCRIPTION	GIS	CHK	RWW

PROJECT  
**NORTHERN INDIANA PUBLIC SERVICE COMPANY  
 R.M. SCHAFER GENERATING STATION  
 WHEATFIELD, INDIANA**

TITLE  
**MONITORING WELL LOCATIONS  
 SCHAFER LANDFILL PHASE V AND VI**

	PROJECT No.	164-8174	FILE No: 1648171A031_CCRUnit3
	DESIGN	DFS	1/24/2018
	SCALE:	AS SHOWN	REV. 0
	GIS	SHL	1/24/2018
	CHECK	DFS	1/24/2018
REVIEW	MAH	1/24/2018	<p><b>FIGURE 2</b></p>

Path: V:\001 GIS Projects\2016\PI\1648171\_NIPSCOMDXIST\_AIP\1648171A031\_CCRUnit3.mxd