



Dynegy Midwest Generation, LLC  
1500 Eastport Plaza Drive  
Collinsville, IL 62234

March 4, 2024

Illinois Environmental Protection Agency  
DWPC – Permits MC#15  
Attn: Part 845 Coal Combustion Residual Rule Submittal  
1021 North Grand Avenue East  
Springfield, IL 62794

**Re: Hennepin Power Plant East Ash Pond; IEPA ID # W1550100002-05**

Dear Mr. LeCrone:

In accordance with Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.610(b)(3)(D), Dynegy Midwest Generation, LLC is submitting groundwater monitoring data for the Quarter 4, 2023 sampling event at the Hennepin Power Plant East Ash Pond, identified by Illinois Environmental Protection Agency (IEPA) ID No. W1550100002-05. This data is being submitted and placed in the facility's operating record as required by 35 I.A.C. § 845.800(d)(15) within 60 days of receiving final laboratory analytical data. Results were compared with the groundwater protection standards (GWPSs) described in 35 I.A.C. § 845.600 to determine exceedances of the GWPS.

Sincerely,

A handwritten signature in blue ink that reads "Dianna Tickner".

**Dianna Tickner, PE, PMP**  
**Senior Director, Demolition and Decommission**

Enclosures

*Groundwater Monitoring Data and Detected Exceedances, Quarter 4, 2023, East Ash Pond, Hennepin Power Plant, Hennepin, Illinois*

**35 I.A.C. § 845.610(B)(3)(D)  
GROUNDWATER MONITORING DATA AND DETECTED EXCEEDANCES  
QUARTER 4, 2023  
EAST ASH POND, HENNEPIN POWER PLANT, HENNEPIN, ILLINOIS**

March 4, 2024

Samples were collected on November 17 and 20, 2023 and analyzed for the parameters listed in Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.600(a), calcium, and turbidity. Final laboratory analytical data was received on January 4, 2024. Since Quarter 4, 2023 results were not available for inclusion in the 2023 Annual Groundwater Monitoring and Corrective Action Report (2023 Annual Report), this document also serves as an addendum to the 2023 Annual Report.

The monitoring well locations are included in **Figure 1. Attachment A** summarizes the groundwater elevation data for the Quarter 4, 2023 sampling event. **Table 1** is a summary of the field parameters and analytical results. **Attachment B** contains the associated laboratory analytical reports and field data sheets for the Quarter 4, 2023 sampling event.

Statistical procedures used to evaluate groundwater results are provided in Appendix A of the Groundwater Monitoring Plan<sup>1</sup> provided in the operating permit application. In accordance with 35 I.A.C. § 845.610(b)(3)(B), the Quarter 4, 2023 groundwater monitoring data were evaluated for statistical exceedances over background levels for the constituents listed in 35 I.A.C. § 845.600. **Attachment C** shows the statistically derived values compared to background levels.

In accordance with 35 I.A.C. § 845.610(b)(3)(C), the statistically derived values identified as Statistical Results in **Table 2** were compared with the groundwater protection standards (GWPSs) described in 35 I.A.C. § 845.600 to determine exceedances of the GWPS. As shown in **Table 2**, exceedances of the GWPS were not identified.

**TABLES**

- Table 1            Field Parameters and Analytical Results - Quarter 4, 2023
- Table 2            Comparison of Statistical Results to GWPS - Quarter 4, 2023

**FIGURES**

- Figure 1            Monitoring Well Location Map

**ATTACHMENTS**

- Attachment A    Groundwater Elevation Data - Quarter 4, 2023
- Attachment B    Laboratory Reports and Field Data Sheets - Quarter 4, 2023
- Attachment C    Comparison of Statistical Results to Background - Quarter 4, 2023

<sup>1</sup> Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Groundwater Monitoring Plan. East Ash Pond. Hennepin Power Plant. Hennepin, Illinois. October 25, 2021.*

## **TABLES**

**TABLE 1.**  
**FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
07	Background	E003	11/20/2023	Antimony, total	0.0013 U	mg/L
07	Background	E003	11/20/2023	Arsenic, total	0.00043 J	mg/L
07	Background	E003	11/20/2023	Barium, total	0.130	mg/L
07	Background	E003	11/20/2023	Beryllium, total	0.00053 U	mg/L
07	Background	E003	11/20/2023	Boron, total	0.05 UJ	mg/L
07	Background	E003	11/20/2023	Cadmium, total	0.00017 U	mg/L
07	Background	E003	11/20/2023	Calcium, total	120	mg/L
07	Background	E003	11/20/2023	Chloride, total	86.0	mg/L
07	Background	E003	11/20/2023	Chromium, total	0.0018 J	mg/L
07	Background	E003	11/20/2023	Cobalt, total	0.0120	mg/L
07	Background	E003	11/20/2023	Dissolved Oxygen	4.01	mg/L
07	Background	E003	11/20/2023	Fluoride, total	0.120	mg/L
07	Background	E003	11/20/2023	Lead, total	0.00019 U	mg/L
07	Background	E003	11/20/2023	Lithium, total	0.00980	mg/L
07	Background	E003	11/20/2023	Mercury, total	0.000079 U	mg/L
07	Background	E003	11/20/2023	Molybdenum, total	0.0025 U	mg/L
07	Background	E003	11/20/2023	Oxidation Reduction Potential	171	mV
07	Background	E003	11/20/2023	pH (field)	7.0	SU
07	Background	E003	11/20/2023	Radium 226 + Radium 228, total	0.978	pCi/L
07	Background	E003	11/20/2023	Selenium, total	0.00098 U	mg/L
07	Background	E003	11/20/2023	Specific Conductance @ 25C (field)	7,298	micromhos/cm
07	Background	E003	11/20/2023	Sulfate, total	56.0	mg/L
07	Background	E003	11/20/2023	Temperature	11.4	degrees C
07	Background	E003	11/20/2023	Thallium, total	0.00057 U	mg/L
07	Background	E003	11/20/2023	Total Dissolved Solids	690	mg/L
07	Background	E003	11/20/2023	Turbidity, field	0.640	NTU
08	Background	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
08	Background	E003	11/17/2023	Arsenic, total	0.0005 J	mg/L
08	Background	E003	11/17/2023	Barium, total	0.140	mg/L
08	Background	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
08	Background	E003	11/17/2023	Boron, total	0.0950 J+	mg/L
08	Background	E003	11/17/2023	Cadmium, total	0.000500	mg/L
08	Background	E003	11/17/2023	Calcium, total	200	mg/L
08	Background	E003	11/17/2023	Chloride, total	260	mg/L
08	Background	E003	11/17/2023	Chromium, total	0.0011 U	mg/L
08	Background	E003	11/17/2023	Cobalt, total	0.00460	mg/L
08	Background	E003	11/17/2023	Dissolved Oxygen	1.36	mg/L
08	Background	E003	11/17/2023	Fluoride, total	0.089 J	mg/L
08	Background	E003	11/17/2023	Lead, total	0.000660	mg/L
08	Background	E003	11/17/2023	Lithium, total	0.0110	mg/L
08	Background	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
08	Background	E003	11/17/2023	Molybdenum, total	0.0025 U	mg/L
08	Background	E003	11/17/2023	Oxidation Reduction Potential	169	mV
08	Background	E003	11/17/2023	pH (field)	6.9	SU
08	Background	E003	11/17/2023	Radium 226 + Radium 228, total	1.03	pCi/L
08	Background	E003	11/17/2023	Selenium, total	0.00098 U	mg/L

**TABLE 1.**  
**FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
08	Background	E003	11/17/2023	Specific Conductance @ 25C (field)	2,132	micromhos/cm
08	Background	E003	11/17/2023	Sulfate, total	120	mg/L
08	Background	E003	11/17/2023	Temperature	13.6	degrees C
08	Background	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
08	Background	E003	11/17/2023	Total Dissolved Solids	1,100	mg/L
08	Background	E003	11/17/2023	Turbidity, field	0.0300	NTU
08D	Background	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
08D	Background	E003	11/17/2023	Arsenic, total	0.00031 J	mg/L
08D	Background	E003	11/17/2023	Barium, total	0.100	mg/L
08D	Background	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
08D	Background	E003	11/17/2023	Boron, total	0.0710 J+	mg/L
08D	Background	E003	11/17/2023	Cadmium, total	0.00049 J	mg/L
08D	Background	E003	11/17/2023	Calcium, total	180	mg/L
08D	Background	E003	11/17/2023	Chloride, total	250	mg/L
08D	Background	E003	11/17/2023	Chromium, total	0.0017 J	mg/L
08D	Background	E003	11/17/2023	Cobalt, total	0.00410	mg/L
08D	Background	E003	11/17/2023	Dissolved Oxygen	0.120	mg/L
08D	Background	E003	11/17/2023	Fluoride, total	0.097 J	mg/L
08D	Background	E003	11/17/2023	Lead, total	0.00035 J	mg/L
08D	Background	E003	11/17/2023	Lithium, total	0.00920	mg/L
08D	Background	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
08D	Background	E003	11/17/2023	Molybdenum, total	0.0025 U	mg/L
08D	Background	E003	11/17/2023	Oxidation Reduction Potential	152	mV
08D	Background	E003	11/17/2023	pH (field)	6.8	SU
08D	Background	E003	11/17/2023	Radium 226 + Radium 228, total	1.12	pCi/L
08D	Background	E003	11/17/2023	Selenium, total	0.00098 U	mg/L
08D	Background	E003	11/17/2023	Specific Conductance @ 25C (field)	11,218	micromhos/cm
08D	Background	E003	11/17/2023	Sulfate, total	130	mg/L
08D	Background	E003	11/17/2023	Temperature	13.6	degrees C
08D	Background	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
08D	Background	E003	11/17/2023	Total Dissolved Solids	1,300	mg/L
08D	Background	E003	11/17/2023	Turbidity, field	1.86	NTU
16	Background	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
16	Background	E003	11/17/2023	Arsenic, total	0.00051 J	mg/L
16	Background	E003	11/17/2023	Barium, total	0.0730	mg/L
16	Background	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
16	Background	E003	11/17/2023	Boron, total	0.0790 J+	mg/L
16	Background	E003	11/17/2023	Cadmium, total	0.00017 U	mg/L
16	Background	E003	11/17/2023	Calcium, total	82.0	mg/L
16	Background	E003	11/17/2023	Chloride, total	79.0	mg/L
16	Background	E003	11/17/2023	Chromium, total	0.0011 U	mg/L
16	Background	E003	11/17/2023	Cobalt, total	0.0004 U	mg/L
16	Background	E003	11/17/2023	Dissolved Oxygen	5.98	mg/L
16	Background	E003	11/17/2023	Fluoride, total	0.220	mg/L
16	Background	E003	11/17/2023	Lead, total	0.00019 U	mg/L
16	Background	E003	11/17/2023	Lithium, total	0.00580	mg/L

**TABLE 1.**  
**FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
16	Background	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
16	Background	E003	11/17/2023	Molybdenum, total	0.00610	mg/L
16	Background	E003	11/17/2023	Oxidation Reduction Potential	151	mV
16	Background	E003	11/17/2023	pH (field)	7.3	SU
16	Background	E003	11/17/2023	Radium 226 + Radium 228, total	1.01	pCi/L
16	Background	E003	11/17/2023	Selenium, total	0.00098 U	mg/L
16	Background	E003	11/17/2023	Specific Conductance @ 25C (field)	915	micromhos/cm
16	Background	E003	11/17/2023	Sulfate, total	64.0	mg/L
16	Background	E003	11/17/2023	Temperature	15.2	degrees C
16	Background	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
16	Background	E003	11/17/2023	Total Dissolved Solids	420	mg/L
16	Background	E003	11/17/2023	Turbidity, field	0.140	NTU
17	Background	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
17	Background	E003	11/17/2023	Arsenic, total	0.00041 J	mg/L
17	Background	E003	11/17/2023	Barium, total	0.0900	mg/L
17	Background	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
17	Background	E003	11/17/2023	Boron, total	0.110 J+	mg/L
17	Background	E003	11/17/2023	Cadmium, total	0.00017 U	mg/L
17	Background	E003	11/17/2023	Calcium, total	74.0	mg/L
17	Background	E003	11/17/2023	Chloride, total	90.0	mg/L
17	Background	E003	11/17/2023	Chromium, total	0.0011 U	mg/L
17	Background	E003	11/17/2023	Cobalt, total	0.0004 U	mg/L
17	Background	E003	11/17/2023	Dissolved Oxygen	5.69	mg/L
17	Background	E003	11/17/2023	Fluoride, total	0.210	mg/L
17	Background	E003	11/17/2023	Lead, total	0.00019 U	mg/L
17	Background	E003	11/17/2023	Lithium, total	0.0023 J	mg/L
17	Background	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
17	Background	E003	11/17/2023	Molybdenum, total	0.00520	mg/L
17	Background	E003	11/17/2023	Oxidation Reduction Potential	130	mV
17	Background	E003	11/17/2023	pH (field)	7.3	SU
17	Background	E003	11/17/2023	Radium 226 + Radium 228, total	0.759	pCi/L
17	Background	E003	11/17/2023	Selenium, total	0.00098 U	mg/L
17	Background	E003	11/17/2023	Specific Conductance @ 25C (field)	4,723	micromhos/cm
17	Background	E003	11/17/2023	Sulfate, total	62.0	mg/L
17	Background	E003	11/17/2023	Temperature	17.9	degrees C
17	Background	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
17	Background	E003	11/17/2023	Total Dissolved Solids	500	mg/L
17	Background	E003	11/17/2023	Turbidity, field	1.05	NTU
12	Compliance	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
12	Compliance	E003	11/17/2023	Arsenic, total	0.00044 J	mg/L
12	Compliance	E003	11/17/2023	Barium, total	0.0590	mg/L
12	Compliance	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
12	Compliance	E003	11/17/2023	Boron, total	0.130 J+	mg/L
12	Compliance	E003	11/17/2023	Cadmium, total	0.00017 U	mg/L
12	Compliance	E003	11/17/2023	Calcium, total	77.0	mg/L
12	Compliance	E003	11/17/2023	Chloride, total	72.0	mg/L

**TABLE 1.**  
**FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
12	Compliance	E003	11/17/2023	Chromium, total	0.0011 U	mg/L
12	Compliance	E003	11/17/2023	Cobalt, total	0.0004 U	mg/L
12	Compliance	E003	11/17/2023	Dissolved Oxygen	2.30	mg/L
12	Compliance	E003	11/17/2023	Fluoride, total	0.210	mg/L
12	Compliance	E003	11/17/2023	Lead, total	0.00019 U	mg/L
12	Compliance	E003	11/17/2023	Lithium, total	0.00540	mg/L
12	Compliance	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
12	Compliance	E003	11/17/2023	Molybdenum, total	0.0150	mg/L
12	Compliance	E003	11/17/2023	Oxidation Reduction Potential	140	mV
12	Compliance	E003	11/17/2023	pH (field)	7.3	SU
12	Compliance	E003	11/17/2023	Radium 226 + Radium 228, total	1.15	pCi/L
12	Compliance	E003	11/17/2023	Selenium, total	0.00098 U	mg/L
12	Compliance	E003	11/17/2023	Specific Conductance @ 25C (field)	4,714	micromhos/cm
12	Compliance	E003	11/17/2023	Sulfate, total	63.0	mg/L
12	Compliance	E003	11/17/2023	Temperature	18.7	degrees C
12	Compliance	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
12	Compliance	E003	11/17/2023	Total Dissolved Solids	470	mg/L
12	Compliance	E003	11/17/2023	Turbidity, field	1.04	NTU
13	Compliance	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
13	Compliance	E003	11/17/2023	Arsenic, total	0.00052 J	mg/L
13	Compliance	E003	11/17/2023	Barium, total	0.0440	mg/L
13	Compliance	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
13	Compliance	E003	11/17/2023	Boron, total	0.200 J+	mg/L
13	Compliance	E003	11/17/2023	Cadmium, total	0.00017 U	mg/L
13	Compliance	E003	11/17/2023	Calcium, total	76.0	mg/L
13	Compliance	E003	11/17/2023	Chloride, total	69.0	mg/L
13	Compliance	E003	11/17/2023	Chromium, total	0.0011 U	mg/L
13	Compliance	E003	11/17/2023	Cobalt, total	0.0004 U	mg/L
13	Compliance	E003	11/17/2023	Dissolved Oxygen	1.42	mg/L
13	Compliance	E003	11/17/2023	Fluoride, total	0.200	mg/L
13	Compliance	E003	11/17/2023	Lead, total	0.00019 U	mg/L
13	Compliance	E003	11/17/2023	Lithium, total	0.00840	mg/L
13	Compliance	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
13	Compliance	E003	11/17/2023	Molybdenum, total	0.0130	mg/L
13	Compliance	E003	11/17/2023	Oxidation Reduction Potential	168	mV
13	Compliance	E003	11/17/2023	pH (field)	7.5	SU
13	Compliance	E003	11/17/2023	Radium 226 + Radium 228, total	0.608 U*	pCi/L
13	Compliance	E003	11/17/2023	Selenium, total	0.00098 U	mg/L
13	Compliance	E003	11/17/2023	Specific Conductance @ 25C (field)	922	micromhos/cm
13	Compliance	E003	11/17/2023	Sulfate, total	63.0	mg/L
13	Compliance	E003	11/17/2023	Temperature	17.8	degrees C
13	Compliance	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
13	Compliance	E003	11/17/2023	Total Dissolved Solids	500	mg/L
13	Compliance	E003	11/17/2023	Turbidity, field	0.260	NTU
46	Compliance	E003	11/20/2023	Antimony, total	0.0013 U	mg/L
46	Compliance	E003	11/20/2023	Arsenic, total	0.00049 J	mg/L

**TABLE 1.**  
**FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
46	Compliance	E003	11/20/2023	Barium, total	0.0710	mg/L
46	Compliance	E003	11/20/2023	Beryllium, total	0.00053 U	mg/L
46	Compliance	E003	11/20/2023	Boron, total	0.120 J+	mg/L
46	Compliance	E003	11/20/2023	Cadmium, total	0.00017 U	mg/L
46	Compliance	E003	11/20/2023	Calcium, total	79.0	mg/L
46	Compliance	E003	11/20/2023	Chloride, total	70.0	mg/L
46	Compliance	E003	11/20/2023	Chromium, total	0.0011 U	mg/L
46	Compliance	E003	11/20/2023	Cobalt, total	0.0004 U	mg/L
46	Compliance	E003	11/20/2023	Dissolved Oxygen	2.95	mg/L
46	Compliance	E003	11/20/2023	Fluoride, total	0.220	mg/L
46	Compliance	E003	11/20/2023	Lead, total	0.00019 U	mg/L
46	Compliance	E003	11/20/2023	Lithium, total	0.00890	mg/L
46	Compliance	E003	11/20/2023	Mercury, total	0.000079 U	mg/L
46	Compliance	E003	11/20/2023	Molybdenum, total	0.0180	mg/L
46	Compliance	E003	11/20/2023	Oxidation Reduction Potential	221	mV
46	Compliance	E003	11/20/2023	pH (field)	7.3	SU
46	Compliance	E003	11/20/2023	Radium 226 + Radium 228, total	0.544 U*	pCi/L
46	Compliance	E003	11/20/2023	Selenium, total	0.00098 U	mg/L
46	Compliance	E003	11/20/2023	Specific Conductance @ 25C (field)	443	micromhos/cm
46	Compliance	E003	11/20/2023	Sulfate, total	61.0	mg/L
46	Compliance	E003	11/20/2023	Temperature	18.2	degrees C
46	Compliance	E003	11/20/2023	Thallium, total	0.00057 U	mg/L
46	Compliance	E003	11/20/2023	Total Dissolved Solids	490	mg/L
46	Compliance	E003	11/20/2023	Turbidity, field	0.240	NTU
47	Compliance	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
47	Compliance	E003	11/17/2023	Arsenic, total	0.00026 J	mg/L
47	Compliance	E003	11/17/2023	Barium, total	0.0890	mg/L
47	Compliance	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
47	Compliance	E003	11/17/2023	Boron, total	0.360	mg/L
47	Compliance	E003	11/17/2023	Cadmium, total	0.00017 U	mg/L
47	Compliance	E003	11/17/2023	Calcium, total	94.0	mg/L
47	Compliance	E003	11/17/2023	Chloride, total	83.0	mg/L
47	Compliance	E003	11/17/2023	Chromium, total	0.0011 U	mg/L
47	Compliance	E003	11/17/2023	Cobalt, total	0.0004 U	mg/L
47	Compliance	E003	11/17/2023	Dissolved Oxygen	1.56	mg/L
47	Compliance	E003	11/17/2023	Fluoride, total	0.280	mg/L
47	Compliance	E003	11/17/2023	Lead, total	0.00019 U	mg/L
47	Compliance	E003	11/17/2023	Lithium, total	0.00500	mg/L
47	Compliance	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
47	Compliance	E003	11/17/2023	Molybdenum, total	0.0240	mg/L
47	Compliance	E003	11/17/2023	Oxidation Reduction Potential	190	mV
47	Compliance	E003	11/17/2023	pH (field)	7.1	SU
47	Compliance	E003	11/17/2023	Radium 226 + Radium 228, total	1.14	pCi/L
47	Compliance	E003	11/17/2023	Selenium, total	0.00098 U	mg/L
47	Compliance	E003	11/17/2023	Specific Conductance @ 25C (field)	1,044	micromhos/cm
47	Compliance	E003	11/17/2023	Sulfate, total	68.0	mg/L



**TABLE 1.**  
**FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
47	Compliance	E003	11/17/2023	Temperature	17.9	degrees C
47	Compliance	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
47	Compliance	E003	11/17/2023	Total Dissolved Solids	550	mg/L
47	Compliance	E003	11/17/2023	Turbidity, field	0	NTU
52	Compliance	E003	11/20/2023	Antimony, total	0.0013 U	mg/L
52	Compliance	E003	11/20/2023	Arsenic, total	0.00047 J	mg/L
52	Compliance	E003	11/20/2023	Barium, total	0.0970	mg/L
52	Compliance	E003	11/20/2023	Beryllium, total	0.00053 U	mg/L
52	Compliance	E003	11/20/2023	Boron, total	0.210 J+	mg/L
52	Compliance	E003	11/20/2023	Cadmium, total	0.00017 U	mg/L
52	Compliance	E003	11/20/2023	Calcium, total	94.0	mg/L
52	Compliance	E003	11/20/2023	Chloride, total	85.0	mg/L
52	Compliance	E003	11/20/2023	Chromium, total	0.0011 U	mg/L
52	Compliance	E003	11/20/2023	Cobalt, total	0.0004 U	mg/L
52	Compliance	E003	11/20/2023	Dissolved Oxygen	2.30	mg/L
52	Compliance	E003	11/20/2023	Fluoride, total	0.230	mg/L
52	Compliance	E003	11/20/2023	Lead, total	0.00019 U	mg/L
52	Compliance	E003	11/20/2023	Lithium, total	0.00850	mg/L
52	Compliance	E003	11/20/2023	Mercury, total	0.000079 U	mg/L
52	Compliance	E003	11/20/2023	Molybdenum, total	0.0110	mg/L
52	Compliance	E003	11/20/2023	Oxidation Reduction Potential	198	mV
52	Compliance	E003	11/20/2023	pH (field)	7.1	SU
52	Compliance	E003	11/20/2023	Radium 226 + Radium 228, total	0.558 U*	pCi/L
52	Compliance	E003	11/20/2023	Selenium, total	0.00098 U	mg/L
52	Compliance	E003	11/20/2023	Specific Conductance @ 25C (field)	1,130	micromhos/cm
52	Compliance	E003	11/20/2023	Sulfate, total	66.0	mg/L
52	Compliance	E003	11/20/2023	Temperature	18.5	degrees C
52	Compliance	E003	11/20/2023	Thallium, total	0.00057 U	mg/L
52	Compliance	E003	11/20/2023	Total Dissolved Solids	520	mg/L
52	Compliance	E003	11/20/2023	Turbidity, field	1.01	NTU
54	Compliance	E003	11/17/2023	Antimony, total	0.0013 U	mg/L
54	Compliance	E003	11/17/2023	Arsenic, total	0.00031 J	mg/L
54	Compliance	E003	11/17/2023	Barium, total	0.0480	mg/L
54	Compliance	E003	11/17/2023	Beryllium, total	0.00053 U	mg/L
54	Compliance	E003	11/17/2023	Boron, total	0.410	mg/L
54	Compliance	E003	11/17/2023	Cadmium, total	0.00017 U	mg/L
54	Compliance	E003	11/17/2023	Calcium, total	72.0	mg/L
54	Compliance	E003	11/17/2023	Chloride, total	74.0	mg/L
54	Compliance	E003	11/17/2023	Chromium, total	0.0012 J	mg/L
54	Compliance	E003	11/17/2023	Cobalt, total	0.0004 U	mg/L
54	Compliance	E003	11/17/2023	Dissolved Oxygen	0.570	mg/L
54	Compliance	E003	11/17/2023	Fluoride, total	0.280	mg/L
54	Compliance	E003	11/17/2023	Lead, total	0.00019 U	mg/L
54	Compliance	E003	11/17/2023	Lithium, total	0.0120	mg/L
54	Compliance	E003	11/17/2023	Mercury, total	0.000079 U	mg/L
54	Compliance	E003	11/17/2023	Molybdenum, total	0.0310	mg/L

**TABLE 1.**  
**FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
54	Compliance	E003	11/17/2023	Oxidation Reduction Potential	211	mV
54	Compliance	E003	11/17/2023	pH (field)	7.4	SU
54	Compliance	E003	11/17/2023	Radium 226 + Radium 228, total	1.31	pCi/L
54	Compliance	E003	11/17/2023	Selenium, total	0.00098 U	mg/L
54	Compliance	E003	11/17/2023	Specific Conductance @ 25C (field)	4,702	micromhos/cm
54	Compliance	E003	11/17/2023	Sulfate, total	75.0	mg/L
54	Compliance	E003	11/17/2023	Temperature	16.5	degrees C
54	Compliance	E003	11/17/2023	Thallium, total	0.00057 U	mg/L
54	Compliance	E003	11/17/2023	Total Dissolved Solids	490	mg/L
54	Compliance	E003	11/17/2023	Turbidity, field	3.19	NTU

**Notes:**

C = Celsius

cm = centimeter

mg/L = milligrams per liter

mV = millivolts

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

SU = Standard Units

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

J+ = The result is an estimated quantity, but the result may be biased high.

U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

**TABLE 2.**  
**COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
12	UA	E003	Antimony, total	mg/L	12/09/15 - 11/17/23	19	100	All ND - Last	0.003	0.006	Standard	No Exceedance
12	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/17/23	24	100	All ND - Last	0.001	0.010	Standard	No Exceedance
12	UA	E003	Barium, total	mg/L	12/09/15 - 11/17/23	26	0	CI around mean	0.0517	2.0	Standard	No Exceedance
12	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.001	0.004	Standard	No Exceedance
12	UA	E003	Boron, total	mg/L	12/09/15 - 11/17/23	27	0	CB around T-S line	0.0463	2	Standard	No Exceedance
12	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/17/23	28	90	CI around median	0.001	0.005	Standard	No Exceedance
12	UA	E003	Chloride, total	mg/L	12/09/15 - 11/17/23	27	0	CI around mean	70.3	435	Background	No Exceedance
12	UA	E003	Chromium, total	mg/L	12/09/15 - 11/17/23	24	97	CB around T-S line	0.0015	0.1	Standard	No Exceedance
12	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/17/23	22	82	Most recent sample	0.001	0.0380	Background	No Exceedance
12	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/17/23	27	3	CI around median	0.23	4.0	Standard	No Exceedance
12	UA	E003	Lead, total	mg/L	12/09/15 - 11/17/23	24	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
12	UA	E003	Lithium, total	mg/L	12/09/15 - 11/17/23	23	4	CB around linear reg	0.00551	0.04	Standard	No Exceedance
12	UA	E003	Mercury, total	mg/L	12/09/15 - 11/17/23	21	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
12	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/17/23	26	0	CB around linear reg	0.0114	0.1	Standard	No Exceedance
12	UA	E003	pH (field)	SU	12/09/15 - 11/17/23	34	0	CI around mean	7.3/7.4	6.5/9.0	Standard/Standard	No Exceedance
12	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/17/23	22	0	CI around mean	0.477	5	Standard	No Exceedance
12	UA	E003	Selenium, total	mg/L	12/09/15 - 11/17/23	26	57	CI around median	0.001	0.05	Standard	No Exceedance
12	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/17/23	27	0	CI around geomean	63.5	400	Standard	No Exceedance
12	UA	E003	Thallium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.002	0.002	Standard	No Exceedance
12	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	461	1,620	Background	No Exceedance
13	UA	E003	Antimony, total	mg/L	12/09/15 - 11/17/23	19	96	CB around T-S line	0.001	0.006	Standard	No Exceedance
13	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/17/23	24	97	CI around median	0.001	0.010	Standard	No Exceedance
13	UA	E003	Barium, total	mg/L	12/09/15 - 11/17/23	26	0	CI around mean	0.0427	2.0	Standard	No Exceedance
13	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.001	0.004	Standard	No Exceedance
13	UA	E003	Boron, total	mg/L	12/09/15 - 11/17/23	27	0	CI around median	0.345	2	Standard	No Exceedance
13	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/17/23	28	97	CI around median	0.001	0.005	Standard	No Exceedance
13	UA	E003	Chloride, total	mg/L	12/09/15 - 11/17/23	27	0	CI around mean	73.3	435	Background	No Exceedance

**TABLE 2.**  
**COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
13	UA	E003	Chromium, total	mg/L	12/09/15 - 11/17/23	24	86	CB around T-S line	0.00155	0.1	Standard	No Exceedance
13	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/17/23	22	82	Most recent sample	0.001	0.0380	Background	No Exceedance
13	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/17/23	27	3	CI around median	0.2	4.0	Standard	No Exceedance
13	UA	E003	Lead, total	mg/L	12/09/15 - 11/17/23	24	97	CI around median	0.001	0.0075	Standard	No Exceedance
13	UA	E003	Lithium, total	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	0.0164	0.04	Standard	No Exceedance
13	UA	E003	Mercury, total	mg/L	12/09/15 - 11/17/23	21	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
13	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/17/23	26	27	CI around mean	0.0148	0.1	Standard	No Exceedance
13	UA	E003	pH (field)	SU	12/09/15 - 11/17/23	34	0	CI around mean	7.4/7.5	6.5/9.0	Standard/Standard	No Exceedance
13	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/17/23	22	0	CI around mean	0.483	5	Standard	No Exceedance
13	UA	E003	Selenium, total	mg/L	12/09/15 - 11/17/23	26	43	CI around mean	0.00135	0.05	Standard	No Exceedance
13	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/17/23	27	0	CI around mean	76.4	400	Standard	No Exceedance
13	UA	E003	Thallium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.002	0.002	Standard	No Exceedance
13	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/17/23	26	0	CI around mean	479	1,620	Background	No Exceedance
46	UA	E003	Antimony, total	mg/L	12/09/15 - 11/20/23	18	100	All ND - Last	0.003	0.006	Standard	No Exceedance
46	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/20/23	20	100	All ND - Last	0.001	0.010	Standard	No Exceedance
46	UA	E003	Barium, total	mg/L	12/09/15 - 11/20/23	22	0	CB around linear reg	0.0649	2.0	Standard	No Exceedance
46	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/20/23	17	100	All ND - Last	0.001	0.004	Standard	No Exceedance
46	UA	E003	Boron, total	mg/L	12/09/15 - 11/20/23	23	0	CI around mean	0.191	2	Standard	No Exceedance
46	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/20/23	21	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
46	UA	E003	Chloride, total	mg/L	12/09/15 - 11/20/23	23	0	CI around mean	69.8	435	Background	No Exceedance
46	UA	E003	Chromium, total	mg/L	12/09/15 - 11/20/23	20	90	CB around T-S line	0.0015	0.1	Standard	No Exceedance
46	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/20/23	21	100	All ND - Last	0.001	0.0380	Background	No Exceedance
46	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/20/23	23	4	CI around median	0.24	4.0	Standard	No Exceedance
46	UA	E003	Lead, total	mg/L	12/09/15 - 11/20/23	20	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
46	UA	E003	Lithium, total	mg/L	12/09/15 - 11/20/23	22	4	CI around median	0.0089	0.04	Standard	No Exceedance
46	UA	E003	Mercury, total	mg/L	12/09/15 - 11/20/23	17	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
46	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/20/23	22	0	CB around T-S line	0.0104	0.1	Standard	No Exceedance

**TABLE 2.**  
**COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
46	UA	E003	pH (field)	SU	12/09/15 - 11/20/23	23	0	CB around linear reg	7.0/7.3	6.5/9.0	Standard/Standard	No Exceedance
46	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/20/23	22	0	CI around geomean	0.304	5	Standard	No Exceedance
46	UA	E003	Selenium, total	mg/L	12/09/15 - 11/20/23	22	59	CI around median	0.001	0.05	Standard	No Exceedance
46	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/20/23	23	0	CI around geomean	61.9	400	Standard	No Exceedance
46	UA	E003	Thallium, total	mg/L	12/09/15 - 11/20/23	17	100	All ND - Last	0.002	0.002	Standard	No Exceedance
46	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/20/23	23	0	CB around linear reg	448	1,620	Background	No Exceedance
47	UA	E003	Antimony, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.003	0.006	Standard	No Exceedance
47	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/17/23	20	95	CI around median	0.001	0.010	Standard	No Exceedance
47	UA	E003	Barium, total	mg/L	12/09/15 - 11/17/23	22	0	CI around mean	0.0783	2.0	Standard	No Exceedance
47	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/17/23	17	100	All ND - Last	0.001	0.004	Standard	No Exceedance
47	UA	E003	Boron, total	mg/L	12/09/15 - 11/17/23	23	0	CI around geomean	0.211	2	Standard	No Exceedance
47	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/17/23	21	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
47	UA	E003	Chloride, total	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	73.9	435	Background	No Exceedance
47	UA	E003	Chromium, total	mg/L	12/09/15 - 11/17/23	20	95	CB around T-S line	0.00149	0.1	Standard	No Exceedance
47	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/17/23	21	81	CI around median	0.001	0.0380	Background	No Exceedance
47	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/17/23	23	4	CB around T-S line	0.206	4.0	Standard	No Exceedance
47	UA	E003	Lead, total	mg/L	12/09/15 - 11/17/23	20	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
47	UA	E003	Lithium, total	mg/L	12/09/15 - 11/17/23	22	0	CI around mean	0.00839	0.04	Standard	No Exceedance
47	UA	E003	Mercury, total	mg/L	12/09/15 - 11/17/23	17	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
47	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/17/23	22	0	CB around linear reg	0.0133	0.1	Standard	No Exceedance
47	UA	E003	pH (field)	SU	12/09/15 - 11/17/23	23	0	CI around mean	7.0/7.1	6.5/9.0	Standard/Standard	No Exceedance
47	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/17/23	22	0	CI around mean	0.387	5	Standard	No Exceedance
47	UA	E003	Selenium, total	mg/L	12/09/15 - 11/17/23	21	90	CB around T-S line	0.001	0.05	Standard	No Exceedance
47	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	63.8	400	Standard	No Exceedance
47	UA	E003	Thallium, total	mg/L	12/09/15 - 11/17/23	17	100	All ND - Last	0.002	0.002	Standard	No Exceedance
47	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	475	1,620	Background	No Exceedance
52	UA	E003	Antimony, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.003	0.006	Standard	No Exceedance

**TABLE 2.**  
**COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
52	UA	E003	Arsenic, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.001	0.010	Standard	No Exceedance
52	UA	E003	Barium, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	0.0721	2.0	Standard	No Exceedance
52	UA	E003	Beryllium, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.001	0.004	Standard	No Exceedance
52	UA	E003	Boron, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	0.133	2	Standard	No Exceedance
52	UA	E003	Cadmium, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
52	UA	E003	Chloride, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	72.6	435	Background	No Exceedance
52	UA	E003	Chromium, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.005	0.1	Standard	No Exceedance
52	UA	E003	Cobalt, total	mg/L	02/24/21 - 11/20/23	12	92	Most recent sample	0.001	0.0380	Background	No Exceedance
52	UA	E003	Fluoride, total	mg/L	02/24/21 - 11/20/23	12	8	CI around geomean	0.262	4.0	Standard	No Exceedance
52	UA	E003	Lead, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
52	UA	E003	Lithium, total	mg/L	02/24/21 - 11/20/23	12	8	CI around mean	0.00558	0.04	Standard	No Exceedance
52	UA	E003	Mercury, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
52	UA	E003	Molybdenum, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	0.0103	0.1	Standard	No Exceedance
52	UA	E003	pH (field)	SU	02/24/21 - 11/20/23	12	0	CI around mean	7.0/7.4	6.5/9.0	Standard/Standard	No Exceedance
52	UA	E003	Radium 226 + Radium 228, total	pCi/L	02/24/21 - 11/20/23	12	0	CI around mean	0.381	5	Standard	No Exceedance
52	UA	E003	Selenium, total	mg/L	02/24/21 - 11/20/23	12	92	CB around T-S line	0.001	0.05	Standard	No Exceedance
52	UA	E003	Sulfate, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	59	400	Standard	No Exceedance
52	UA	E003	Thallium, total	mg/L	02/24/21 - 11/20/23	12	92	CI around median	0.002	0.002	Standard	No Exceedance
52	UA	E003	Total Dissolved Solids	mg/L	02/24/21 - 11/20/23	11	0	CI around mean	434	1,620	Background	No Exceedance
54	UA	E003	Antimony, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.003	0.006	Standard	No Exceedance
54	UA	E003	Arsenic, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.001	0.010	Standard	No Exceedance
54	UA	E003	Barium, total	mg/L	02/24/21 - 11/17/23	12	0	CB around linear reg	0.0376	2.0	Standard	No Exceedance
54	UA	E003	Beryllium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.001	0.004	Standard	No Exceedance
54	UA	E003	Boron, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	0.485	2	Standard	No Exceedance
54	UA	E003	Cadmium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
54	UA	E003	Chloride, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	79.2	435	Background	No Exceedance
54	UA	E003	Chromium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.005	0.1	Standard	No Exceedance

**TABLE 2.**  
**COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023**  
 845 QUARTERLY REPORT  
 HENNEPIN POWER PLANT  
 EAST ASH POND  
 HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
54	UA	E003	Cobalt, total	mg/L	02/24/21 - 11/17/23	12	83	CI around median	0.001	0.0380	Background	No Exceedance
54	UA	E003	Fluoride, total	mg/L	02/24/21 - 11/17/23	12	8	CB around linear reg	0.179	4.0	Standard	No Exceedance
54	UA	E003	Lead, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
54	UA	E003	Lithium, total	mg/L	02/24/21 - 11/17/23	12	0	CB around linear reg	0.00812	0.04	Standard	No Exceedance
54	UA	E003	Mercury, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
54	UA	E003	Molybdenum, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	0.0208	0.1	Standard	No Exceedance
54	UA	E003	pH (field)	SU	02/24/21 - 11/17/23	12	0	CI around mean	7.0/7.4	6.5/9.0	Standard/Standard	No Exceedance
54	UA	E003	Radium 226 + Radium 228, total	pCi/L	02/24/21 - 11/17/23	12	0	CI around mean	0.132	5	Standard	No Exceedance
54	UA	E003	Selenium, total	mg/L	02/24/21 - 11/17/23	12	50	CB around linear reg	0.00148	0.05	Standard	No Exceedance
54	UA	E003	Sulfate, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	75.5	400	Standard	No Exceedance
54	UA	E003	Thallium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.002	0.002	Standard	No Exceedance
54	UA	E003	Total Dissolved Solids	mg/L	02/24/21 - 11/17/23	10	0	CI around mean	488	1,620	Background	No Exceedance

**TABLE 2.**  
**COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 4, 2023**

845 QUARTERLY REPORT  
HENNEPIN POWER PLANT  
EAST ASH POND  
HENNEPIN, IL

**Notes:**

Compliance Result:

No Exceedance: the statistical result did not exceed the GWPS.

HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

mg/L = milligrams per liter

ND = non-detect

pCi/L = picocuries per liter

SU = standard units

Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result

Statistical Calculation = method used to calculate the statistical result:

All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown

CB around T-S line = Confidence band around Thiel-Sen line

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

Most recent sample = Result for the most recently collected sample used due to insufficient data

Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range

For pH, the values presented are the lower / upper limits

GWPS = Groundwater Protection Standard

GWPS Source:

Standard = standard specified in 35 I.A.C. § 845.600(a)(1)

Background = background concentration (see cover page for additional information)



## FIGURES



- BACKGROUND WELL
- COMPLIANCE WELL
- STAFF GAUGE
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY



**MONITORING WELL LOCATION MAP**

**EAST ASH POND**  
HENNEPIN POWER PLANT  
HENNEPIN, ILLINOIS

**FIGURE 1**

RAMBOLL AMERICAS  
ENGINEERING SOLUTIONS, INC.



Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

## **ATTACHMENTS**

**ATTACHMENT A  
SUMMARY OF GROUNDWATER ELEVATION DATA  
QUARTER 4, 2023**

**ATTACHMENT A.  
GROUNDWATER ELEVATION DATA - QUARTER 4, 2023**

845 QUARTERLY REPORT  
HENNEPIN POWER PLANT  
EAST ASH POND  
HENNEPIN, IL

Well ID	Well Type	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
07	Background	11/13/2023	68.54	449.73
08	Background	11/13/2023	54.02	447.36
08D	Background	11/13/2023	54.23	447.11
12	Compliance	11/13/2023	52.26	446.18
13	Compliance	11/13/2023	51.25	447.22
16	Background	11/13/2023	54.67	447.07
17	Background	11/13/2023	56.23	450.90
46	Compliance	11/13/2023	51.46	447.29
47	Compliance	11/13/2023	55.72	446.93
52	Compliance	11/13/2023	53.88	447.05
54	Compliance	11/13/2023	53.31	446.99
XSG01	Water Level	11/13/2023	10.28	483.21
SG02	Water Level	11/13/2023	NA	441.00

**Notes:**

Only wells with groundwater elevations measured are included.

BMP = below measuring point

NA = not available/not applicable

NAVD88 = North American Vertical Datum of 1988

**ATTACHMENT B  
LABORATORY REPORTS AND FIELD DATA SHEETS  
QUARTER 4, 2023**

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Brian Voelker  
Vistra Energy Corp  
133 S 4th, Suite 206  
Springfield, Illinois 62701  
Generated 01/04/24 16:36:42 Revision 1

## JOB DESCRIPTION

HEN-23Q4  
HEN\_845\_803

## JOB NUMBER

500-242591-17

# Eurofins Chicago

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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## Authorization



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Authorized for release by  
Dirk Nelson, Project Management Assistant II  
[Dirk.Nelson@et.eurofinsus.com](mailto:Dirk.Nelson@et.eurofinsus.com)  
Designee for  
Donna Campbell, Manager of Project Management  
[Donna.Campbell@et.eurofinsus.com](mailto:Donna.Campbell@et.eurofinsus.com)  
(217)519-2114





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## Case Narrative

Client: Vistra Energy Corp  
Project: HEN-23Q4

Job ID: 500-242591-17

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### Job Narrative 500-242591-17

#### Revision

The report being provided is a revision of the original report sent on 12/27/23. The report (revision 1) is being revised due to: Client revision requests:

Add HEN\_13 turbidity per revised purge forms, attach revised purge forms.

#### Receipt

The samples were received on 11/15/2023 11:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 15 coolers at receipt time were 1.8° C, 2.3° C, 2.4° C, 3.0° C, 3.2° C, 4.2° C, 4.4° C, 4.6° C, 4.6° C, 4.9° C, 4.9° C, 5.0° C, 5.0° C, 5.6° C and 5.7° C.

#### Field Service / Mobile Lab

Method Field Sampling: Turbidity value not received for last reading, which was the sample collection time. Affected sample: HEN\_13 (500-242591-25)

#### Metals

Method 6020B: The initial low level calibration verification (ICVL) result for batch 747971 was above the upper control limit for Be. Sample results were non-detects, and have been reported as qualified data.

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

#### General Chemistry

Method 300.0: The matrix spike (MS) recoveries for analytical batch 500-743297 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

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

# Detection Summary

ATTACHMENT B.

845 QUARTERLY REPORT - QUARTER 4, 2023

HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-17

SDG: HEN\_845\_803

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

**Client Sample ID: HEN\_54**

**Lab Sample ID: 500-242591-22**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.012		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00031	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.048		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.41	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	72		0.20	0.044	mg/L	1		6020B	Total Recoverable
Chromium	0.0012	J	0.0050	0.0011	mg/L	1		6020B	Total Recoverable
Magnesium	27		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.031		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	4.3		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	56		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	74		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	75		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	240		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	490		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.28		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	53.1				ft	1		Field Sampling	Total/NA
Field pH	7.36				SU	1		Field Sampling	Total/NA
Field Temperature	16.47				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	210.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.57				mg/L	1		Field Sampling	Total/NA
Specific Conductance	4702.0				umhos/cm	1		Field Sampling	Total/NA
Turbidity	3.19				NTU	1		Field Sampling	Total/NA

**Client Sample ID: HEN\_47**

**Lab Sample ID: 500-242591-23**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0050		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00026	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.089		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.36	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	94		0.20	0.044	mg/L	1		6020B	Total Recoverable
Magnesium	28		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.024		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	4.6		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	58		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	83		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	68		5.0	1.0	mg/L	5		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 Job No: 845082  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Client Sample ID: HEN\_47 (Continued)

## Lab Sample ID: 500-242591-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	290		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	550		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.28		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	55.52				ft	1		Field Sampling	Total/NA
Field pH	7.07				SU	1		Field Sampling	Total/NA
Field Temperature	17.87				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	189.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	1.56				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1043.6				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.00				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_12

## Lab Sample ID: 500-242591-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0054		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00044	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.059		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.13	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	77		0.20	0.044	mg/L	1		6020B	Total Recoverable
Magnesium	30		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.015		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	4.1		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	49		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	72		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	63		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	260		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	470		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.21		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	51.08				ft	1		Field Sampling	Total/NA
Field pH	7.35				SU	1		Field Sampling	Total/NA
Field Temperature	18.67				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	140.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.30				mg/L	1		Field Sampling	Total/NA
Specific Conductance	4713.8				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.04				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_13

## Lab Sample ID: 500-242591-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0084		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00052	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.044		0.0025	0.00073	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

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# Detection Summary

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 HEN\_845\_803  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Client Sample ID: HEN\_13 (Continued)

## Lab Sample ID: 500-242591-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.20	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	76		0.20	0.044	mg/L	1		6020B	Total Recoverable
Magnesium	30		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.013		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	4.0		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	47		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	69		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	63		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	260		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	500		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.20		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	51.05				ft	1		Field Sampling	Total/NA
Field pH	7.46				SU	1		Field Sampling	Total/NA
Field Temperature	17.76				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	168.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	1.42				mg/L	1		Field Sampling	Total/NA
Specific Conductance	922.27				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.26				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_08&D

## Lab Sample ID: 500-242591-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0092		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00031	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.10		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.071	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.00049	J	0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	180		0.20	0.044	mg/L	1		6020B	Total Recoverable
Chromium	0.0017	J	0.0050	0.0011	mg/L	1		6020B	Total Recoverable
Cobalt	0.0041		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00035	J	0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	52		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	3.5		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	150		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	250		10	1.2	mg/L	10		300.0	Total/NA
Sulfate	130		10	2.1	mg/L	10		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	540		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1300		10	4.3	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Detection Summary

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 Job No: 845082  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Client Sample ID: HEN\_08&D (Continued)

## Lab Sample ID: 500-242591-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.097	J	0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	54.05				ft	1		Field Sampling	Total/NA
Field pH	6.76				SU	1		Field Sampling	Total/NA
Field Temperature	13.63				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	152.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.12				mg/L	1		Field Sampling	Total/NA
Specific Conductance	11218				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.86				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_08

## Lab Sample ID: 500-242591-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.011		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00050	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.14		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.095	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.00050		0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	200		0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0046		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00066		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	54		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	9.6		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	150		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	260		10	1.2	mg/L	10		300.0	Total/NA
Sulfate	120		10	2.1	mg/L	10		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	520		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1100		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.089	J	0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	53.85				ft	1		Field Sampling	Total/NA
Field pH	6.89				SU	1		Field Sampling	Total/NA
Field Temperature	13.63				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	168.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	1.36				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2132.0				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.03				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_08\_FD

## Lab Sample ID: 500-242591-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.010		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00040	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

# Detection Summary

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Client Sample ID: HEN\_08\_FD (Continued)

## Lab Sample ID: 500-242591-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.11		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.091	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.00035	J	0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	180		0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0041		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00049	J	0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	48		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	8.5		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	130		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	260		10	1.2	mg/L	10		300.0	Total/NA
Sulfate	120		10	2.1	mg/L	10		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	520		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1200		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.087	J	0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	53.85				ft	1		Field Sampling	Total/NA
Field pH	6.89				SU	1		Field Sampling	Total/NA
Field Temperature	13.63				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	168.7				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	1.36				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2132.0				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.03				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_17

## Lab Sample ID: 500-242591-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0023	J	0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00041	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.090		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.11	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	74	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Magnesium	30		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0052		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	4.3		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	63	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	90		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	62		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	230		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	500		10	4.3	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Client Sample ID: HEN\_17 (Continued)

## Lab Sample ID: 500-242591-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.21		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	55.35				ft	1		Field Sampling	Total/NA
Field pH	7.34				SU	1		Field Sampling	Total/NA
Field Temperature	17.89				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	130.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	5.69				mg/L	1		Field Sampling	Total/NA
Specific Conductance	4723.0				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.05				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_16

## Lab Sample ID: 500-242591-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0058		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00051	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.073		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.079	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	82	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Magnesium	28		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0061		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	4.2		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	56	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	79		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	64		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	230		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	420		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.22		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	54.42				ft	1		Field Sampling	Total/NA
Field pH	7.34				SU	1		Field Sampling	Total/NA
Field Temperature	15.24				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	151.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	5.98				mg/L	1		Field Sampling	Total/NA
Specific Conductance	915.25				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.14				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_46

## Lab Sample ID: 500-242591-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0089		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00049	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.071		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.12	B	0.050	0.013	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

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# Detection Summary

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 Job No: 845002  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Client Sample ID: HEN\_46 (Continued)

## Lab Sample ID: 500-242591-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	79	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Magnesium	31		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.018		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	4.3		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	50	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	70		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	61		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	240		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	490		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.22		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	51.58				ft	1		Field Sampling	Total/NA
Field pH	7.27				SU	1		Field Sampling	Total/NA
Field Temperature	18.16				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	221.0				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.95				mg/L	1		Field Sampling	Total/NA
Specific Conductance	442.66				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.24				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_52

## Lab Sample ID: 500-242591-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0085		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00047	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.097		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.21	B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	94	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Magnesium	31		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.011		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	5.1		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	64	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	85		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	66		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	260		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	520		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.23		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	53.93				ft	1		Field Sampling	Total/NA
Field pH	7.09				SU	1		Field Sampling	Total/NA
Field Temperature	18.47				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	198.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	2.30				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1129.6				umhos/cm	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

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# Detection Summary

ATTACHMENT B.

845 QUARTERLY REPORT - QUARTER 4, 2023

HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-17

SDG: HEN\_845\_803

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

## Client Sample ID: HEN\_52 (Continued)

## Lab Sample ID: 500-242591-37

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Turbidity	1.01				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_07

## Lab Sample ID: 500-242591-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0098		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00043	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.13		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.038	J B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	120	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Chromium	0.0018	J	0.0050	0.0011	mg/L	1		6020B	Total Recoverable
Cobalt	0.012		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Magnesium	42		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	3.1		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	64	B	0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	86		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	56		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	370		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	690		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.12		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	68.55				ft	1		Field Sampling	Total/NA
Field pH	6.96				SU	1		Field Sampling	Total/NA
Field Temperature	11.42				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	171.3				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	4.01				mg/L	1		Field Sampling	Total/NA
Specific Conductance	7297.8				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.64				NTU	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_55

## Lab Sample ID: 500-242591-51

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Depth to Water (ft from MP)	51.26				ft	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_XSG01

## Lab Sample ID: 500-242591-55

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Depth to Water (ft from MP)	10.28				ft	1		Field Sampling	Total/NA

## Client Sample ID: HEN\_YSG\_ILRIVER

## Lab Sample ID: 500-242591-56

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Groundwater Elevation	441.0				ft	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

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# Method Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-17  
Job No: 845-803  
SDG: HEN\_845\_803

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	EET CHI
6020B	Metals (ICP/MS)	SW846	EET CHI
7470A	Mercury (CVAA)	SW846	EET CHI
300.0	Anions, Ion Chromatography	EPA	EET CHI
SM 2320B	Alkalinity	SM	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
Field Sampling	Field Sampling	EPA	EET CHI
200.7	Preparation, Total Recoverable Metals	EPA	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI
7470A	Preparation, Mercury	SW846	EET CHI

### Protocol References:

EPA = US Environmental Protection Agency

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

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

### Laboratory References:

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

# Sample Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-17  
SDG: HEN\_845\_803

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-242591-22	HEN_54	Water	11/17/23 09:02	11/17/23 18:00
500-242591-23	HEN_47	Water	11/17/23 09:33	11/17/23 18:00
500-242591-24	HEN_12	Water	11/17/23 10:19	11/17/23 18:00
500-242591-25	HEN_13	Water	11/17/23 10:21	11/17/23 18:00
500-242591-26	HEN_08&D	Water	11/17/23 12:31	11/17/23 18:00
500-242591-27	HEN_08	Water	11/17/23 12:32	11/17/23 18:00
500-242591-28	HEN_08_FD	Water	11/17/23 12:37	11/17/23 18:00
500-242591-30	HEN_17	Water	11/17/23 14:17	11/17/23 18:00
500-242591-31	HEN_16	Water	11/17/23 14:29	11/17/23 18:00
500-242591-35	HEN_46	Water	11/20/23 09:13	11/21/23 08:06
500-242591-37	HEN_52	Water	11/20/23 10:18	11/21/23 08:06
500-242591-38	HEN_07	Water	11/20/23 13:12	11/21/23 08:06
500-242591-51	HEN_55	Water	11/13/23 08:46	12/06/23 07:24
500-242591-55	HEN_XSG01	Water	11/13/23 16:18	12/06/23 07:24
500-242591-56	HEN_YSG_ILRIVER	Water	11/13/23 00:00	12/06/23 07:24

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# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_54**  
**Date Collected: 11/17/23 09:02**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-22**  
**Matrix: Water**

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.012		0.0050	0.0020	mg/L		11/20/23 17:49	11/21/23 18:07	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 15:33	1
Arsenic	0.00031	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 15:33	1
Barium	0.048		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 15:33	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 15:33	1
Boron	0.41	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:19	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 15:33	1
Calcium	72		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 15:33	1
Chromium	0.0012	J	0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 15:33	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 15:33	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 15:33	1
Magnesium	27		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 15:33	1
Molybdenum	0.031		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 15:33	1
Potassium	4.3		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 15:33	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 15:33	1
Sodium	56		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 15:33	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 15:33	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:25	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	74		5.0	0.58	mg/L			11/21/23 15:11	5
Sulfate (EPA 300.0)	75		5.0	1.0	mg/L			11/21/23 15:11	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	240		5.0	3.7	mg/L			11/21/23 14:26	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 14:26	1
Total Dissolved Solids (SM 2540C)	490		10	4.3	mg/L			11/19/23 23:18	1
Fluoride (SM 4500 F C)	0.28		0.10	0.056	mg/L			12/01/23 16:03	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	53.1				ft			11/17/23 09:02	1
Field pH	7.36				SU			11/17/23 09:02	1
Field Temperature	16.47				Degrees C			11/17/23 09:02	1
Oxidation Reduction Potential	210.6				millivolts			11/17/23 09:02	1
Oxygen, Dissolved	0.57				mg/L			11/17/23 09:02	1
Specific Conductance	4702.0				umhos/cm			11/17/23 09:02	1
Turbidity	3.19				NTU			11/17/23 09:02	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_47**  
**Date Collected: 11/17/23 09:33**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-23**  
**Matrix: Water**

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0050		0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 13:38	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 15:36	1
Arsenic	0.00026	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 15:36	1
Barium	0.089		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 15:36	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 15:36	1
Boron	0.36	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:23	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 15:36	1
Calcium	94		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 15:36	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 15:36	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 15:36	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 15:36	1
Magnesium	28		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 15:36	1
Molybdenum	0.024		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 15:36	1
Potassium	4.6		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 15:36	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 15:36	1
Sodium	58		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 15:36	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 15:36	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:27	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	83		5.0	0.58	mg/L			11/21/23 15:27	5
Sulfate (EPA 300.0)	68		5.0	1.0	mg/L			11/21/23 15:27	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	290		5.0	3.7	mg/L			11/21/23 15:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 15:00	1
Total Dissolved Solids (SM 2540C)	550		10	4.3	mg/L			11/19/23 23:20	1
Fluoride (SM 4500 F C)	0.28		0.10	0.056	mg/L			12/01/23 16:08	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	55.52				ft			11/17/23 09:33	1
Field pH	7.07				SU			11/17/23 09:33	1
Field Temperature	17.87				Degrees C			11/17/23 09:33	1
Oxidation Reduction Potential	189.7				millivolts			11/17/23 09:33	1
Oxygen, Dissolved	1.56				mg/L			11/17/23 09:33	1
Specific Conductance	1043.6				umhos/cm			11/17/23 09:33	1
Turbidity	0.00				NTU			11/17/23 09:33	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_12**  
**Date Collected: 11/17/23 10:19**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-24**  
**Matrix: Water**

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0054		0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 13:42	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 15:40	1
Arsenic	0.00044	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 15:40	1
Barium	0.059		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 15:40	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 15:40	1
Boron	0.13	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:27	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 15:40	1
Calcium	77		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 15:40	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 15:40	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 15:40	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 15:40	1
Magnesium	30		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 15:40	1
Molybdenum	0.015		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 15:40	1
Potassium	4.1		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 15:40	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 15:40	1
Sodium	49		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 15:40	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 15:40	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:29	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	72		5.0	0.58	mg/L			11/21/23 15:42	5
Sulfate (EPA 300.0)	63		5.0	1.0	mg/L			11/21/23 15:42	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	260		5.0	3.7	mg/L			11/21/23 15:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 15:09	1
Total Dissolved Solids (SM 2540C)	470		10	4.3	mg/L			11/19/23 23:23	1
Fluoride (SM 4500 F C)	0.21		0.10	0.056	mg/L			12/01/23 16:12	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	51.08				ft			11/17/23 10:19	1
Field pH	7.35				SU			11/17/23 10:19	1
Field Temperature	18.67				Degrees C			11/17/23 10:19	1
Oxidation Reduction Potential	140.1				millivolts			11/17/23 10:19	1
Oxygen, Dissolved	2.30				mg/L			11/17/23 10:19	1
Specific Conductance	4713.8				umhos/cm			11/17/23 10:19	1
Turbidity	1.04				NTU			11/17/23 10:19	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

Client Sample ID: HEN\_13

Lab Sample ID: 500-242591-25

Date Collected: 11/17/23 10:21

Matrix: Water

Date Received: 11/17/23 18:00

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0084		0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 13:46	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 15:44	1
Arsenic	0.00052	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 15:44	1
Barium	0.044		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 15:44	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 15:44	1
Boron	0.20	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:31	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 15:44	1
Calcium	76		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 15:44	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 15:44	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 15:44	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 15:44	1
Magnesium	30		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 15:44	1
Molybdenum	0.013		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 15:44	1
Potassium	4.0		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 15:44	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 15:44	1
Sodium	47		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 15:44	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 15:44	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:32	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	69		5.0	0.58	mg/L			11/21/23 15:57	5
Sulfate (EPA 300.0)	63		5.0	1.0	mg/L			11/21/23 15:57	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	260		5.0	3.7	mg/L			11/21/23 15:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 15:18	1
Total Dissolved Solids (SM 2540C)	500		10	4.3	mg/L			11/19/23 23:26	1
Fluoride (SM 4500 F C)	0.20		0.10	0.056	mg/L			12/06/23 16:07	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	51.05				ft			11/17/23 10:21	1
Field pH	7.46				SU			11/17/23 10:21	1
Field Temperature	17.76				Degrees C			11/17/23 10:21	1
Oxidation Reduction Potential	168.3				millivolts			11/17/23 10:21	1
Oxygen, Dissolved	1.42				mg/L			11/17/23 10:21	1
Specific Conductance	922.27				umhos/cm			11/17/23 10:21	1
Turbidity	0.26				NTU			11/17/23 10:21	1



# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

Client Sample ID: HEN\_08&D

Lab Sample ID: 500-242591-26

Date Collected: 11/17/23 12:31

Matrix: Water

Date Received: 11/17/23 18:00

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0092		0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 13:50	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 15:48	1
Arsenic	0.00031	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 15:48	1
Barium	0.10		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 15:48	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 15:48	1
Boron	0.071	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:34	1
Cadmium	0.00049	J	0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 15:48	1
Calcium	180		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 15:48	1
Chromium	0.0017	J	0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 15:48	1
Cobalt	0.0041		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 15:48	1
Lead	0.00035	J	0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 15:48	1
Magnesium	52		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 15:48	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 15:48	1
Potassium	3.5		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 15:48	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 15:48	1
Sodium	150		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 15:48	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 15:48	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:34	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	250		10	1.2	mg/L			11/21/23 16:12	10
Sulfate (EPA 300.0)	130		10	2.1	mg/L			11/21/23 16:12	10
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	540		5.0	3.7	mg/L			11/21/23 15:40	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 15:40	1
Total Dissolved Solids (SM 2540C)	1300		10	4.3	mg/L			11/19/23 23:28	1
Fluoride (SM 4500 F C)	0.097	J	0.10	0.056	mg/L			12/01/23 16:22	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	54.05				ft			11/17/23 12:31	1
Field pH	6.76				SU			11/17/23 12:31	1
Field Temperature	13.63				Degrees C			11/17/23 12:31	1
Oxidation Reduction Potential	152.3				millivolts			11/17/23 12:31	1
Oxygen, Dissolved	0.12				mg/L			11/17/23 12:31	1
Specific Conductance	11218				umhos/cm			11/17/23 12:31	1
Turbidity	1.86				NTU			11/17/23 12:31	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_08**

**Lab Sample ID: 500-242591-27**

Date Collected: 11/17/23 12:32

Matrix: Water

Date Received: 11/17/23 18:00

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.011		0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 13:55	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 16:12	1
Arsenic	0.00050	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 16:12	1
Barium	0.14		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 16:12	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:12	1
Boron	0.095	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:46	1
Cadmium	0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 16:12	1
Calcium	200		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 16:12	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 16:12	1
Cobalt	0.0046		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 16:12	1
Lead	0.00066		0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 16:12	1
Magnesium	54		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 16:12	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 16:12	1
Potassium	9.6		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 16:12	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:12	1
Sodium	150		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 16:12	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 16:12	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:36	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	260		10	1.2	mg/L			11/21/23 16:58	10
Sulfate (EPA 300.0)	120		10	2.1	mg/L			11/21/23 16:58	10
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	520		5.0	3.7	mg/L			11/21/23 15:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 15:51	1
Total Dissolved Solids (SM 2540C)	1100		10	4.3	mg/L			11/19/23 23:31	1
Fluoride (SM 4500 F C)	0.089	J	0.10	0.056	mg/L			12/01/23 16:27	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	53.85				ft			11/17/23 12:32	1
Field pH	6.89				SU			11/17/23 12:32	1
Field Temperature	13.63				Degrees C			11/17/23 12:32	1
Oxidation Reduction Potential	168.7				millivolts			11/17/23 12:32	1
Oxygen, Dissolved	1.36				mg/L			11/17/23 12:32	1
Specific Conductance	2132.0				umhos/cm			11/17/23 12:32	1
Turbidity	0.03				NTU			11/17/23 12:32	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_08\_FD**  
**Date Collected: 11/17/23 12:37**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-28**  
**Matrix: Water**

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.010		0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 13:59	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 16:24	1
Arsenic	0.00040	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 16:24	1
Barium	0.11		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 16:24	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:24	1
Boron	0.091	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:49	1
Cadmium	0.00035	J	0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 16:24	1
Calcium	180		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 16:24	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 16:24	1
Cobalt	0.0041		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 16:24	1
Lead	0.00049	J	0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 16:24	1
Magnesium	48		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 16:24	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 16:24	1
Potassium	8.5		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 16:24	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:24	1
Sodium	130		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 16:24	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 16:24	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:38	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	260		10	1.2	mg/L			11/21/23 17:13	10
Sulfate (EPA 300.0)	120		10	2.1	mg/L			11/21/23 17:13	10
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	520		5.0	3.7	mg/L			11/21/23 16:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 16:01	1
Total Dissolved Solids (SM 2540C)	1200		10	4.3	mg/L			11/19/23 23:33	1
Fluoride (SM 4500 F C)	0.087	J	0.10	0.056	mg/L			12/06/23 16:34	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	53.85				ft			11/17/23 12:37	1
Field pH	6.89				SU			11/17/23 12:37	1
Field Temperature	13.63				Degrees C			11/17/23 12:37	1
Oxidation Reduction Potential	168.7				millivolts			11/17/23 12:37	1
Oxygen, Dissolved	1.36				mg/L			11/17/23 12:37	1
Specific Conductance	2132.0				umhos/cm			11/17/23 12:37	1
Turbidity	0.03				NTU			11/17/23 12:37	1

# Client Sample Results

ATTACHMENT B.

845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

Client Sample ID: HEN\_17

Lab Sample ID: 500-242591-30

Date Collected: 11/17/23 14:17

Matrix: Water

Date Received: 11/17/23 18:00

## Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0023	J	0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 14:03	1

## Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/20/23 21:50	1
Arsenic	0.00041	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/20/23 21:50	1
Barium	0.090		0.0025	0.00073	mg/L		12/06/23 09:21	12/20/23 21:50	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:27	1
Boron	0.11	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:53	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/20/23 21:50	1
Calcium	74	B	0.20	0.044	mg/L		12/06/23 09:21	12/20/23 21:50	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/20/23 21:50	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/20/23 21:50	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/20/23 21:50	1
Magnesium	30		0.20	0.049	mg/L		12/06/23 09:21	12/20/23 21:50	1
Molybdenum	0.0052		0.0050	0.0025	mg/L		12/06/23 09:21	12/20/23 21:50	1
Potassium	4.3		0.50	0.11	mg/L		12/06/23 09:21	12/20/23 21:50	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:27	1
Sodium	63	B	0.20	0.077	mg/L		12/06/23 09:21	12/20/23 21:50	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/20/23 21:50	1

## Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:44	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	90		5.0	0.58	mg/L			11/21/23 17:28	5
Sulfate (EPA 300.0)	62		5.0	1.0	mg/L			11/21/23 17:28	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	230		5.0	3.7	mg/L			11/21/23 16:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 16:11	1
Total Dissolved Solids (SM 2540C)	500		10	4.3	mg/L			11/19/23 23:36	1
Fluoride (SM 4500 F C)	0.21		0.10	0.056	mg/L			12/01/23 18:13	1

## Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	55.35				ft			11/17/23 14:17	1
Field pH	7.34				SU			11/17/23 14:17	1
Field Temperature	17.89				Degrees C			11/17/23 14:17	1
Oxidation Reduction Potential	130.3				millivolts			11/17/23 14:17	1
Oxygen, Dissolved	5.69				mg/L			11/17/23 14:17	1
Specific Conductance	4723.0				umhos/cm			11/17/23 14:17	1
Turbidity	1.05				NTU			11/17/23 14:17	1

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# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_16**  
**Date Collected: 11/17/23 14:29**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-31**  
**Matrix: Water**

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0058		0.0050	0.0020	mg/L		12/05/23 09:07	12/06/23 13:46	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/20/23 21:54	1
Arsenic	0.00051	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/20/23 21:54	1
Barium	0.073		0.0025	0.00073	mg/L		12/06/23 09:21	12/20/23 21:54	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:31	1
Boron	0.079	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 11:57	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/20/23 21:54	1
Calcium	82	B	0.20	0.044	mg/L		12/06/23 09:21	12/20/23 21:54	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/20/23 21:54	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/20/23 21:54	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/20/23 21:54	1
Magnesium	28		0.20	0.049	mg/L		12/06/23 09:21	12/20/23 21:54	1
Molybdenum	0.0061		0.0050	0.0025	mg/L		12/06/23 09:21	12/20/23 21:54	1
Potassium	4.2		0.50	0.11	mg/L		12/06/23 09:21	12/20/23 21:54	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:31	1
Sodium	56	B	0.20	0.077	mg/L		12/06/23 09:21	12/20/23 21:54	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/20/23 21:54	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:46	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	79		5.0	0.58	mg/L			11/21/23 17:43	5
Sulfate (EPA 300.0)	64		5.0	1.0	mg/L			11/21/23 17:43	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	230		5.0	3.7	mg/L			11/21/23 16:20	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 16:20	1
Total Dissolved Solids (SM 2540C)	420		10	4.3	mg/L			11/20/23 22:58	1
Fluoride (SM 4500 F C)	0.22		0.10	0.056	mg/L			12/01/23 17:12	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	54.42				ft			11/17/23 14:29	1
Field pH	7.34				SU			11/17/23 14:29	1
Field Temperature	15.24				Degrees C			11/17/23 14:29	1
Oxidation Reduction Potential	151.1				millivolts			11/17/23 14:29	1
Oxygen, Dissolved	5.98				mg/L			11/17/23 14:29	1
Specific Conductance	915.25				umhos/cm			11/17/23 14:29	1
Turbidity	0.14				NTU			11/17/23 14:29	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_46**

**Lab Sample ID: 500-242591-35**

Date Collected: 11/20/23 09:13

Matrix: Water

Date Received: 11/21/23 08:06

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0089		0.0050	0.0020	mg/L		12/05/23 09:07	12/06/23 13:59	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/20/23 22:04	1
Arsenic	0.00049	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/20/23 22:04	1
Barium	0.071		0.0025	0.00073	mg/L		12/06/23 09:21	12/20/23 22:04	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:42	1
Boron	0.12	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 12:08	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/20/23 22:04	1
Calcium	79	B	0.20	0.044	mg/L		12/06/23 09:21	12/20/23 22:04	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/20/23 22:04	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/20/23 22:04	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/20/23 22:04	1
Magnesium	31		0.20	0.049	mg/L		12/06/23 09:21	12/20/23 22:04	1
Molybdenum	0.018		0.0050	0.0025	mg/L		12/06/23 09:21	12/20/23 22:04	1
Potassium	4.3		0.50	0.11	mg/L		12/06/23 09:21	12/20/23 22:04	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:42	1
Sodium	50	B	0.20	0.077	mg/L		12/06/23 09:21	12/20/23 22:04	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/20/23 22:04	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	70		5.0	0.58	mg/L			11/27/23 13:04	5
Sulfate (EPA 300.0)	61		5.0	1.0	mg/L			11/27/23 13:04	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	240		5.0	3.7	mg/L			11/30/23 11:12	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/30/23 11:12	1
Total Dissolved Solids (SM 2540C)	490		10	4.3	mg/L			11/21/23 23:01	1
Fluoride (SM 4500 F C)	0.22		0.10	0.056	mg/L			12/01/23 17:27	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	51.58				ft			11/20/23 09:13	1
Field pH	7.27				SU			11/20/23 09:13	1
Field Temperature	18.16				Degrees C			11/20/23 09:13	1
Oxidation Reduction Potential	221.0				millivolts			11/20/23 09:13	1
Oxygen, Dissolved	2.95				mg/L			11/20/23 09:13	1
Specific Conductance	442.66				umhos/cm			11/20/23 09:13	1
Turbidity	0.24				NTU			11/20/23 09:13	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_52**  
**Date Collected: 11/20/23 10:18**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-37**  
**Matrix: Water**

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0085		0.0050	0.0020	mg/L		12/05/23 09:07	12/06/23 14:03	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/20/23 22:08	1
Arsenic	0.00047	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/20/23 22:08	1
Barium	0.097		0.0025	0.00073	mg/L		12/06/23 09:21	12/20/23 22:08	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:46	1
Boron	0.21	B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 12:12	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/20/23 22:08	1
Calcium	94	B	0.20	0.044	mg/L		12/06/23 09:21	12/20/23 22:08	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/20/23 22:08	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/20/23 22:08	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/20/23 22:08	1
Magnesium	31		0.20	0.049	mg/L		12/06/23 09:21	12/20/23 22:08	1
Molybdenum	0.011		0.0050	0.0025	mg/L		12/06/23 09:21	12/20/23 22:08	1
Potassium	5.1		0.50	0.11	mg/L		12/06/23 09:21	12/20/23 22:08	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:46	1
Sodium	64	B	0.20	0.077	mg/L		12/06/23 09:21	12/20/23 22:08	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/20/23 22:08	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 08:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	85		5.0	0.58	mg/L			11/27/23 17:52	5
Sulfate (EPA 300.0)	66		5.0	1.0	mg/L			11/27/23 17:52	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	260		5.0	3.7	mg/L			11/30/23 11:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/30/23 11:23	1
Total Dissolved Solids (SM 2540C)	520		10	4.3	mg/L			11/21/23 23:07	1
Fluoride (SM 4500 F C)	0.23		0.10	0.056	mg/L			12/01/23 17:37	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	53.93				ft			11/20/23 10:18	1
Field pH	7.09				SU			11/20/23 10:18	1
Field Temperature	18.47				Degrees C			11/20/23 10:18	1
Oxidation Reduction Potential	198.1				millivolts			11/20/23 10:18	1
Oxygen, Dissolved	2.30				mg/L			11/20/23 10:18	1
Specific Conductance	1129.6				umhos/cm			11/20/23 10:18	1
Turbidity	1.01				NTU			11/20/23 10:18	1

# Client Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_07**  
**Date Collected: 11/20/23 13:12**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-38**  
**Matrix: Water**

**Method: EPA 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0098		0.0050	0.0020	mg/L		12/05/23 09:07	12/06/23 14:08	1

**Method: SW846 6020B - Metals (ICP/MS) - Total Recoverable**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/20/23 22:11	1
Arsenic	0.00043	J	0.0010	0.00023	mg/L		12/06/23 09:21	12/20/23 22:11	1
Barium	0.13		0.0025	0.00073	mg/L		12/06/23 09:21	12/20/23 22:11	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:50	1
Boron	0.038	J B	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 12:16	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/20/23 22:11	1
Calcium	120	B	0.20	0.044	mg/L		12/06/23 09:21	12/20/23 22:11	1
Chromium	0.0018	J	0.0050	0.0011	mg/L		12/06/23 09:21	12/20/23 22:11	1
Cobalt	0.012		0.0010	0.00040	mg/L		12/06/23 09:21	12/20/23 22:11	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/20/23 22:11	1
Magnesium	42		0.20	0.049	mg/L		12/06/23 09:21	12/20/23 22:11	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/06/23 09:21	12/20/23 22:11	1
Potassium	3.1		0.50	0.11	mg/L		12/06/23 09:21	12/20/23 22:11	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:50	1
Sodium	64	B	0.20	0.077	mg/L		12/06/23 09:21	12/20/23 22:11	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/20/23 22:11	1

**Method: SW846 7470A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 08:03	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	86		5.0	0.58	mg/L			11/27/23 13:19	5
Sulfate (EPA 300.0)	56		5.0	1.0	mg/L			11/27/23 13:19	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	370		5.0	3.7	mg/L			11/30/23 11:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/30/23 11:33	1
Total Dissolved Solids (SM 2540C)	690		10	4.3	mg/L			11/21/23 23:09	1
Fluoride (SM 4500 F C)	0.12		0.10	0.056	mg/L			12/01/23 17:42	1

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	68.55				ft			11/20/23 13:12	1
Field pH	6.96				SU			11/20/23 13:12	1
Field Temperature	11.42				Degrees C			11/20/23 13:12	1
Oxidation Reduction Potential	171.3				millivolts			11/20/23 13:12	1
Oxygen, Dissolved	4.01				mg/L			11/20/23 13:12	1
Specific Conductance	7297.8				umhos/cm			11/20/23 13:12	1
Turbidity	0.64				NTU			11/20/23 13:12	1



# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-17  
SDG: HEN\_845\_803

**Client Sample ID: HEN\_55**  
**Date Collected: 11/13/23 08:46**  
**Date Received: 12/06/23 07:24**

**Lab Sample ID: 500-242591-51**  
**Matrix: Water**

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	51.26				ft			11/13/23 08:46	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-17  
SDG: HEN\_845\_803

**Client Sample ID: HEN\_XSG01**  
**Date Collected: 11/13/23 16:18**  
**Date Received: 12/06/23 07:24**

**Lab Sample ID: 500-242591-55**  
**Matrix: Water**

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	10.28				ft			11/13/23 16:18	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-17  
SDG: HEN\_845\_803

**Client Sample ID: HEN\_YSG\_ILRIVER**

**Lab Sample ID: 500-242591-56**

Date Collected: 11/13/23 00:00

Matrix: Water

Date Received: 12/06/23 07:24

**Method: EPA Field Sampling - Field Sampling**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Groundwater Elevation	441.0				ft			11/13/23 00:00	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Definitions/Glossary

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

## Qualifiers

### Metals

Qualifier	Qualifier Description
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

## Metals

### Prep Batch: 743163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total Recoverable	Water	200.7	
MB 500-743163/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-743163/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

### Analysis Batch: 743512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total Recoverable	Water	200.7 Rev 4.4	743163
MB 500-743163/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	743163
LCS 500-743163/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	743163

### Prep Batch: 743616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-23	HEN_47	Total Recoverable	Water	200.7	
500-242591-24	HEN_12	Total Recoverable	Water	200.7	
500-242591-25	HEN_13	Total Recoverable	Water	200.7	
500-242591-26	HEN_08&D	Total Recoverable	Water	200.7	
500-242591-27	HEN_08	Total Recoverable	Water	200.7	
500-242591-28	HEN_08_FD	Total Recoverable	Water	200.7	
500-242591-30	HEN_17	Total Recoverable	Water	200.7	
MB 500-743616/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-743616/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

### Analysis Batch: 743952

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-23	HEN_47	Total Recoverable	Water	200.7 Rev 4.4	743616
500-242591-24	HEN_12	Total Recoverable	Water	200.7 Rev 4.4	743616
500-242591-25	HEN_13	Total Recoverable	Water	200.7 Rev 4.4	743616
500-242591-26	HEN_08&D	Total Recoverable	Water	200.7 Rev 4.4	743616
500-242591-27	HEN_08	Total Recoverable	Water	200.7 Rev 4.4	743616
500-242591-28	HEN_08_FD	Total Recoverable	Water	200.7 Rev 4.4	743616
500-242591-30	HEN_17	Total Recoverable	Water	200.7 Rev 4.4	743616
MB 500-743616/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	743616
LCS 500-743616/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	743616

### Prep Batch: 744964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	7470A	
500-242591-23	HEN_47	Total/NA	Water	7470A	
500-242591-24	HEN_12	Total/NA	Water	7470A	
500-242591-25	HEN_13	Total/NA	Water	7470A	
500-242591-26	HEN_08&D	Total/NA	Water	7470A	
500-242591-27	HEN_08	Total/NA	Water	7470A	
500-242591-28	HEN_08_FD	Total/NA	Water	7470A	
500-242591-30	HEN_17	Total/NA	Water	7470A	
500-242591-31	HEN_16	Total/NA	Water	7470A	
500-242591-35	HEN_46	Total/NA	Water	7470A	
500-242591-37	HEN_52	Total/NA	Water	7470A	
500-242591-38	HEN_07	Total/NA	Water	7470A	
MB 500-744964/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-744964/13-A	Lab Control Sample	Total/NA	Water	7470A	

# QC Association Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

## Metals

### Prep Batch: 745158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-31	HEN_16	Total Recoverable	Water	200.7	
500-242591-35	HEN_46	Total Recoverable	Water	200.7	
500-242591-37	HEN_52	Total Recoverable	Water	200.7	
500-242591-38	HEN_07	Total Recoverable	Water	200.7	
MB 500-745158/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-745158/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

### Analysis Batch: 745181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	7470A	744964
500-242591-23	HEN_47	Total/NA	Water	7470A	744964
500-242591-24	HEN_12	Total/NA	Water	7470A	744964
500-242591-25	HEN_13	Total/NA	Water	7470A	744964
500-242591-26	HEN_08&D	Total/NA	Water	7470A	744964
500-242591-27	HEN_08	Total/NA	Water	7470A	744964
500-242591-28	HEN_08_FD	Total/NA	Water	7470A	744964
500-242591-30	HEN_17	Total/NA	Water	7470A	744964
500-242591-31	HEN_16	Total/NA	Water	7470A	744964
500-242591-35	HEN_46	Total/NA	Water	7470A	744964
500-242591-37	HEN_52	Total/NA	Water	7470A	744964
500-242591-38	HEN_07	Total/NA	Water	7470A	744964
MB 500-744964/12-A	Method Blank	Total/NA	Water	7470A	744964
LCS 500-744964/13-A	Lab Control Sample	Total/NA	Water	7470A	744964

### Prep Batch: 745370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total Recoverable	Water	3005A	
500-242591-23	HEN_47	Total Recoverable	Water	3005A	
500-242591-24	HEN_12	Total Recoverable	Water	3005A	
500-242591-25	HEN_13	Total Recoverable	Water	3005A	
500-242591-26	HEN_08&D	Total Recoverable	Water	3005A	
500-242591-27	HEN_08	Total Recoverable	Water	3005A	
500-242591-28	HEN_08_FD	Total Recoverable	Water	3005A	
500-242591-30	HEN_17	Total Recoverable	Water	3005A	
500-242591-31	HEN_16	Total Recoverable	Water	3005A	
500-242591-35	HEN_46	Total Recoverable	Water	3005A	
500-242591-37	HEN_52	Total Recoverable	Water	3005A	
500-242591-38	HEN_07	Total Recoverable	Water	3005A	
MB 500-745370/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-745370/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

### Analysis Batch: 745468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-31	HEN_16	Total Recoverable	Water	200.7 Rev 4.4	745158
500-242591-35	HEN_46	Total Recoverable	Water	200.7 Rev 4.4	745158
500-242591-37	HEN_52	Total Recoverable	Water	200.7 Rev 4.4	745158
500-242591-38	HEN_07	Total Recoverable	Water	200.7 Rev 4.4	745158
MB 500-745158/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	745158
LCS 500-745158/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	745158

# QC Association Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNIPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

## Metals

### Analysis Batch: 747720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-30	HEN_17	Total Recoverable	Water	6020B	745370
500-242591-31	HEN_16	Total Recoverable	Water	6020B	745370
500-242591-35	HEN_46	Total Recoverable	Water	6020B	745370
500-242591-37	HEN_52	Total Recoverable	Water	6020B	745370
500-242591-38	HEN_07	Total Recoverable	Water	6020B	745370

### Analysis Batch: 747971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total Recoverable	Water	6020B	745370
500-242591-23	HEN_47	Total Recoverable	Water	6020B	745370
500-242591-24	HEN_12	Total Recoverable	Water	6020B	745370
500-242591-25	HEN_13	Total Recoverable	Water	6020B	745370
500-242591-26	HEN_08&D	Total Recoverable	Water	6020B	745370
500-242591-27	HEN_08	Total Recoverable	Water	6020B	745370
500-242591-28	HEN_08_FD	Total Recoverable	Water	6020B	745370
500-242591-30	HEN_17	Total Recoverable	Water	6020B	745370
500-242591-31	HEN_16	Total Recoverable	Water	6020B	745370
500-242591-35	HEN_46	Total Recoverable	Water	6020B	745370
500-242591-37	HEN_52	Total Recoverable	Water	6020B	745370
500-242591-38	HEN_07	Total Recoverable	Water	6020B	745370
MB 500-745370/1-A	Method Blank	Total Recoverable	Water	6020B	745370
LCS 500-745370/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745370

### Analysis Batch: 748042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total Recoverable	Water	6020B	745370
500-242591-23	HEN_47	Total Recoverable	Water	6020B	745370
500-242591-24	HEN_12	Total Recoverable	Water	6020B	745370
500-242591-25	HEN_13	Total Recoverable	Water	6020B	745370
500-242591-26	HEN_08&D	Total Recoverable	Water	6020B	745370
500-242591-27	HEN_08	Total Recoverable	Water	6020B	745370
500-242591-28	HEN_08_FD	Total Recoverable	Water	6020B	745370
500-242591-30	HEN_17	Total Recoverable	Water	6020B	745370
500-242591-31	HEN_16	Total Recoverable	Water	6020B	745370
500-242591-35	HEN_46	Total Recoverable	Water	6020B	745370
500-242591-37	HEN_52	Total Recoverable	Water	6020B	745370
500-242591-38	HEN_07	Total Recoverable	Water	6020B	745370

## General Chemistry

### Analysis Batch: 742951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	SM 2540C	
500-242591-23	HEN_47	Total/NA	Water	SM 2540C	
500-242591-24	HEN_12	Total/NA	Water	SM 2540C	
500-242591-25	HEN_13	Total/NA	Water	SM 2540C	
500-242591-26	HEN_08&D	Total/NA	Water	SM 2540C	
500-242591-27	HEN_08	Total/NA	Water	SM 2540C	
500-242591-28	HEN_08_FD	Total/NA	Water	SM 2540C	
500-242591-30	HEN_17	Total/NA	Water	SM 2540C	
MB 500-742951/1	Method Blank	Total/NA	Water	SM 2540C	

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# QC Association Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

## General Chemistry (Continued)

### Analysis Batch: 742951 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-742951/2	Lab Control Sample	Total/NA	Water	SM 2540C	

### Analysis Batch: 743193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-31	HEN_16	Total/NA	Water	SM 2540C	
MB 500-743193/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-743193/2	Lab Control Sample	Total/NA	Water	SM 2540C	

### Analysis Batch: 743297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	300.0	
500-242591-23	HEN_47	Total/NA	Water	300.0	
500-242591-24	HEN_12	Total/NA	Water	300.0	
500-242591-25	HEN_13	Total/NA	Water	300.0	
500-242591-26	HEN_08&D	Total/NA	Water	300.0	
500-242591-27	HEN_08	Total/NA	Water	300.0	
500-242591-28	HEN_08_FD	Total/NA	Water	300.0	
500-242591-30	HEN_17	Total/NA	Water	300.0	
500-242591-31	HEN_16	Total/NA	Water	300.0	
MB 500-743297/3	Method Blank	Total/NA	Water	300.0	
LCS 500-743297/4	Lab Control Sample	Total/NA	Water	300.0	

### Analysis Batch: 743427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-35	HEN_46	Total/NA	Water	SM 2540C	
500-242591-37	HEN_52	Total/NA	Water	SM 2540C	
500-242591-38	HEN_07	Total/NA	Water	SM 2540C	
MB 500-743427/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-743427/2	Lab Control Sample	Total/NA	Water	SM 2540C	

### Analysis Batch: 743513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	SM 2320B	
500-242591-23	HEN_47	Total/NA	Water	SM 2320B	
500-242591-24	HEN_12	Total/NA	Water	SM 2320B	
500-242591-25	HEN_13	Total/NA	Water	SM 2320B	
500-242591-26	HEN_08&D	Total/NA	Water	SM 2320B	
500-242591-27	HEN_08	Total/NA	Water	SM 2320B	
500-242591-28	HEN_08_FD	Total/NA	Water	SM 2320B	
500-242591-30	HEN_17	Total/NA	Water	SM 2320B	
500-242591-31	HEN_16	Total/NA	Water	SM 2320B	
MB 500-743513/28	Method Blank	Total/NA	Water	SM 2320B	
MB 500-743513/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-743513/29	Lab Control Sample	Total/NA	Water	SM 2320B	
LCS 500-743513/4	Lab Control Sample	Total/NA	Water	SM 2320B	

### Analysis Batch: 743830

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-35	HEN_46	Total/NA	Water	300.0	
500-242591-37	HEN_52	Total/NA	Water	300.0	
500-242591-38	HEN_07	Total/NA	Water	300.0	



# QC Association Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

## General Chemistry (Continued)

### Analysis Batch: 743830 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-743830/3	Method Blank	Total/NA	Water	300.0	
LCS 500-743830/5	Lab Control Sample	Total/NA	Water	300.0	

### Analysis Batch: 744626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-35	HEN_46	Total/NA	Water	SM 2320B	
500-242591-37	HEN_52	Total/NA	Water	SM 2320B	
500-242591-38	HEN_07	Total/NA	Water	SM 2320B	
MB 500-744626/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-744626/4	Lab Control Sample	Total/NA	Water	SM 2320B	

### Analysis Batch: 744922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	SM 4500 F C	
500-242591-23	HEN_47	Total/NA	Water	SM 4500 F C	
500-242591-24	HEN_12	Total/NA	Water	SM 4500 F C	
500-242591-26	HEN_08&D	Total/NA	Water	SM 4500 F C	
500-242591-27	HEN_08	Total/NA	Water	SM 4500 F C	
500-242591-30	HEN_17	Total/NA	Water	SM 4500 F C	
500-242591-31	HEN_16	Total/NA	Water	SM 4500 F C	
500-242591-35	HEN_46	Total/NA	Water	SM 4500 F C	
500-242591-37	HEN_52	Total/NA	Water	SM 4500 F C	
500-242591-38	HEN_07	Total/NA	Water	SM 4500 F C	
MB 500-744922/31	Method Blank	Total/NA	Water	SM 4500 F C	
MB 500-744922/59	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-744922/32	Lab Control Sample	Total/NA	Water	SM 4500 F C	
LCS 500-744922/60	Lab Control Sample	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 745605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-25	HEN_13	Total/NA	Water	SM 4500 F C	
500-242591-28	HEN_08_FD	Total/NA	Water	SM 4500 F C	
MB 500-745605/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-745605/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

## Field Service / Mobile Lab

### Analysis Batch: 745357

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	Field Sampling	
500-242591-23	HEN_47	Total/NA	Water	Field Sampling	
500-242591-24	HEN_12	Total/NA	Water	Field Sampling	
500-242591-25	HEN_13	Total/NA	Water	Field Sampling	
500-242591-26	HEN_08&D	Total/NA	Water	Field Sampling	
500-242591-27	HEN_08	Total/NA	Water	Field Sampling	
500-242591-28	HEN_08_FD	Total/NA	Water	Field Sampling	
500-242591-30	HEN_17	Total/NA	Water	Field Sampling	
500-242591-31	HEN_16	Total/NA	Water	Field Sampling	
500-242591-35	HEN_46	Total/NA	Water	Field Sampling	
500-242591-37	HEN_52	Total/NA	Water	Field Sampling	
500-242591-38	HEN_07	Total/NA	Water	Field Sampling	

# QC Association Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-17  
SDG: HEN\_845\_803

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

## Field Service / Mobile Lab (Continued)

### Analysis Batch: 745357 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-51	HEN_55	Total/NA	Water	Field Sampling	
500-242591-55	HEN_XSG01	Total/NA	Water	Field Sampling	
500-242591-56	HEN_YSG_ILRIVER	Total/NA	Water	Field Sampling	

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# QC Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 HEN-23Q4  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 500-743163/1-A  
 Matrix: Water  
 Analysis Batch: 743512

Client Sample ID: Method Blank  
 Prep Type: Total Recoverable  
 Prep Batch: 743163

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		11/20/23 17:49	11/21/23 16:11	1

Lab Sample ID: LCS 500-743163/2-A  
 Matrix: Water  
 Analysis Batch: 743512

Client Sample ID: Lab Control Sample  
 Prep Type: Total Recoverable  
 Prep Batch: 743163

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.250	0.255		mg/L		102	85 - 115

Lab Sample ID: MB 500-743616/1-A  
 Matrix: Water  
 Analysis Batch: 743952

Client Sample ID: Method Blank  
 Prep Type: Total Recoverable  
 Prep Batch: 743616

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		11/22/23 17:00	11/27/23 12:52	1

Lab Sample ID: MB 500-745158/1-A  
 Matrix: Water  
 Analysis Batch: 745468

Client Sample ID: Method Blank  
 Prep Type: Total Recoverable  
 Prep Batch: 745158

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		12/05/23 09:07	12/06/23 12:57	1

Lab Sample ID: LCS 500-745158/2-A  
 Matrix: Water  
 Analysis Batch: 745468

Client Sample ID: Lab Control Sample  
 Prep Type: Total Recoverable  
 Prep Batch: 745158

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.250	0.273		mg/L		109	85 - 115

## Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-745370/1-A  
 Matrix: Water  
 Analysis Batch: 747971

Client Sample ID: Method Blank  
 Prep Type: Total Recoverable  
 Prep Batch: 745370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/06/23 09:21	12/21/23 14:58	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		12/06/23 09:21	12/21/23 14:58	1
Barium	<0.0025		0.0025	0.00073	mg/L		12/06/23 09:21	12/21/23 14:58	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 14:58	1
Boron	0.0298	J	0.050	0.013	mg/L		12/06/23 09:21	12/21/23 14:58	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/21/23 14:58	1
Calcium	<0.20		0.20	0.044	mg/L		12/06/23 09:21	12/21/23 14:58	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/21/23 14:58	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/21/23 14:58	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/21/23 14:58	1
Magnesium	<0.20		0.20	0.049	mg/L		12/06/23 09:21	12/21/23 14:58	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/06/23 09:21	12/21/23 14:58	1
Potassium	<0.50		0.50	0.11	mg/L		12/06/23 09:21	12/21/23 14:58	1

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# QC Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 HEN-23Q4  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 500-745370/1-A  
 Matrix: Water  
 Analysis Batch: 747971

Client Sample ID: Method Blank  
 Prep Type: Total Recoverable  
 Prep Batch: 745370

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	<0.0025		0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 14:58	1
Sodium	<0.20		0.20	0.077	mg/L		12/06/23 09:21	12/21/23 14:58	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/21/23 14:58	1

Lab Sample ID: LCS 500-745370/2-A  
 Matrix: Water  
 Analysis Batch: 747971

Client Sample ID: Lab Control Sample  
 Prep Type: Total Recoverable  
 Prep Batch: 745370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.489		mg/L		98	80 - 120
Arsenic	0.100	0.0956		mg/L		96	80 - 120
Barium	0.500	0.486		mg/L		97	80 - 120
Beryllium	0.0500	0.0462	^1+	mg/L		92	80 - 120
Boron	1.00	1.02		mg/L		102	80 - 120
Cadmium	0.0500	0.0488		mg/L		98	80 - 120
Calcium	10.0	8.32		mg/L		83	80 - 120
Chromium	0.200	0.200		mg/L		100	80 - 120
Cobalt	0.500	0.500		mg/L		100	80 - 120
Lead	0.100	0.100		mg/L		100	80 - 120
Magnesium	10.0	9.56		mg/L		96	80 - 120
Molybdenum	1.00	0.906		mg/L		91	80 - 120
Potassium	10.0	9.66		mg/L		97	80 - 120
Selenium	0.100	0.0948		mg/L		95	80 - 120
Sodium	10.0	9.58		mg/L		96	80 - 120
Thallium	0.100	0.100		mg/L		100	80 - 120

## Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-744964/12-A  
 Matrix: Water  
 Analysis Batch: 745181

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 744964

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/04/23 09:40	12/05/23 07:21	1

Lab Sample ID: LCS 500-744964/13-A  
 Matrix: Water  
 Analysis Batch: 745181

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 744964

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00203		mg/L		101	80 - 120

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-743297/3  
 Matrix: Water  
 Analysis Batch: 743297

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			11/21/23 13:25	1

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# QC Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 HEN-23Q4  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 500-743297/3  
 Matrix: Water  
 Analysis Batch: 743297

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.0		1.0	0.21	mg/L			11/21/23 13:25	1

Lab Sample ID: LCS 500-743297/4  
 Matrix: Water  
 Analysis Batch: 743297

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.4		mg/L		97	90 - 110
Sulfate	20.0	19.8		mg/L		99	90 - 110

Lab Sample ID: MB 500-743830/3  
 Matrix: Water  
 Analysis Batch: 743830

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			11/27/23 11:33	1
Sulfate	<1.0		1.0	0.21	mg/L			11/27/23 11:33	1

Lab Sample ID: LCS 500-743830/5  
 Matrix: Water  
 Analysis Batch: 743830

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	19.8		mg/L		99	90 - 110
Sulfate	20.0	20.3		mg/L		102	90 - 110

## Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-743513/28  
 Matrix: Water  
 Analysis Batch: 743513

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/21/23 15:27	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/21/23 15:27	1

Lab Sample ID: MB 500-743513/3  
 Matrix: Water  
 Analysis Batch: 743513

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/21/23 11:50	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/21/23 11:50	1

Lab Sample ID: LCS 500-743513/29  
 Matrix: Water  
 Analysis Batch: 743513

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	103		mg/L		103	90 - 110

# QC Sample Results

ATTACHMENT B.

845 QUARTERLY REPORT - QUARTER 4, 2023

HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-17

SDG: HEN\_845\_803

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

## Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: LCS 500-743513/4  
Matrix: Water  
Analysis Batch: 743513

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	101		mg/L		101	90 - 110

Lab Sample ID: MB 500-744626/3  
Matrix: Water  
Analysis Batch: 744626

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bicarbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/30/23 10:09	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/30/23 10:09	1

Lab Sample ID: LCS 500-744626/4  
Matrix: Water  
Analysis Batch: 744626

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Alkalinity	100	94.6		mg/L		95	90 - 110

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

Lab Sample ID: MB 500-742951/1  
Matrix: Water  
Analysis Batch: 742951

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	4.3	mg/L			11/19/23 22:37	1

Lab Sample ID: LCS 500-742951/2  
Matrix: Water  
Analysis Batch: 742951

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	254		mg/L		102	80 - 120

Lab Sample ID: MB 500-743193/1  
Matrix: Water  
Analysis Batch: 743193

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	4.3	mg/L			11/20/23 22:35	1

Lab Sample ID: LCS 500-743193/2  
Matrix: Water  
Analysis Batch: 743193

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	266		mg/L		106	80 - 120

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# QC Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

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

Lab Sample ID: MB 500-743427/1  
 Matrix: Water  
 Analysis Batch: 743427

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	4.3	mg/L			11/21/23 22:36	1

Lab Sample ID: LCS 500-743427/2  
 Matrix: Water  
 Analysis Batch: 743427

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	250	260		mg/L		104	80 - 120

## Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-744922/31  
 Matrix: Water  
 Analysis Batch: 744922

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10	0.056	mg/L			12/01/23 14:18	1

Lab Sample ID: MB 500-744922/59  
 Matrix: Water  
 Analysis Batch: 744922

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10	0.056	mg/L			12/01/23 16:38	1

Lab Sample ID: LCS 500-744922/32  
 Matrix: Water  
 Analysis Batch: 744922

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.83		mg/L		98	90 - 119

Lab Sample ID: LCS 500-744922/60  
 Matrix: Water  
 Analysis Batch: 744922

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.94		mg/L		99	90 - 119

Lab Sample ID: MB 500-745605/3  
 Matrix: Water  
 Analysis Batch: 745605

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10	0.056	mg/L			12/06/23 14:28	1

# QC Sample Results

ATTACHMENT B.

845 QUARTERLY REPORT - QUARTER 4, 2023

HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-17

SDG: HEN\_845\_803

Client: Vistra Energy Corp

Project/Site: HEN-23Q4

## Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-745605/4

Matrix: Water

Analysis Batch: 745605

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.74		mg/L		97	90 - 119

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# Lab Chronicle

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 HEN-23Q4  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_54**  
**Date Collected: 11/17/23 09:02**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-22**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743163	MC	EET CHI	11/20/23 17:49 - 11/20/23 22:49 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 18:07
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 15:33
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:19
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:25
Total/NA	Analysis	300.0		5	743297	W1T	EET CHI	11/21/23 15:11
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 14:26
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:18
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 16:03
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 09:02

**Client Sample ID: HEN\_47**  
**Date Collected: 11/17/23 09:33**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-23**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743616	MC	EET CHI	11/22/23 17:00 - 11/22/23 23:00 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743952	RN	EET CHI	11/27/23 13:38
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 15:36
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:23
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:27
Total/NA	Analysis	300.0		5	743297	W1T	EET CHI	11/21/23 15:27
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 15:00
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:20
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 16:08
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 09:33

**Client Sample ID: HEN\_12**  
**Date Collected: 11/17/23 10:19**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-24**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743616	MC	EET CHI	11/22/23 17:00 - 11/22/23 23:00 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743952	RN	EET CHI	11/27/23 13:42
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 15:40
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:27

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# Lab Chronicle

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_12**  
**Date Collected: 11/17/23 10:19**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-24**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:29
Total/NA	Analysis	300.0		5	743297	W1T	EET CHI	11/21/23 15:42
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 15:09
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:23
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 16:12
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 10:19

**Client Sample ID: HEN\_13**  
**Date Collected: 11/17/23 10:21**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-25**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743616	MC	EET CHI	11/22/23 17:00 - 11/22/23 23:00 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743952	RN	EET CHI	11/27/23 13:46
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 15:44
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:31
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:32
Total/NA	Analysis	300.0		5	743297	W1T	EET CHI	11/21/23 15:57
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 15:18
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:26
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 16:07
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 10:21

**Client Sample ID: HEN\_08&D**  
**Date Collected: 11/17/23 12:31**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-26**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743616	MC	EET CHI	11/22/23 17:00 - 11/22/23 23:00 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743952	RN	EET CHI	11/27/23 13:50
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 15:48
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:34
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:34
Total/NA	Analysis	300.0		10	743297	W1T	EET CHI	11/21/23 16:12
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 15:40
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:28

# Lab Chronicle

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

## Client Sample ID: HEN\_08&D

## Lab Sample ID: 500-242591-26

Date Collected: 11/17/23 12:31

Matrix: Water

Date Received: 11/17/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 16:22
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 12:31

## Client Sample ID: HEN\_08

## Lab Sample ID: 500-242591-27

Date Collected: 11/17/23 12:32

Matrix: Water

Date Received: 11/17/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743616	MC	EET CHI	11/22/23 17:00 - 11/22/23 23:00 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743952	RN	EET CHI	11/27/23 13:55
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:12
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:46
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:36
Total/NA	Analysis	300.0		10	743297	W1T	EET CHI	11/21/23 16:58
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 15:51
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:31
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 16:27
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 12:32

## Client Sample ID: HEN\_08\_FD

## Lab Sample ID: 500-242591-28

Date Collected: 11/17/23 12:37

Matrix: Water

Date Received: 11/17/23 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743616	MC	EET CHI	11/22/23 17:00 - 11/22/23 23:00 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743952	RN	EET CHI	11/27/23 13:59
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:24
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:49
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:38
Total/NA	Analysis	300.0		10	743297	W1T	EET CHI	11/21/23 17:13
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 16:01
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:33
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 16:34
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 12:37

# Lab Chronicle

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_17**  
**Date Collected: 11/17/23 14:17**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-30**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			743616	MC	EET CHI	11/22/23 17:00 - 11/22/23 23:00 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	743952	RN	EET CHI	11/27/23 14:03
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 21:50
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:27
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:53
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:44
Total/NA	Analysis	300.0		5	743297	W1T	EET CHI	11/21/23 17:28
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 16:11
Total/NA	Analysis	SM 2540C		1	742951	CLB	EET CHI	11/19/23 23:36
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 18:13
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 14:17

**Client Sample ID: HEN\_16**  
**Date Collected: 11/17/23 14:29**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-31**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745158	BDE	EET CHI	12/05/23 09:07 - 12/05/23 09:37 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	745468	RN	EET CHI	12/06/23 13:46
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 21:54
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:31
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 11:57
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:46
Total/NA	Analysis	300.0		5	743297	W1T	EET CHI	11/21/23 17:43
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 16:20
Total/NA	Analysis	SM 2540C		1	743193	CLB	EET CHI	11/20/23 22:58
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 17:12
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/17/23 14:29

**Client Sample ID: HEN\_46**  
**Date Collected: 11/20/23 09:13**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-35**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745158	BDE	EET CHI	12/05/23 09:07 - 12/05/23 09:37 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	745468	RN	EET CHI	12/06/23 13:59

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# Lab Chronicle

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 HEN-23Q4  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_46**  
**Date Collected: 11/20/23 09:13**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-35**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 22:04
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:42
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 12:08
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 07:59
Total/NA	Analysis	300.0		5	743830	NMB	EET CHI	11/27/23 13:04
Total/NA	Analysis	SM 2320B		1	744626	SO	EET CHI	11/30/23 11:12
Total/NA	Analysis	SM 2540C		1	743427	CLB	EET CHI	11/21/23 23:01
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 17:27
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/20/23 09:13

**Client Sample ID: HEN\_52**  
**Date Collected: 11/20/23 10:18**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-37**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745158	BDE	EET CHI	12/05/23 09:07 - 12/05/23 09:37 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	745468	RN	EET CHI	12/06/23 14:03
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 22:08
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:46
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 12:12
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 08:01
Total/NA	Analysis	300.0		5	743830	NMB	EET CHI	11/27/23 17:52
Total/NA	Analysis	SM 2320B		1	744626	SO	EET CHI	11/30/23 11:23
Total/NA	Analysis	SM 2540C		1	743427	CLB	EET CHI	11/21/23 23:07
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 17:37
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/20/23 10:18

**Client Sample ID: HEN\_07**  
**Date Collected: 11/20/23 13:12**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-38**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			745158	BDE	EET CHI	12/05/23 09:07 - 12/05/23 09:37 <sup>1</sup>
Total Recoverable	Analysis	200.7 Rev 4.4		1	745468	RN	EET CHI	12/06/23 14:08
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 22:11

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# Lab Chronicle

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-17  
 SDG: HEN\_845\_803

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_07**  
**Date Collected: 11/20/23 13:12**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-38**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:50
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 <sup>1</sup>
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 12:16
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 <sup>1</sup>
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 08:03
Total/NA	Analysis	300.0		5	743830	NMB	EET CHI	11/27/23 13:19
Total/NA	Analysis	SM 2320B		1	744626	SO	EET CHI	11/30/23 11:33
Total/NA	Analysis	SM 2540C		1	743427	CLB	EET CHI	11/21/23 23:09
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 17:42
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/20/23 13:12

**Client Sample ID: HEN\_55**  
**Date Collected: 11/13/23 08:46**  
**Date Received: 12/06/23 07:24**

**Lab Sample ID: 500-242591-51**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/13/23 08:46

**Client Sample ID: HEN\_XSG01**  
**Date Collected: 11/13/23 16:18**  
**Date Received: 12/06/23 07:24**

**Lab Sample ID: 500-242591-55**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/13/23 16:18

**Client Sample ID: HEN\_YSG\_ILRIVER**  
**Date Collected: 11/13/23 00:00**  
**Date Received: 12/06/23 07:24**

**Lab Sample ID: 500-242591-56**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/13/23 00:00

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**  
 EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

ATTACHMENT B.

45 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-17  
SDG: HEN\_845\_803

## Laboratory: Eurofins Chicago

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	IL00035	04-29-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
200.7 Rev 4.4	200.7	Water	Lithium
Field Sampling		Water	Depth to Water (ft from MP)
Field Sampling		Water	Field pH
Field Sampling		Water	Field Temperature
Field Sampling		Water	Groundwater Elevation
Field Sampling		Water	Oxidation Reduction Potential
Field Sampling		Water	Oxygen, Dissolved
Field Sampling		Water	Specific Conductance
Field Sampling		Water	Turbidity
SM 2320B		Water	Bicarbonate Alkalinity as CaCO3
SM 2320B		Water	Carbonate Alkalinity as CaCO3















500-242591

### CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be completed accurately

<b>Section A</b> Required Client Information:		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information:	
Company: <b>Vistra Corp</b>		Report To: <b>Brian Voelker</b>		Attention: <b>Jason Stuckey</b>	
Address: <b>133 S 4th, Suite 206 Springfield, IL 62701</b>		Copy To: <b>Jason Stuckey</b>		Company Name: <b>Vistra Corp</b>	
Email To: <b>Brian.Voelker@VistraCorp.com</b>		Purchase Order No.:		Address: <b>see Section A</b>	
Phone: <b>(217) 753-8911</b> Fax:		Project Name: <b>23Q4 GW SAMPLING</b>		Quote Reference:	
Requested Due Date/TAT: <b>10 day</b>		Project Number: <b>50022357</b>		Project Manager: <b>NIKKI PAGANO</b>	
				Profile #:	
<b>REGULATORY AGENCY</b>					
NPDES		GROUND WATER		DRINKING WATER	
UST		RCRA		OTHER	
Site Location				STATE: <b>IL</b>	

ITEM #	Section D Required Client Information  SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↓	Residual Chlorine (Y/N)	Project No./ Lab I.D.												
		MATRIX	CODE			DATE	TIME			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol				Other	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_C	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West
1	HEN_08			G	G	11-17-23	12:32		13	5	3	4	1					X	X	X	X	X	X	X	X	X	X	X		SHORT HOLDS -NO2	
2	HEN_08_FD			G	G	11-17-23	12:37		13	5	3	4	1					X	X	X	X	X	X	X	X	X	X	X		SHORT HOLDS -NO3	
3	TRIP BLANK 02			G	G	11-17-23																								BTEX	
4																															
5																															
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-17-23	1800	[Signature]	11/17/23	1800	

DROP OFF AT LAB

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER.	KRISTEN THIESFELD				
SIGNATURE of SAMPLER	[Signature]	DATE Signed (MM/DD/YY):	11-17-23		



**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be completed accurately

*CO# HEN-026*  
*500-242591*

<b>Section A</b> Required Client Information		<b>Section B</b> Required Project Information:		<b>Section C</b> Invoice Information.		Page: 1 of 1	
Company: <u>Vistra Corp</u>		Report To: <u>Brian Voelker</u>		Attention: <u>Jason Stuckey</u>		<b>REGULATORY AGENCY</b> NPDES    GROUND WATER    DRINKING WATER UST    RCRA    OTHER	
Address: <u>133 S 4th, Suite 206</u> <u>Springfield, IL 62701</u>		Copy To: <u>Jason Stuckey</u>		Company Name: <u>Vistra Corp</u>			
Email To: <u>Brian.Voelker@VistraCorp.com</u>		Purchase Order No.		Address: <u>see Section A</u>		Site Location STATE: <u>IL</u>	
Phone: <u>(217) 753-8911</u> Fax:		Project Name: <u>23 Q4 GW SAMPLING</u>		Quote Reference: Project Manager: <u>NIKKI PAGANO</u>			
Requested Due Date/TAT: <u>10 day</u>		Project Number: <u>50022357</u>		Profile #:			

ITEM #	Section D Required Client Information  SAMPLE ID (A-Z, 0-9 / ) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WATER WT WASTE WATER WW PRODUCT P SOIL/SOLID SL OIL OL WIPE WP AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Requested Analysis Filtered (Y/N)										Residual Chlorine (Y/N)	Project No./ Lab I.D.											
					DATE	TIME			Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol	Other	Analysis Test ↓	Y	N	Y	N	Y	N	Y	N			Y	N	Y	N							
1	HEN_16		WG		11-17-23	14:29		3										X			X		X		X													
2																																						
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ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
HEN-23Q4 Rev 0		<i>[Signature]</i>		11-17-23	18:00	<i>[Signature]</i>		11/17/23	18:00				
SAMPLER NAME AND SIGNATURE										Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER. KRISTEN THEESFELD													
SIGNATURE of SAMPLER. <i>[Signature]</i> DATE Signed (MM/DD/YYYY): 11-17-23													

DROP OFF AT LAB

QC TJD









## Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-17

SDG Number: HEN\_845\_803

**Login Number: 242591**

**List Number: 1**

**Creator: Scott, Sherri L**

**List Source: Eurofins Chicago**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.7,4.9,3.2,4.2,3.0,1.8,5.6,4.6,2.4,4.6,4.4,5.0,,2.3,4.9,5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
HEN-845-808

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**PROJECT INFORMATION**

Site: HENNEPIN Client: VISTRA  
 Project Number: \_\_\_\_\_ Task #: \_\_\_\_\_ Start Date: 11-17-23 Time: 09:59  
 Field Personnel: KVT Finish Date: 11-14-23 Time: 11:10

WELL INFORMATION	EVENT TYPE	PURGE INFORMATION
Well ID: <u>13</u>	<input type="checkbox"/> Well Development	Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump
Casing ID: _____ Inches	<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling	Bailer Type: <u>n/a</u>
Screen Interval: _____	<input type="checkbox"/> Well Volume Approach Sampling	Pump Type and Serial #: <u>QED BLADDER</u>
Borehole Diameter: _____ Inches	<input type="checkbox"/> Other (Specify below)	Tube/Pump Intake Depth: _____
Filter Pack Interval: _____		Stabilized Pumping Rate: _____

DEPTH MEASUREMENTS				VOLUME CALCULATION AND PRODUCTION INFORMATION					
	INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole				
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)	Volume Per Foot: _____ feet				
LNAPL					Standing Water Column: _____ feet				
Groundwater	<u>51.05</u>	<u>10:00</u>	<u>51.07</u>	<u>10:21</u>	1 Well Volume: _____ Gallons	3 Well Volumes: _____ Gallons			
DNAPL					5 Well Volumes: _____ Gallons	10 Well Volumes: _____ Gallons			
Casing Base					Total Volumes Produced: _____ Gallons				
Water Level Serial #: _____				Water Quality Probe Type and Serial #: _____				Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

**WATER QUALITY INDICATOR PARAMETERS**

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
Initial	10:00		51.06	0.01	16.94	7.33	922.2	5.20	0.21	175.7	CLEAR
purge	10:09		51.06	0.01	17.91	7.42	915.79	2.22	0.00	173.0	↓
	10:12		51.07	0.02	17.89	7.44	918.41	1.40	0.00	172.3	↓
	10:15		51.07	0.02	17.75	7.45	920.76	1.38	0.76	171.0	↓
	10:18		51.07	0.02	17.75	7.46	921.75	1.41	0.26	169.7	↓
SAMPLE	10:21	22 gal	51.07	0.02	17.76	7.46	922.27	1.42	0.26	168.3	↓

FLOW RATE = 375 mL/min  
 USED LND TO LAST TURB.

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION													
Site: <u>HENNEPIN POWER PLANT</u>						Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>11-14-23</u>				Time: <u>0942</u>	
Field Personnel: <u>KLI, TJD</u>						Finish Date: <u>11-14-23</u>						Time: _____	
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION							
Well ID: <u>50</u>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump							
Casing ID: _____ Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: <u>n/a</u>							
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>QED BLADDER</u>							
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: _____							
Filter Pack Interval: _____						Stabilized Pumping Rate: _____							
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION								
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole							
		Depth	Time	Depth	Time	Volume Per Foot: _____							
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet							
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons					
Groundwater		<u>18.26</u>	<u>0842</u>	<u>18.27</u>	<u>0947</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons					
DNAPL						Total Volumes Produced: _____ Gallons							
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____								
WATER QUALITY INDICATOR PARAMETERS													
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity		
initial	<u>0903</u>		<u>18.26</u>	<u>0.00</u>	<u>11.77</u>	<u>7.099</u>	<u>2.758</u>	<u>10.912</u>	<u>44.9</u>	<u>257.3</u>	<u>Milky</u>		
purge	<u>0907</u>		↓	↓	<u>14.569</u>	<u>7.3138</u>	<u>960.83</u>	<u>1.513</u>	<u>29.2</u>	<u>254.08</u>	<u>clear</u>		
	<u>0911</u>		<u>18.25</u>	<u>-0.01</u>	<u>12.86</u>	<u>7.436</u>	<u>927.49</u>	<u>1.524</u>	<u>21.7</u>	<u>255.89</u>	<u>clear</u>		
	<u>0915</u>		↓	↓	<u>12.48</u>	<u>7.487</u>	<u>214.412</u>	<u>1.476</u>	<u>22.9</u>	<u>254.12</u>	<u>clear</u>		
	<u>0919</u>		<u>18.27</u>	<u>0.01</u>	<u>15.53</u>	<u>7.485</u>	<u>1014.09</u>	<u>0.758</u>	<u>13.7</u>	<u>244.15</u>	<u>clear</u>		
	<u>0923</u>		<u>18.27</u>	<u>0.01</u>	<u>15.5369</u>	<u>7.4851</u>	<u>142.886</u>	<u>0.201</u>	<u>9.72</u>	<u>235.16</u>	<u>clear</u>		
	<u>0927</u>		↓	↓	<u>15.611</u>	<u>7.53</u>	<u>183.95</u>	<u>0.201</u>	<u>7.52</u>	<u>228.39</u>	<u>clear</u>		
	<u>0931</u>		<u>18.27</u>	<u>0.01</u>	<u>15.613</u>	<u>7.53</u>	<u>80.07</u>	<u>0.246</u>	<u>5.40</u>	<u>222.48</u>	<u>clear</u>		
flow - 350 mL/min													

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**WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM**

**PROJECT INFORMATION**  
 Site: HENNEPIN POWER PLANT  
 Project Number: \_\_\_\_\_ Client: VISTRA  
 Field Personnel: KLT, TJD Task #: \_\_\_\_\_ Start Date: 11-14-23  
 Finish Date: 11-14-23 Time: 0842

**WELL INFORMATION**  
 Well ID: 50  
 Casing ID: \_\_\_\_\_ inches

**EVENT TYPE**  
 Well Development  
 Well Volume Approach Sampling  
 Low-Flow / Low Stress Sampling  
 Other (Specify): \_\_\_\_\_

**WATER QUALITY INDICATOR PARAMETERS (continued)**

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
PURGE	0935		18.27	0.01	15.659	7.539	848.05	0.2108	3.43	218.15	Clear
↓	0939		18.27	0.01	15.716	7.54	1222.149	0.2379	2.14	214.57	Clear
↓	0943		18.27	0.01	15.721	7.54	917.148	0.2438	1.60	210.44	Clear
SAMPLE	0947	27 GAL	18.27	0.01	15.746	7.54	135.73	0.283	1.25	206.54	Clear
<i>[Handwritten signature]</i>											
<u>11-14-23</u>											

**NOTES (continued)**

**ABBREVIATIONS**  
 Cond - Actual Conductivity  
 FT BTOC - Feet Below Top of Casing  
 na - Not Applicable  
 nm - Not Measured  
 ORP - Oxidation-Reduction Potential  
 SEC - Specific Electrical Conductance  
 SU - Standard Units  
 Temp - Temperature  
 °C - Degrees Celsius

2 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HEN P.P.</u>				Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>8/14/23</u>		Time: <u>1056</u>	
Field Personnel: <u>KLT, TID</u>				Finish Date: <u>8/14/23</u>				Time: _____			
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION					
Well ID: <u>34</u>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: _____ Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: <u>n/a</u>					
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>QED BLADDER</u>					
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____						Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet					
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons			
Groundwater		<u>8.46</u>	<u>1056</u>	<u>9.75</u>	<u>1126</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons			
DNAPL						Total Volumes Produced: _____ Gallons					
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
Initial	<u>1109</u>		<u>9.58</u>	<u>1.12</u>	<u>13.84</u>	<u>7.40</u>	<u>1,395.7</u>	<u>4.96</u>	<u>9.05 (H)</u>	<u>-91.6</u>	<u>Milky</u>
purge	<u>1112</u>		<u>9.07</u>	<u>1.21</u>	<u>12.6670</u>	<u>7.516</u>	<u>1,312.6</u>	<u>0.0521</u>	<u>11.7 (H)</u>	<u>-90.5</u>	<u>Clear</u>
	<u>1114</u>		<u>9.69</u>	<u>1.22</u>	<u>12.66</u>	<u>7.15</u>	<u>1,312.6</u>	<u>0.05</u>	<u>10.07 (H)</u>	<u>-98.7</u>	<u>Clear</u>
	<u>1120</u>		<u>9.75</u>	<u>1.28</u>	<u>12.63</u>	<u>7.16</u>	<u>1,323.4</u>	<u>0.02</u>	<u>9.12 (H)</u>	<u>-102.8</u>	<u>Clear</u>
	<u>1123</u>		<u>9.75</u>	<u>1.28</u>	<u>12.63</u>	<u>7.17</u>	<u>1,334.3</u>	<u>0.02</u>	<u>9.56 (H)</u>	<u>-94.7 (H)</u>	<u>Clear</u>
SAMPLE	<u>1126</u>	<u>22</u>	<u>9.69</u>	<u>1.22</u>	<u>12.57</u>	<u>7.18</u>	<u>1,346.0</u>	<u>0.01</u>	<u>8.23 (H)</u>	<u>-108.6</u>	<u>Clear</u>
			<u>9.75</u>	<u>1.28</u>	<u>12.57</u>	<u>7.18</u>	<u>1,348.9</u>	<u>0.00</u>	<u>6.69</u>	<u>-110.6</u>	<u>Clear</u>
Purge Rate: <u>350 mL/min</u> Hatch (H)											

*[Signature]*  
11-14-23

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Hennepin P.P.</u>				Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <u>11/14/23</u>			Time: <u>1200</u>		
Field Personnel: <u>KLT, TJD</u>				Finish Date: <u>11/14/23</u>				Time: <u>1300</u>			
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEN 32</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump			
Casing ID: <u>AS</u> Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>			
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>QED BLADDER</u>			
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____			
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
	Depth	Time	Depth	Time	Volume Per Foot: _____						
	FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet						
LNAPL					1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons				
Groundwater	<u>4.82</u>	<u>1200</u>	<u>4.87</u>	<u>1244</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons				
DNAPL					Total Volumes Produced: _____ Gallons						
Casing Base					Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>1208</u>		<u>4.82</u>	<u>0.00</u>	<u>15.25</u>	<u>7.35</u>	<u>1037.4</u>	<u>8.17</u>	<u>50.4</u>	<u>-90</u>	<u>Clear Milky</u>
purge	<u>1211</u>		<u>4.91</u>	<u>0.09</u>	<u>14.07</u>	<u>7.17</u>	<u>1069.9</u>	<u>0.34</u>	<u>30</u>	<u>14.7</u>	<u>Milky</u>
	<u>1214</u>		<u>4.42</u>	<u>0.10</u>	<u>14.08</u>	<u>7.18</u>	<u>1070</u>	<u>0.21</u>	<u>24.2</u>	<u>14.0</u>	<u>Milky</u>
	<u>1217</u>		<u>4.93</u>	<u>0.11</u>	<u>14.10</u>	<u>7.20</u>	<u>1070.9</u>	<u>0.17</u>	<u>20.3</u>	<u>22.3</u>	<u>Clear</u>
	<u>1220</u>		<u>4.92</u>	<u>0.10</u>	<u>14.13</u>	<u>7.21</u>	<u>1047.0</u>	<u>0.15</u>	<u>17.2</u>	<u>29.2</u>	<u>Clear</u>
	<u>1223</u>		<u>4.89</u>	<u>0.07</u>	<u>14.12</u>	<u>7.22</u>	<u>1043.3</u>	<u>0.15</u>	<u>15.4</u>	<u>28.3</u>	<u>Clear</u>
	<u>1226</u>		<u>4.87</u>	<u>0.05</u>	<u>14.10</u>	<u>7.22</u>	<u>930.14</u>	<u>0.18</u>	<u>12.6</u>	<u>31.5</u>	<u>Clear</u>
	<u>1229</u>		<u>4.86</u>	<u>0.04</u>	<u>14.10</u>	<u>7.22</u>	<u>931.16</u>	<u>0.15</u>	<u>11.1</u>	<u>34.5</u>	<u>Clear</u>
Purge Rate: <u>350 mL/min</u>											

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**WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM**

PROJECT INFORMATION															
Site: <u>HEN PP</u>				Client: <u>VISTRA</u>											
Project Number: _____				Task #: _____				Start Date: <u>11-14-23</u>		Time: <u>1200</u>					
Field Personnel: <u>KLT &amp; TJD</u>				Finish Date: <u>11-14-23</u>				Time: <u>1300</u>							
WELL INFORMATION					EVENT TYPE										
Well ID: <u>32</u>					<input type="checkbox"/> Well Development		<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling								
Casing ID: _____ inches					<input type="checkbox"/> Well Volume Approach Sampling		<input type="checkbox"/> Other (Specify): _____								
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
<u>PURGE</u>	<u>1232</u>		<u>4.86</u>	<u>0.04</u>	<u>14.09</u>	<u>7.22</u>	<u>974.46</u>	<u>0.16</u>	<u>9.8</u>	<u>37.3</u>					
	<u>1235</u>		<u>4.87</u>	<u>0.05</u>	<u>14.15</u>	<u>7.22</u>	<u>981.52</u>	<u>0.16</u>	<u>9.32</u>	<u>39.8</u>					
	<u>1238</u>		<u>4.87</u>	<u>0.05</u>	<u>14.14</u>	<u>7.21</u>	<u>1070.7</u>	<u>0.15</u>	<u>8.93</u>	<u>42.1</u>					
	<u>1241</u>		<u>4.85</u>	<u>0.03</u>	<u>14.10</u>	<u>7.21</u>	<u>1052.4</u>	<u>0.16</u>	<u>7.53</u>	<u>44.6</u>					
<u>SAMPLE</u>	<u>1244</u>	<u>23.5</u>	<u>4.87</u>	<u>0.05</u>	<u>14.12</u>	<u>7.21</u>	<u>957.55</u>	<u>0.19</u>	<u>6.37</u>	<u>46.9</u>					
<i>[Handwritten signature]</i> <u>11-14-23</u>															
NOTES (continued)								ABBREVIATIONS							
								Cond - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTQC - Feet Below Top of Casing				SEC - Specific Electrical Conductance			
								na - Not Applicable				SU - Standard Units			
								nm - Not Measured				Temp - Temperature			
								°C - Degrees Celsius							

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### WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

#### PROJECT INFORMATION

Site: Hennepin POWER PLANT Client: VISTRA  
 Project Number: \_\_\_\_\_ Task #: \_\_\_\_\_ Start Date: 11/14/23 Time: 1320  
 Field Personnel: KLT / TJD Finish Date: 11-14-23 Time: \_\_\_\_\_

WELL INFORMATION	EVENT TYPE	PURGE INFORMATION
Well ID: <u>HEN-27</u> Casing ID: <u>73</u> Inches Screen Interval: _____ Borehole Diameter: _____ Inches Filter Pack Interval: _____	<input type="checkbox"/> Well Development <input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling <input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify below)	Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump Bailer Type: <u>n/a</u> Pump Type and Serial #: <u>RED BLADDER</u> Tube/Pump Intake Depth: _____ Stabilized Pumping Rate: _____

DEPTH MEASUREMENTS				VOLUME CALCULATION AND PRODUCTION INFORMATION				
	INITIAL		FINAL					
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)	Volume Calculation Type:			
LNAPL					<input type="checkbox"/> Well Casing	<input type="checkbox"/> Borehole		
Groundwater	<u>3.92</u>	<u>13:19</u>	<u>3.97</u>	<u>13:37</u>	Volume Per Foot: _____	Standing Water Column: _____ feet		
DNAPL					1 Well Volume: _____ Gallons	3 Well Volumes: _____ Gallons		
Casing Base					5 Well Volumes: _____ Gallons	10 Well Volumes: _____ Gallons		
Water Level Serial #: _____				Water Quality Probe Type and Serial # _____				
				Total Volumes Produced: _____ Gallons				
				Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No				

WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
Initial	13:25		3.92	0.00	13.76	7.49	1197.4	2.92	6.200	-35.4	CLEAR
purge	13:28		3.96	0.04	12.94	7.31	1208.1	1.02	6.54	-35.9	CLEAR
↓	13:31		3.97	0.05	12.84	7.30	1208.9	0.51	6.24	-43.8	CLEAR
↓	13:34		3.97	0.05	12.76	7.31	1207.9	0.40	6.56	-48.6	CLEAR
SAMPLE	13:37	<u>2/</u>	3.97	0.05	12.74	7.32	1206.3	0.38	6.12	-50.4	CLEAR
<u>PA2 11-14-23</u>											

PURGE RATE = 275 mL/min

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION													
Site: <u>HENNEPIN DP</u>						Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>11-14-23</u>				Time: <u>15:40</u>	
Field Personnel: <u>KLT / TJD</u>						Finish Date: <u>11-14-23</u>						Time: _____	
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION					
Well ID: <u>21R</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: _____ Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>					
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>BLADDER</u>					
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____								Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION								
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole							
		Depth	Time	Depth	Time	Volume Per Foot: _____							
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet							
LNAPL						1 Well Volume: _____ Gallons 3 Well Volumes: _____ Gallons							
Groundwater		<u>5.81</u>	<u>15:40</u>	<u>5.87</u>	<u>16:22</u>	5 Well Volumes: _____ Gallons 10 Well Volumes: _____ Gallons							
DNAPL						Total Volumes Produced: _____ Gallons							
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____								
WATER QUALITY INDICATOR PARAMETERS													
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity		
initial	<u>1549</u>		<u>5.81</u>	<u>0.00</u>	<u>14.40</u>	<u>7.48</u>	<u>1120.5</u>	<u>1.42</u>	<u>73.4</u>	<u>-73.1</u>	<u>clear-b</u>		
purge ↓ ↓ ↓ ↓ ↓ ↓ ↓	<u>1552</u>		<u>5.90</u>	<u>0.09</u>	<u>13.73</u>	<u>7.54</u>	<u>1089.9</u>	<u>0.58</u>	<u>73.2</u>	<u>-131.8</u>	<u>brown - murky</u>		
	<u>1555</u>		<u>5.92</u>	<u>0.11</u>	<u>13.71</u>	<u>7.56</u>	<u>993.59</u>	<u>0.50</u>	<u>63.4</u>	<u>-146.9</u>	<u>Milky</u>		
	<u>1601</u>		<u>5.85</u>	<u>0.07</u>	<u>13.64</u>	<u>7.59</u>	<u>945.60</u>	<u>0.42</u>	<u>60.9</u>	<u>-152.6</u>	<u>slightly Murky</u>		
	<u>1604</u>		<u>5.85</u>	<u>0.04</u>	<u>13.67</u>	<u>7.61</u>	<u>955.88</u>	<u>0.28</u>	<u>59.8</u>	<u>-156.8</u>	<u>slightly murky</u>		
	<u>1607</u>		<u>5.84</u>	<u>0.03</u>	<u>13.67</u>	<u>7.64</u>	<u>981.9</u>	<u>0.22</u>	<u>47.5</u>	<u>-160.0</u>	<u>↓</u>		
	<u>1610</u>		<u>5.85</u>	<u>0.04</u>	<u>13.62</u>	<u>7.66</u>	<u>1010.0</u>	<u>0.21</u>	<u>45.3</u>	<u>-162.2</u>	<u>slightly murky</u>		
						<u>13.59</u>	<u>7.67</u>	<u>1124.4</u>	<u>0.19</u>	<u>39.3</u>	<u>-164.0</u>	<u>↓</u>	
	Flow Rate: <u>400<sup>TD</sup> ML/min</u> <u>350</u> ROTTEN EGG-LIKE ODOR												

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>HEN PP</u>				Client: <u>VISTRA</u>											
Project Number: _____				Task #: _____				Start Date: <u>11-14-23</u>		Time: <u>1540</u>					
Field Personnel: <u>KU TJD</u>				Finish Date: <u>11-14-23</u>				Time: _____		Time: _____					
WELL INFORMATION				EVENT TYPE											
Well ID: <u>21R</u>				<input type="checkbox"/> Well Development <input type="checkbox"/> Well Volume Approach Sampling <input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling <input type="checkbox"/> Other (Specify): _____											
Casing ID: _____ inches															
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
<u>PURGE</u>	<u>1613</u>		<u>5.86</u>	<u>0.05</u>	<u>13.54</u>	<u>7.68</u>	<u>1,020.9</u>	<u>0.11</u>	<u>38.1</u>	<u>-163.4</u>	<u>milky</u>				
<u>↓</u>	<u>1616</u>		<u>5.86</u>	<u>0.05</u>	<u>13.54</u>	<u>7.68</u>	<u>1,064.5</u>	<u>0.28</u>	<u>38.8</u>	<u>-166.3</u>	<u>milky</u>				
<u>↓</u>	<u>1619</u>		<u>5.86</u>	<u>0.05</u>	<u>13.50</u>	<u>7.64</u>	<u>1,078.8</u>	<u>0.23</u>	<u>33.3</u>	<u>-166.7</u>	<u>milky</u>				
<u>sample</u>	<u>1622</u>	<u>24.5</u>	<u>5.87</u>	<u>0.00</u>	<u>13.44</u>	<u>7.70</u>	<u>1,692.0</u>	<u>0.12</u>	<u>31.6</u>	<u>-167.1</u>	<u>milky</u>				
<div style="font-size: 2em; font-weight: bold; opacity: 0.5;">           JTD 11-15-23         </div>															
NOTES (continued)								ABBREVIATIONS							
								Cond - Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured				ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celsius			

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Hennepin P.D.</u>				Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <u>11/15/23</u>			Time: <u>0830</u>		
Field Personnel: <u>KLJ/TJD</u>				Finish Date: <u>11/15/23</u>				Time: _____			
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEN-35</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump			
Casing ID: <u>822</u> Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>			
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>GED BLUDDER</u>			
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____			
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
	INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole						
	Depth	Time	Depth	Time	Volume Per Foot: _____						
	FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet						
LNAPL					1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons				
Groundwater	<u>8.17</u>	<u>0830</u>	<u>8.20</u>	<u>0856</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons				
DNAPL					Total Volumes Produced: _____ Gallons						
Casing Base					Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>0844</u>		<u>8.17</u>	<u>0.00</u>	<u>15.46</u>	<u>6.75</u>	<u>2.416.6</u>	<u>0.43</u>	<u>16.9</u>	<u>239.0</u>	<u>Clear/Brown</u>
purge	<u>0847</u>		<u>8.18</u>	<u>0.01</u>	<u>15.464</u>	<u>6.81</u>	<u>2.414.2</u>	<u>0.28</u>	<u>7.37</u>	<u>236.5</u>	<u>Clear</u>
	<u>0850</u>		<u>8.19</u>	<u>0.02</u>	<u>15.47</u>	<u>6.84</u>	<u>2.394.8</u>	<u>0.26</u>	<u>3.84</u>	<u>233.4</u>	<u>Clear</u>
	<u>0853</u>		<u>8.19</u>	<u>0.02</u>	<u>15.53</u>	<u>6.85</u>	<u>2.402.2</u>	<u>0.23</u>	<u>1.46</u>	<u>230.1</u>	<u>Clear</u>
SAMPLE	<u>0856</u>	<u>21.5</u>	<u>8.20</u>	<u>0.03</u>	<u>15.56</u>	<u>6.86</u>	<u>2.410.7</u>	<u>0.21</u>	<u>0.60</u>	<u>227.5</u>	<u>Clear</u>
<u>KLJ</u> <u>11-15-23</u>											
Flow Rate: <u>325 mL/min</u> Secondary pH: <u>6.83</u>											

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Hennepin PP</u>				Client: <u>VISTRAL</u>							
Project Number: _____			Task #: _____			Start Date: <u>11/15/23</u>			Time: <u>1015</u>		
Field Personnel: <u>KLT / TJD</u>				Finish Date: <u>11/15/23</u>				Time: _____			
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION					
Well ID: <u>HEN 51</u>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: <u>33</u> Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: <u>n/a</u>					
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>RED BLADDER</u>					
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____						Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____		Standing Water Column: _____ feet			
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons			
LNAPL						5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons			
Groundwater		<u>18.44</u>	<u>1015</u>	<u>18.73</u>	<u>1042</u>	Total Volumes Produced: _____ Gallons					
DNAPL						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Casing Base											
Water Level Serial #: _____					Water Quality Probe Type and Serial #: _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
Initial	1023		<u>18.5044</u>	<u>0.00</u>	<u>13.07</u>	<u>7.36</u>	<u>1,501.2</u>	<u>1.42</u>	<u>12.7</u>	<u>-67.5</u>	<u>Milky</u>
↓	1026		<u>18.7254</u>	<u>0.06</u>	<u>13.00</u>	<u>7.38</u>	<u>1,507.7</u>	<u>0.60</u>	<u>12.1</u>	<u>-95.3</u>	<u>Clear</u>
	1027		<u>18.72</u>	<u>0.28</u>	<u>13.03</u>	<u>7.39</u>	<u>1,507.9</u>	<u>0.43</u>	<u>12.7</u>	<u>-101.7</u>	<u>CFAR</u>
	1030		<u>18.73</u>	<u>0.29</u>	<u>13.02</u>	<u>7.41</u>	<u>1,505.6</u>	<u>0.27</u>	<u>17.1</u>	<u>-110.9</u>	<u>Clear</u>
	1033		<u>18.75</u>	<u>0.31</u>	<u>12.98</u>	<u>7.42</u>	<u>1,506.9</u>	<u>0.20</u>	<u>19.7</u>	<u>-116.6</u>	<u>Clear</u>
	1036		<u>18.75</u>	<u>0.31</u>	<u>13.01</u>	<u>7.42</u>	<u>1,506.0</u>	<u>0.16</u>	<u>16.4</u>	<u>-120.3</u>	<u>Clear</u>
↓	1039		<u>18.73</u>	<u>0.27</u>	<u>12.99</u>	<u>7.43</u>	<u>1,506.2</u>	<u>0.14</u>	<u>16.0</u>	<u>-123.1</u>	<u>clear</u>
SAMPLE	1042	<u>~1.5</u>	<u>18.73</u>	<u>0.27</u>	<u>13.01</u>	<u>7.43</u>	<u>1,505.3</u>	<u>0.13</u>	<u>14.5</u>	<u>-124.9</u>	<u>Clear</u>
<p>* PURGE RATE ~ 300 mL/min</p> <p>* Secondary pH: 7.42 (1027), 7.33 (1036)</p> <p style="text-align: right;">• DUP DUPO1 (1047)</p>											

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KLT



### WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HEN P.P.</u>				Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <u>11/15/23</u>			Time: <u>1330</u>		
Field Personnel: <u>KUT &amp; TJD</u>				Finish Date: <u>11/15/23</u>				Time: _____			
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEN 49</u>				<input type="checkbox"/> Well Development <input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling <input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify below)				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump Bailer Type: <u>n/a</u> Pump Type and Serial #: <u>RED BLADDER</u> Tube/Pump Intake Depth: _____ Stabilized Pumping Rate: _____			
Casing ID: <u>_____</u> Inches											
Screen Interval: _____											
Borehole Diameter: _____ Inches											
Filter Pack Interval: _____											
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
	INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole						
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)	Volume Per Foot: _____						
LNAPL					Standing Water Column: _____ feet						
Groundwater	<u>21.67</u>	<u>1330</u>	<u>21.52</u>	<u>1358</u>	1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons				
DNAPL					5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons				
Casing Base					Total Volumes Produced: _____ Gallons						
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>1340</u>		<u>21.50</u>	<u>- 0.17</u>	<u>15.38</u>	<u>7.15</u>	<u>1,430.2</u>	<u>2.60</u>	<u>4.65</u>	<u>-33.0</u>	<u>clear</u>
purge	<u>1343</u>		<u>21.51</u>	<u>- 0.16</u>	<u>15.02</u>	<u>7.13</u>	<u>1,441.7</u>	<u>0.62</u>	<u>12.1</u>	<u>-11.0</u>	<u>clear</u>
	<u>1346</u>		<u>21.51</u>	<u>- 0.16</u>	<u>15.01</u>	<u>7.14</u>	<u>1,440.5</u>	<u>0.15</u>	<u>15.4</u>	<u>-3.4</u>	<u>clear</u>
↓	<u>1349</u>		<u>21.53</u>	<u>- 0.14</u>	<u>14.94</u>	<u>7.16</u>	<u>1,442.1</u>	<u>0.09</u>	<u>13.0</u>	<u>1.3</u>	<u>clear</u>
	<u>1352</u>		<u>21.56</u>	<u>- 0.11</u>	<u>15.00</u>	<u>7.17</u>	<u>1,440.7</u>	<u>0.08</u>	<u>11.4</u>	<u>5.0</u>	<u>clear</u>
↓	<u>1355</u>		<u>21.53</u>	<u>- 0.14</u>	<u>14.94</u>	<u>7.18</u>	<u>1,442.4</u>	<u>0.06</u>	<u>9.8</u>	<u>8.2</u>	<u>clear</u>
	<u>1358</u>	<u>~2</u>	<u>21.52</u>	<u>- 0.15</u>	<u>14.92</u>	<u>7.19</u>	<u>1,440.4</u>	<u>0.06</u>	<u>9.23</u>	<u>8.11.1</u>	<u>clear</u>
<u>MS/MSD01</u>											
<u>MS/MSD01</u>											

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**WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM**

PROJECT INFORMATION											
Site: <u>Hennepin P.P.</u>			Client: <u>VISTRA</u>			Project Number: _____			Task #: _____		
Field Personnel: <u>W &amp; TJD</u>			Start Date: <u>11/15/23</u>			Finish Date: <u>11/15/23</u>			Time: <u>1455</u>		
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEN-2210</u>		Casing ID: <u>820</u> Inches		<input type="checkbox"/> Well Development		<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling		Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump		Bailer Type: <u>n/a</u>	
Screen Interval: _____		Borehole Diameter: _____ Inches		<input type="checkbox"/> Well Volume Approach Sampling		<input type="checkbox"/> Other (Specify below)		Pump Type and Serial #: <u>RED BLADDER</u>		Tube/Pump Intake Depth: _____	
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
	Depth	Time	Depth	Time	Volume Per Foot: _____		Standing Water Column: _____ feet				
	FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons		5 Well Volumes: _____ Gallons		
LNAPL					Total Volumes Produced: _____ Gallons		Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Groundwater	<u>19.88</u>	<u>1455</u>	<u>19.26</u>	<u>1537</u>							
DNAPL											
Casing Base											
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>1458</u>		<u>19.08<sup>24</sup></u>	<u>0.16</u>	<u>16.64</u>	<u>7.35</u>	<u>1,019.4</u>	<u>1.34</u>	<u>3.24</u>	<u>-126.6</u>	<u>clear*</u>
purge	<u>1501</u>		<u>19.25</u>	<u>0.17</u>	<u>16.37</u>	<u>7.30</u>	<u>1,375.3</u>	<u>0.78</u>	<u>2.15</u>	<u>-115.1</u>	<u>clear*</u>
	<u>1504</u>		<u>19.25</u>	<u>0.17</u>	<u>16.32</u>	<u>7.32</u>	<u>259.97</u>	<u>0.69</u>	<u>3.34</u>	<u>-113.9</u>	<u>clear</u>
	<u>1507</u>		<u>19.25</u>	<u>0.17</u>	<u>16.21</u>	<u>7.33</u>	<u>1,218.6</u>	<u>0.64</u>	<u>4.21</u>	<u>-113.4</u>	<u>clear</u>
	<u>1510</u>		<u>19.20<sup>25</sup></u>	<u>0.20</u>	<u>16.24</u>	<u>7.35</u>	<u>1,249.5</u>	<u>0.80</u>	<u>3.29</u>	<u>-112.1</u>	<u>clear</u>
	<u>1513</u>		<u>19.28</u>	<u>0.20</u>	<u>16.19</u>	<u>7.37</u>	<u>540.13</u>	<u>1.29</u>	<u>2.68</u>	<u>-113.5</u>	<u>clear</u>
	<u>1516</u>		<u>19.28</u>	<u>0.20</u>	<u>16.23</u>	<u>7.38</u>	<u>937.92</u>	<u>0.64</u>	<u>2.26</u>	<u>-113.6</u>	<u>clear</u>
	<u>1519</u>		<u>19.29</u>	<u>0.21</u>	<u>16.16</u>	<u>7.40</u>	<u>1,268.9</u>	<u>0.31</u>	<u>3.59</u>	<u>-112.7</u>	<u>clear</u>
<ul style="list-style-type: none"> <li>• Flow Rate: <u>325 mL/min</u></li> <li>• (*) flocculent</li> <li>• Bubbles, possibly from line in well</li> <li>• Secondary pH: <u>7.38 (1510)</u></li> </ul>											

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**WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM**

**PROJECT INFORMATION**

Site: HEN P.O Client: VISTRA  
 Project Number: \_\_\_\_\_ Task #: \_\_\_\_\_ Start Date: 11-15-23 Time: 1455  
 Field Personnel: YLT & TJD Finish Date: 11-15-23 Time: \_\_\_\_\_

**WELL INFORMATION**

Well ID: \_\_\_\_\_  
 Casing ID: \_\_\_\_\_ inches

**EVENT TYPE**

- Well Development  
 Well Volume Approach Sampling  
 Low-Flow / Low Stress Sampling  
 Other (Specify): \_\_\_\_\_

**WATER QUALITY INDICATOR PARAMETERS (continued)**

Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
<u>PURGE</u>	<u>1522</u>		<u>19.27</u>	<u>0.19</u>	<u>16.15</u>	<u>7.40</u>	<u>1,246.4</u>	<u>0.55</u>	<u>2.17</u>	<u>-113.2</u>	<u>clear</u>
	<u>1525</u>		<u>19.24</u>	<u>0.16</u>	<u>16.11</u>	<u>7.41</u>	<u>1,452.2</u>	<u>0.81</u>	<u>2.18</u>	<u>-112.9</u>	<u>clear*</u>
	<u>1528</u>		<u>19.26</u>	<u>0.18</u>	<u>16.15</u>	<u>7.41</u>	<u>1,339.8</u>	<u>0.81</u>	<u>2.66</u>	<u>-112.9</u>	<u>clear*</u>
	<u>1531</u>		<u>19.24</u>	<u>0.16</u>	<u>16.08</u>	<u>7.42</u>	<u>1,447.4</u>	<u>0.96</u>	<u>2.50</u>	<u>-112.3</u>	<u>clear*</u>
	<u>1534</u>		<u>19.24</u>	<u>0.16</u>	<u>16.08</u>	<u>7.42</u>	<u>1,333.6</u>	<u>0.92</u>	<u>2.72</u>	<u>-112.1</u>	<u>clear*</u>
<u>SAMPLE</u>	<u>1537</u>	<u>25</u>	<u>19.26</u>	<u>0.18</u>	<u>16.22</u>	<u>7.42</u>	<u>1,361.1</u>	<u>0.72</u>	<u>2.17</u>	<u>-112.1</u>	<u>clear*</u>

**NOTES (continued)**

**ABBREVIATIONS**

- Cond. - Actual Conductivity  
 FT BTOC - Feet Below Top of Casing  
 na - Not Applicable  
 nm - Not Measured  
 ORP - Oxidation-Reduction Potential  
 SEC - Specific Electrical Conductance  
 SU - Standard Units  
 Temp - Temperature  
 °C - Degrees Celsius

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Hennepin P.P.</u>				Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <u>11/15/23</u>			Time: <u>1540</u>		
Field Personnel: <u>VJT/TJD</u>				Finish Date: <u>11/15/23</u>				Time: _____			
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEAL 22</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump			
Casing ID: <u>#2</u> Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>			
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>BLADDER</u>			
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____			
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
INITIAL		FINAL			Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole						
Depth	Time	Depth	Time	Volume Per Foot: _____							
FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet							
LNAPL				1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons					
Groundwater	<u>18.45</u>	<u>1540</u>	<u>18.45</u>	<u>16:18</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons				
DNAPL				Total Volumes Produced: _____ Gallons							
Casing Base				Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Water Level Serial #: _____				Water Quality Probe Type and Serial # _____							
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>1606</u>		<u>18.47</u>	<u>0.02</u>	<u>15.88</u>	<u>7.67</u>	<u>1,357.8</u>	<u>0.70</u>	<u>0.64</u>	<u>-52.4</u>	<u>clear</u>
purge	<u>1609</u>		<u>18.46</u>	<u>0.01</u>	<u>15.81</u>	<u>7.68</u>	<u>1,355.8</u>	<u>0.15</u>	<u>0.55</u>	<u>-51.2</u>	<u>clear</u>
	<u>1612</u>		<u>18.45</u>	<u>0.00</u>	<u>15.74</u>	<u>7.70</u>	<u>1,353.2</u>	<u>0.13</u>	<u>0.55</u>	<u>-50.1</u>	<u>clear</u>
	<u>1615</u>		<u>18.47</u>	<u>0.02</u>	<u>15.69</u>	<u>7.71</u>	<u>1,350.2</u>	<u>0.11</u>	<u>0.77</u>	<u>-49.0</u>	<u>clear</u>
SAMPLE	<u>1618</u>	<u>20.5</u>	<u>18.45</u>	<u>0.00</u>	<u>15.68</u>	<u>7.72</u>	<u>1,303.0</u>	<u>0.11</u>	<u>0.49</u>	<u>-48.4</u>	<u>clear</u>
						<u>11-15-23</u>					
*Flow Rate: 250 mL/min											

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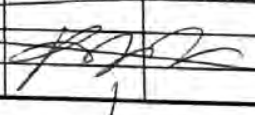
WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																					
Site: <u>Hennepin Power Plant</u>						Client: <u>VISTRA</u>															
Project Number: _____			Task #: _____			Start Date: <u>11/16/23</u>			Time: <u>1100</u>												
Field Personnel: <u>WLT TJD</u>			Finish Date: <u>11/16/23</u>			Time: _____			Time: _____												
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION													
Well ID: <u>HEN185</u>		Casing ID: <u>POD</u> Inches		Screen Interval: _____		Borehole Diameter: _____ Inches		Filter Pack Interval: _____		<input type="checkbox"/> Well Development <input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling <input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify below)		Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump		Bailer Type: <u>n/a</u>		Pump Type and Serial #: <u>BLADDER</u>		Tube/Pump Intake Depth: _____		Stabilized Pumping Rate: _____	
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION																
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole		Volume Per Foot: _____				Standing Water Column: _____ feet									
		Depth	Time	Depth	Time	1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons		5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons									
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Total Volumes Produced: _____ Gallons		Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No													
LNAPL																					
Groundwater		<u>40.72</u>	<u>1100</u>	<u>40.76</u>	<u>11.32</u>																
DNAPL																					
Casing Base																					
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____																
WATER QUALITY INDICATOR PARAMETERS																					
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity										
initial	1123		<u>40.74</u>	<u>0.02</u>	<u>16.95</u>	<u>7.42</u>	<u>1,649.0</u>	<u>0.61</u>	<u>2.26</u>	<u>128.7</u>	<u>clear</u>										
purge	1126		<u>40.76</u>	<u>0.04</u>	<u>16.99</u>	<u>7.44</u>	<u>1,648.0</u>	<u>0.24</u>	<u>1.42</u>	<u>126.8</u>	<u>clear</u>										
↓	1129		<u>40.75</u>	<u>0.03</u>	<u>17.00</u>	<u>7.46</u>	<u>1,648.8</u>	<u>0.19</u>	<u>1.31</u>	<u>123.0</u>	<u>clear</u>										
SAMPLE	1132	<u>20.5</u>	<u>40.76</u>	<u>0.04</u>	<u>17.01</u>	<u>7.45</u>	<u>1,648.2</u>	<u>0.17</u>	<u>0.91</u>	<u>121.2</u>	<u>clear</u>										
<u>1130 11-16-23</u>																					

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HEN-10 Hennepin P.P</u>				Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <u>11/16/23</u>			Time: <u>1515</u>		
Field Personnel: <u>TJD</u>				Finish Date: <u>11/16/23</u>				Time: _____			
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEN-10</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump			
Casing ID: <u>822</u> Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>			
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>BLADDER</u>			
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____			
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____		Standing Water Column: _____ feet			
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons			
LNAPL						5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons			
Groundwater		<u>50.67</u>	<u>1525</u>	<u>50.64</u>	<u>1541</u>	Total Volumes Produced: _____ Gallons					
DNAPL						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Casing Base											
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1529		50.66	-0.01	<u>19.53</u>	7.14	1,654.2	2.07	0.68	114.9	
purge	1532		50.67	0.00	19.69	7.13	1,664.1	1.64	0.104	114.9	
	1535		50.66	-0.01	19.76	7.13	1,843.1	1.60	0.52	114.1	
	1538		50.65	-0.02	19.80	7.12	1,844.1	1.59	0.67	113.9	
SAMPLE	1541	20.5	50.66	-0.01	19.80	7.12	1,844.6	1.59	0.70	113.7	
											



## WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Hennepin PP</u>				Client: <u>VISTRA</u>				Time: <u>0815 0353</u>			
Project Number: _____			Task #: _____			Start Date: <u>11-17-23</u>			Time: _____		
Field Personnel: <u>TJD</u>				Finish Date: <u>11-17-23</u>				Time: <u>0902</u>			
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEN 54</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump			
Casing ID: <u>402</u> Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>			
Screen Interval: _____ Inches				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>BLADDER</u>			
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____			
Filter Pack Interval: _____ Inches								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
					Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole						
					Volume Per Foot: _____ feet						
					Standing Water Column: _____ feet						
					1 Well Volume: _____ Gallons    3 Well Volumes: _____ Gallons						
					5 Well Volumes: _____ Gallons    10 Well Volumes: _____ Gallons						
					Total Volumes Produced: _____ Gallons						
					Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	0853		52.10	0.00	16.45	7.27	4,740.0	1.43	4.36	230.2	
purge	0856		53.11	0.01	17.03	7.32	4,715.8	1.02	3.59	215.6	
↓	0859		53.11	0.01	17.04	7.35	4,708.0	0.68	2.41	212.8	
SAMPLE	0902	20.5	53.10	0.00	16.47	7.30	4,702.0	0.57	3.14	200.0	

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**WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM**

PROJECT INFORMATION													
Site: <u>Hennepin POWER PLANT</u>						Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>11-17-23</u>				Time: <u>1955</u>	
Field Personnel: <u>TJD</u>						Finish Date: <u>11-17-23</u>						Time: _____	
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION					
Well ID: <u>HEN-12</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: <u>722</u> Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>					
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>Bueller</u>					
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____								Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION								
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole							
		Depth	Time	Depth	Time	Volume Per Foot: _____							
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet							
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons					
Groundwater		<u>51.08</u>	<u>0755</u>	<u>51.08</u>	<u>1019</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons					
DNAPL						Total Volumes Produced: _____ Gallons							
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Water Level Serial #: _____						Water Quality Probe Type and Serial #: _____							
WATER QUALITY INDICATOR PARAMETERS													
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity		
initial	<u>1007</u>		<u>51.06</u>	<u>-0.02</u>	<u>18.50</u>	<u>7.37</u>	<u>477.70</u>	<u>2.41</u>	<u>1.32</u>	<u>157.4</u>	<u>Clear</u>		
purge	<u>1012</u>		<u>51.07</u>	<u>-0.01</u>	<u>18.69</u>	<u>7.36</u>	<u>477.0</u>	<u>2.36</u>	<u>1.02</u>	<u>153.6</u>	<u>Clear</u>		
	<u>1013</u>		<u>51.07</u>	<u>-0.01</u>	<u>18.72</u>	<u>7.36</u>	<u>477.6</u>	<u>2.33</u>	<u>1.02</u>	<u>147.0</u>	<u>Clear</u>		
	<u>1016</u>		<u>51.08</u>	<u>0.00</u>	<u>18.69</u>	<u>7.35</u>	<u>477.4</u>	<u>2.31</u>	<u>1.31</u>	<u>144.7</u>	<u>Clear</u>		
SAMPLE	<u>1019</u>	<u>21</u>	<u>51.08</u>	<u>0.00</u>	<u>18.67</u>	<u>7.35</u>	<u>477.3</u>	<u>2.30</u>	<u>1.04</u>	<u>140.1</u>	<u>Clear</u>		
Flow Rate: <u>300 mL/min</u>													

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### WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Hennepin Power Plant</u>				Client: <u>NISTR</u>							
Project Number: _____			Task #: _____			Start Date: <u>11-17-23</u>			Time: <u>1222</u>		
Field Personnel: <u>TJD</u>				Finish Date: <u>11-17-23</u>				Time: <u>1231</u>			
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>HEN-08D</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump			
Casing ID: <u>222</u> Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>			
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>BLADDER</u>			
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____			
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet					
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons			
Groundwater		<u>54.05</u>	<u>1222</u>	<u>54.04</u>	<u>1231</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons			
DNAPL						Total Volumes Produced: _____ Gallons					
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Water Level Serial #: _____					Water Quality Probe Type and Serial #: _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>1222</u>		<u>54.04</u>	<u>-0.01</u>	<u>13.62</u>	<u>6.78</u>	<u>11,073</u>	<u>0.34</u>	<u>2.14</u>	<u>154.6</u>	<u>Clear</u>
purge	<u>1225</u>		<u>54.04</u>	<u>-0.01</u>	<u>13.60</u>	<u>6.76</u>	<u>11,033</u>	<u>0.32</u>	<u>2.25</u>	<u>153.8</u>	<u>Clear</u>
↓	<u>1228</u>		<u>54.04</u>	<u>-0.01</u>	<u>13.59</u>	<u>6.76</u>	<u>11,037</u>	<u>0.16</u>	<u>2.18</u>	<u>153.0</u>	<u>Clear</u>
SAMPLE	<u>1231</u>	<u>~ 1</u>	<u>54.04</u>	<u>-0.01</u>	<u>13.63</u>	<u>6.76</u>	<u>11,218</u>	<u>0.12</u>	<u>1.36</u>	<u>152.3</u>	<u>Clear</u>
<del>_____</del>											
<del>_____</del>											
<del>_____</del>											
<del>_____</del>											

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>Hennepin P.P.</u>				Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>11/17/23</u>		Time: <u>1400</u>	
Field Personnel: <u>TJD</u>				Finish Date: <u>11/17/23</u>				Time: _____			
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION					
Well ID: <del>WELL 17</del>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: <u>#22</u> Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: <u>n/a</u>					
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>BLADDER</u>					
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: <u>1</u>					
Filter Pack Interval: _____						Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet					
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons			
Groundwater		<u>55.35</u>	<u>1400</u>	<u>55.36</u>	<u>14:17</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons			
DNAPL						Total Volumes Produced: _____ Gallons					
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
Initial	<u>1400</u>		<u>55.35</u>	<u>0.00</u>	<u>17.85</u>	<u>7.31</u>	<u>4,370.2</u>	<u>5.75</u>	<u>2.06</u>	<u>132.0</u>	<u>clear</u>
purge	<u>1411</u>		<u>55.35</u>	<u>0.00</u>	<u>17.84</u>	<u>7.34</u>	<u>4,734.0</u>	<u>5.71</u>	<u>1.13</u>	<u>130.6</u>	<u>↓</u>
↓	<u>1414</u>		<u>55.36</u>	<u>0.01</u>	<u>17.87</u>	<u>7.34</u>	<u>4,726.7</u>	<u>5.70</u>	<u>1.40</u>	<u>130.3</u>	<u>↓</u>
SAMPLE	<u>1417</u>	<u>~1</u>	<u>55.36</u>	<u>0.01</u>	<u>17.89</u>	<u>7.34</u>	<u>4,723.0</u>	<u>5.69</u>	<u>1.05</u>	<u>130.7</u>	<u>↓</u>
<i>[Signature]</i>											
Flow Rate: <u>360 ML/min</u>											

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>Hennepin P.P</u>						Client: <u>VISTRA</u>									
Project Number: _____				Task #: _____				Start Date: <u>11/20/23</u>				Time: _____			
Field Personnel: <u>TJD</u>				Finish Date: <u>11/20/23</u>				Time: _____							
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION							
Well ID: <u>HEN-455</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump							
Casing ID: _____ Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>							
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>BLADDER</u>							
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____							
Filter Pack Interval: _____								Stabilized Pumping Rate: _____							
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION										
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole									
		Depth	Time	Depth	Time	Volume Per Foot: _____									
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet									
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons							
Groundwater		<u>20.55</u>	<u>0851</u>	<u>20.56</u>	<u>0915</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons							
DNAPL						Total Volumes Produced: _____ Gallons									
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____										
WATER QUALITY INDICATOR PARAMETERS															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
initial	0851		20.55	0.00	18.00	7.17	6,047.3	0.31	115	202.4	Murky				
purge	0854		20.55	0.00	18.12	7.19	5,999.3	0.15	98	206.5	cloudy				
	0857		20.60	0.05	18.08	7.20	5,985.8	0.11	116	200.2	cloudy				
	0900		20.55	0.00	18.15	7.20	5,977.5	0.10	95	198.4	cloudy				
	0903		20.55	0.00	18.22	7.20	5,969.5	0.09	87.6	196.4	cloudy				
	0906		20.56	0.01	17.85	7.20	5,970.3	0.11	76.8	195.0	cloudy				
	0910		20.56	0.01	18.25	7.20	5,963.6	0.10	88.7	192.2	cloudy				
	0912		20.56	0.01	18.27	7.20	5,963.6	0.10	48.3	189.9	cloudy				

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**WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM**

PROJECT INFORMATION															
Site: <u>HEN POWER PLANT</u>						Client: <u>VISTRA</u>									
Project Number: _____				Task #: _____		Start Date: <u>11-20-23</u>				Time: _____					
Field Personnel: _____				Finish Date: <u>11-20-23</u>		Time: _____									
WELL INFORMATION				EVENT TYPE											
Well ID: <u>455</u>				<input type="checkbox"/> Well Development				<input type="checkbox"/> Low-Flow / Low Stress Sampling							
Casing ID: _____ inches				<input type="checkbox"/> Well Volume Approach Sampling				<input type="checkbox"/> Other (Specify): _____							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
<u>SAMPLE</u>	<u>0915</u>	<u>23</u>	<u>2056</u>	<u>0.0'</u>	<u>18.22</u>	<u>7.20</u>	<u>596.3</u>	<u>0.09</u>	<u>40.3</u>	<u>188.1</u>	<u>clearly</u>				
NOTES (continued)								ABBREVIATIONS							
								Cond - Actual Conductivity				ORP - Oxidation-Reduction Potential			
								FT BTOC - Feet Below Top of Casing				SEC - Specific Electrical Conductance			
								na - Not Applicable				SU - Standard Units			
								nm - Not Measured				Temp - Temperature			
								°C - Degrees Celsius							

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION																					
Site: <u>Hennepin P.P.</u>				Client: <u>VISTRA</u>																	
Project Number: _____			Task #: _____			Start Date: <u>11/20/23</u>			Time: _____												
Field Personnel: <u>TJO</u>				Finish Date: <u>11/20/23</u>				Time: _____													
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION													
Well ID: <u>HEN-80</u>		Casing ID: <u>R22</u> Inches		Screen Interval: _____		Borehole Diameter: _____ Inches		Filter Pack Interval: _____		<input type="checkbox"/> Well Development <input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling <input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify below)		Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump		Bailer Type: <u>n/a</u>		Pump Type and Serial #: <u>BLADDER</u>		Tube/Pump Intake Depth: _____		Stabilized Pumping Rate: _____	
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION																
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole		Volume Per Foot: _____				Standing Water Column: _____ feet									
		Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)	1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons		5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons									
LNAPL						Total Volumes Produced: _____ Gallons		Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Groundwater		<u>45.15</u>	<u>1119</u>	<u>45.14</u>	<u>1130</u>	Water Level Serial #: _____						Water Quality Probe Type and Serial # _____									
DNAPL						WATER QUALITY INDICATOR PARAMETERS															
Casing Base						Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
						initial	<u>1119</u>		<u>45.15</u>	<u>0.00</u>	<u>12.10</u>	<u>7.02</u>	<u>6.059.4</u>	<u>2.82</u>	<u>1.37</u>	<u>146.2</u>	<u>Clear</u>				
						purge	<u>1122</u>		<u>45.15</u>	<u>0.00</u>	<u>12.07</u>	<u>7.03</u>	<u>6.045.7</u>	<u>2.82</u>	<u>1.08</u>	<u>146.2</u>	<u>↓</u>				
							<u>1125</u>		<u>45.15</u>	<u>0.00</u>	<u>12.04</u>	<u>7.04</u>	<u>6.033.8</u>	<u>2.82</u>	<u>0.12</u>	<u>146.4</u>	<u>↓</u>				
							<u>1128</u>		<u>45.14</u>	<u>-0.01</u>	<u>12.07</u>	<u>7.04</u>	<u>6.037.5</u>	<u>2.83</u>	<u>0.14</u>	<u>146.4</u>	<u>↓</u>				
						SAMPLE	<u>1130</u>	<u>21</u>	<u>45.14</u>	<u>-0.01</u>	<u>12.07</u>	<u>7.04</u>	<u>6.025.4</u>	<u>2.83</u>	<u>0.89</u>	<u>146.5</u>	<u>↓</u>				
						<del>11-20-23</del>															

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN POWER PLANT</u>						Client: <u>VISTRA</u>					
Project Number: _____			Task #: _____			Start Date: <u>11-20-23</u>			Time: <u>12:30</u>		
Field Personnel: <u>KITTD</u>			Finish Date: <u>11-20-23</u>			Time: _____			Time: _____		
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>07</u>		Casing ID: _____ Inches		<input type="checkbox"/> Well Development		<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling		Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump		Bailer Type: <u>n/a</u>	
Screen Interval: _____		Borehole Diameter: _____ Inches		<input type="checkbox"/> Well Volume Approach Sampling		<input type="checkbox"/> Other (Specify below)		Pump Type and Serial #: <u>RED BLADDER</u>		Tube/Pump Intake Depth: _____	
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet					
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons			
Groundwater		<u>68.55</u>	<u>12:37</u>	<u>68.54</u>	<u>13:12</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons			
DNAPL						Total Volumes Produced: _____ Gallons					
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	1251		68.55	0.00	11.45	6.97	7,370.3	4.23	0.44	176.0	clear
purge	1254		68.55	0.00	11.46	6.97	7,376.4	4.11	0.78	174.7	clear*
	1257		68.55	0.00	11.49	6.97	7,355.1	4.05	0.00	173.1	clear*
	1300		68.55	0.00	11.33	6.97	7,322.8	4.02	0.11	173.3	clear
	1303		68.55	0.00	10.99	6.97	7,300.9	4.01	0.67	173.0	clear
	1308		68.54	-0.01	11.42	6.97	7,303.0	4.03	0.51	172.1	clear
↓	1309		68.53	0.00	11.40	6.97	7,374.2	4.05	0.61	171.8	↓
SAMPLE	1312	~2.5	68.54	-0.01	11.42	6.96	7,297.5	4.01	0.64	171.3	↓
* w/ light brown flocculent Flow Rate = 425 mL/min						* Turbidity measurement is @ 0.01, even when checked w/ standard.					

} \* pump battery was changed

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### WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN POWER PLANT</u>				Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <u>11-16-23</u>			Time: <u>10:50</u>		
Field Personnel: <u>KLT</u>			Finish Date: <u>11-16-23</u>			Time: <u>12:50</u>					
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION			
Well ID: <u>18D</u>				<input type="checkbox"/> Well Development				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump			
Casing ID: _____ Inches				<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling				Bailer Type: <u>n/a</u>			
Screen Interval: _____				<input type="checkbox"/> Well Volume Approach Sampling				Pump Type and Serial #: <u>BLADDER</u>			
Borehole Diameter: _____ Inches				<input type="checkbox"/> Other (Specify below)				Tube/Pump Intake Depth: _____			
Filter Pack Interval: _____								Stabilized Pumping Rate: _____			
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet					
LNAPL						1 Well Volume: _____ Gallons    3 Well Volumes: _____ Gallons					
Groundwater		<u>40.80</u>	<u>10:56</u>	<u>40.87</u>	<u>11:55</u>	5 Well Volumes: _____ Gallons    10 Well Volumes: _____ Gallons					
DNAPL						Total Volumes Produced: _____ Gallons					
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>11:13</u>		<u>40.90</u>	<u>0.10</u>	<u>16.90</u>	<u>7.18</u>	<u>3.05</u>	<u>3.25</u>	<u>12.870</u>	<u>167.8</u>	<u>CLEAR</u>
↓	purge		<u>40.91</u>	<u>0.11</u>	<u>16.97</u>	<u>7.13</u>	<u>56.39</u>	<u>2.45</u>	<u>14.0</u>	<u>151.4</u>	<u>CLEAR</u>
		<u>11:19</u>	<u>40.92</u>	<u>0.12</u>	<u>17.01</u>	<u>7.10</u>	<u>58.02</u>	<u>4.52</u>	<u>18.4</u>	<u>126.6</u>	<u>CLEAR</u>
		<u>11:22</u>	<u>40.96</u>	<u>0.16</u>	<u>17.03</u>	<u>7.07</u>	<u>2.48</u>	<u>4.69</u>	<u>17.7</u>	<u>103.3</u>	<u>CLEAR</u>
		<u>11:25</u>	<u>40.92</u>	<u>0.12</u>	<u>17.06</u>	<u>7.10</u>	<u>45.75</u>	<u>6.21</u>	<u>19.3</u>	<u>54.9</u>	<u>CLEAR</u>
		<u>11:28</u>	<u>40.87</u>	<u>0.07</u>	<u>17.05</u>	<u>7.00</u>	<u>56.35</u>	<u>5.54</u>	<u>15.4</u>	<u>33.8</u>	<u>CLEAR</u>
		<u>11:31</u>	<u>40.86</u>	<u>0.06</u>	<u>17.15</u>	<u>6.92</u>	<u>37.17</u>	<u>6.15</u>	<u>17.5</u>	<u>39.8</u>	<u>CLEAR</u>
		<u>11:34</u>	<u>40.86</u>	<u>0.06</u>	<u>17.21</u>	<u>6.90</u>	<u>4.52</u>	<u>6.06</u>	<u>14.8</u>	<u>54.3</u>	<u>CLEAR</u>
<p>Flow Rate @ 350ml/min drop to 275 ml/min @ 11:22</p>											

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SECONDARY PH READ 7.02



WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>HENNEPIN POWER PLANT</u>						Client: <u>VISTRA</u>		Start Date: <u>11-16-23</u>		Time: <u>10:56</u>					
Project Number: _____				Task #: _____		Finish Date: <u>11-16-23</u>		Time: <u>12:50</u>							
Field Personnel: <u>KLT</u>															
WELL INFORMATION				EVENT TYPE											
Well ID: <u>18D</u>				<input type="checkbox"/> Well Development				<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling							
Casing ID: _____ inches				<input type="checkbox"/> Well Volume Approach Sampling				<input type="checkbox"/> Other (Specify): _____							
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
PURGE	11:37		40.86	0.06	17.39	7.03	53.42	5.64	14.2	61.1	CLEAR				
	11:40		40.86	0.06	17.62	6.97	43.42	5.58	-	71.0	CLEAR				
	11:43		40.87	0.07	17.80	6.88	9.32	5.24	13.5	71.8	CLEAR				
	11:46		40.87	0.07	18.04	6.86	8.05	5.32	10.6	77.0	CLEAR				
	11:49		40.87	0.07	18.25	6.82	14.40	4.94	12.2	82.5	CLEAR				
	11:52		40.87	0.07	18.37	6.74	20.93	4.21	9.76	76.7	CLEAR				
SAMPLE	11:55	2 gal	40.87	0.07	18.54	6.74	14.81	4.80	10.28	75.5	CLEAR				
<del>11-16-23</del>															
NOTES (continued)								ABBREVIATIONS							
								Cond - Actual Conductivity				ORP - Oxidation Reduction Potential			
								FT BTDC - Feet Below Top of Casing				SEC - Specific Electrical Conductance			
								na - Not Applicable				SU - Standard Units			
								nm - Not Measured				Temp - Temperature			
												°C - Degrees Celsius			

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### WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN POWER PLANT</u>				Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>11-16-23</u>		Time: <u>13:15</u>	
Field Personnel: <u>YLT</u>				Finish Date: <u>11-16-23</u>				Time: <u>14:35</u>			
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION					
Well ID: <u>05DR</u>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: _____ Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: <u>n/a</u>					
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>QED Packer</u>					
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____						Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet					
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons			
Groundwater		<u>41.20</u>	<u>13:15</u>	<u>41.30</u>	<u>13:40</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons			
DNAPL						Total Volumes Produced: _____ Gallons					
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>13:34</u>		<u>41.30</u>	<u>0.10</u>	<u>16.95</u>	<u>7.37</u>	<u>1,310.7</u>	<u>3.57</u>	<u>1.57</u>	<u>94.3</u>	<u>CLEAR</u>
purge	<u>13:37</u>		<u>41.30</u>	<u>0.10</u>	<u>17.00</u>	<u>7.39</u>	<u>1,311.3</u>	<u>1.98</u>	<u>0.80</u>	<u>91.1</u>	<u>CLEAR</u>
	<u>13:40</u>		<u>41.30</u>	<u>0.10</u>	<u>17.00</u>	<u>7.40</u>	<u>1,359.8</u>	<u>1.14</u>	<u>1.22</u>	<u>88.2</u>	<u>CLEAR</u>
	<u>13:43</u>		<u>41.30</u>	<u>0.10</u>	<u>17.00</u>	<u>7.41</u>	<u>1,358.4</u>	<u>0.95</u>	<u>1.816</u>	<u>85.8</u>	<u>CLEAR</u>
	<u>13:46</u>	<u>~2 gal</u>	<u>41.30</u>	<u>0.10</u>	<u>16.99</u>	<u>7.41</u>	<u>1,359.9</u>	<u>0.91</u>	<u>1.87</u>	<u>84.7</u>	<u>CLEAR</u>
<del>QED 11-16-23</del>											
FLOW RATE = 200ml/min											

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION													
Site: <u>HEN P.P.</u>						Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>11-16-23</u>				Time: <u>14:50</u>	
Field Personnel: <u>KLT</u>				Finish Date: <u>11-16-23</u>				Time: <u>15:48</u>					
WELL INFORMATION			EVENT TYPE				PURGE INFORMATION						
Well ID: <u>405</u>			<input type="checkbox"/> Well Development <input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling <input type="checkbox"/> Well Volume Approach Sampling <input type="checkbox"/> Other (Specify below)				Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump						
Casing ID: _____ Inches							Bailer Type: <u>n/a</u>						
Screen Interval: _____							Pump Type and Serial #: <u>QED BLADDER</u>						
Borehole Diameter: _____ Inches							Tube/Pump Intake Depth: _____						
Filter Pack Interval: _____							Stabilized Pumping Rate: _____						
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION								
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole							
		Depth	Time	Depth	Time	Volume Per Foot: _____							
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet							
LNAPL						1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons					
Groundwater		<u>40.45</u>	<u>14:55</u>	<u>40.47</u>	<u>15:19</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons					
DNAPL						Total Volumes Produced: _____ Gallons							
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____								
WATER QUALITY INDICATOR PARAMETERS													
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity		
Initial	<u>15:07</u>		<u>40.45</u>	<u>0.00</u>	<u>17.06</u>	<u>7.79</u>	<u>1,276.6</u>	<u>0.89</u>	<u>0.50</u>	<u>58.5</u>	<u>CLEAR</u>		
purge	<u>15:10</u>		<u>40.46</u>	<u>0.01</u>	<u>17.10</u>	<u>7.80</u>	<u>1,277.1</u>	<u>0.24</u>	<u>0.67</u>	<u>56.2</u>	<u>CLEAR</u>		
	<u>15:13</u>		<u>40.47</u>	<u>0.02</u>	<u>17.09</u>	<u>7.81</u>	<u>1,276.4</u>	<u>0.17</u>	<u>0.66</u>	<u>54.4</u>	<u>CLEAR</u>		
	<u>15:16</u>		<u>40.47</u>	<u>0.02</u>	<u>17.08</u>	<u>7.81</u>	<u>1,276.1</u>	<u>0.14</u>	<u>0.19</u>	<u>53.0</u>	<u>CLEAR</u>		
SAMPLE	<u>15:19</u>	<u>~2 gal</u>	<u>40.47</u>	<u>0.02</u>	<u>17.07</u>	<u>7.81</u>	<u>1,276.6</u>	<u>0.12</u>	<u>0.27</u>	<u>51.8</u>	<u>↓</u>		
					<u>11-16-23</u>								
FLOW RATE = <u>400 mL/min</u>													

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN POWER PLANT</u>				Client: <u>VISTRA</u>							
Project Number: _____		Task #: _____		Start Date: <u>11-17-23</u>				Time: <u>08:25</u>			
Field Personnel: <u>KLT</u>		Finish Date: <u>11-17-23</u>									
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION					
Well ID: <u>47</u>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: _____ Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: <u>n/a</u>					
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>OED BLADDER</u>					
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____						Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS				VOLUME CALCULATION AND PRODUCTION INFORMATION							
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole					
		Depth	Time	Depth	Time	Volume Per Foot: _____					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet					
LNAPL						1 Well Volume: _____ Gallons 3 Well Volumes: _____ Gallons					
Groundwater		<u>55.52</u>	<u>08:27</u>	<u>55.53</u>	<u>09:33</u>	5 Well Volumes: _____ Gallons 10 Well Volumes: _____ Gallons					
DNAPL						Total Volumes Produced: _____ Gallons					
Casing Base						Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Water Level Serial #: _____				Water Quality Probe Type and Serial # _____							
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<del>08:43</del>		<u>55.53</u>	<u>0.01</u>	<u>17.42</u>	<u>6.92</u>	<u>1,037.1</u>	<u>2.04</u>	<u>0.23</u>	<u>230.8</u>	<u>CLEAR</u>
purge	<u>08:47</u>		<u>55.53</u>	<u>0.01</u>	<u>17.67</u>	<u>6.92</u>	<u>1,032.6</u>	<u>1.77</u>	<u>0.30</u>	<u>228.5</u>	<u>CLEAR</u>
	<u>08:50</u>		<u>55.53</u>	<u>0.01</u>	<u>17.80</u>	<u>6.96</u>	<u>1,035.2</u>	<u>1.74</u>	<u>0.27</u>	<u>224.2</u>	<u>CLEAR</u>
	<u>08:53</u>		<u>55.53</u>	<u>0.01</u>	<u>17.79</u>	<u>6.98</u>	<u>1,031.5</u>	<u>1.69</u>	<u>—</u>	<u>221.3</u>	<u>CLEAR</u>
*	<u>09:20</u>		<u>55.53</u>	<u>0.01</u>	<u>17.95</u>	<u>7.05</u>	<u>1,046.0</u>	<u>1.69</u>	<u>0.00</u>	<u>193.9</u>	<u>CLEAR</u>
	<u>09:23</u>		<u>55.53</u>	<u>0.01</u>	<u>17.96</u>	<u>7.07</u>	<u>1,085.4</u>	<u>1.66</u>	<u>0.00</u>	<u>192.6</u>	<u>CLEAR</u>
	<u>09:27</u>		<u>55.53</u>	<u>0.01</u>	<u>17.85</u>	<u>7.07</u>	<u>1,044.0</u>	<u>1.59</u>	<u>0.00</u>	<u>191.9</u>	<u>CLEAR</u>
	<u>09:30</u>		<u>55.53</u>	<u>0.01</u>	<u>17.89</u>	<u>7.07</u>	<u>1,044.4</u>	<u>1.57</u>	<u>0.00</u>	<u>190.7</u>	<u>CLEAR</u>
* TUBING AIR LEAK? BUBBLES IN LINE EURODINS PICKUP CAME EARLY (08:50) HAD TO STOP TEST TO DROP SAMPLES				FLOW RATE ~ 350ml/min							

1 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN P.P.</u>				Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <del>11-16-23</del> <u>11-17-23</u>			Time: <u>09:25</u>		
Field Personnel: <u>KUJ</u>				Finish Date: <u>11-17-23</u>				Time: <u>09:57</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>47</u>				<input type="checkbox"/> Well Development				<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling			
Casing ID: _____ inches				<input type="checkbox"/> Well Volume Approach Sampling				<input type="checkbox"/> Other (Specify): _____			
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
<u>SAMPLE PURGE</u> <u>POP</u>	<u>09:33</u>	<u>4 gal</u>	<u>55.53</u>	<u>0.01</u>	<u>17.87</u>	<u>7.07</u>	<u>1043.6</u>	<u>1.56</u>	<u>0.00</u>	<u>189.7</u>	<u>CLEAR</u>
<u>11-17-23</u>											
NOTES (continued)							ABBREVIATIONS				
							Cond - Actual Conductivity      ORP - Oxidation Reduction Potential FT BTOC - Feet Below Top of Casing      SEC - Specific Electrical Conductance na - Not Applicable      SU - Standard Units nm - Not Measured      Temp - Temperature °C - Degrees Celsius				

2 of 2



### WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

**PROJECT INFORMATION**

Site: HENNEPIN POWER PLANT Client: VISTRA  
 Project Number: \_\_\_\_\_ Task #: \_\_\_\_\_ Start Date: 11-17-23 Time: 11:21/11:58  
 Field Personnel: KLT Finish Date: 11-17-23 Time: 12:13:53

WELL INFORMATION	EVENT TYPE	PURGE INFORMATION
Well ID: <u>08</u>	<input type="checkbox"/> Well Development	Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump
Casing ID: _____ Inches	<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling	Bailer Type: <u>n/a</u>
Screen Interval: _____	<input type="checkbox"/> Well Volume Approach Sampling	Pump Type and Serial #: <u>GED BLADDER</u>
Borehole Diameter: _____ Inches	<input type="checkbox"/> Other (Specify below)	Tube/Pump Intake Depth: _____
Filter Pack Interval: _____		Stabilized Pumping Rate: _____

DEPTH MEASUREMENTS				VOLUME CALCULATION AND PRODUCTION INFORMATION				
	INITIAL		FINAL					
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)	Volume Calculation Type:			
LNAPL					<input type="checkbox"/> Well Casing	<input type="checkbox"/> Borehole		
Groundwater	<u>53.85</u>	<u>12:11</u>	<u>53.88</u>	<u>12:29</u>	Volume Per Foot: _____	Standing Water Column: _____ feet		
DNAPL					1 Well Volume: _____ Gallons	3 Well Volumes: _____ Gallons		
Casing Base					5 Well Volumes: _____ Gallons	10 Well Volumes: _____ Gallons		
					Total Volumes Produced: _____ Gallons			
					Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

Water Level Serial #: \_\_\_\_\_ Water Quality Probe Type and Serial #: \_\_\_\_\_

WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	12:17		53.89	0.04	13.80	6.88	2,039.5	2.58	0.24	168.2	CLEAR
purge	12:20		53.88	0.03	13.75	6.88	2,068.8	1.30	0.38	168.7	↓
	12:23		53.88	0.03	13.70	6.89	2,133.7	1.02	0.04	168.5	↓
	12:24		53.87	0.02	13.70	6.89	2,130.7	1.58	0.06	168.6	↓
	12:29		53.88	0.03	13.63	6.89	2,132.0	1.36	0.03	168.7	↓
<del>SAMPLE</del>	<del>12:32</del>		<del>53.88</del>	<del>0.03</del>	<del>13.62</del>						

DU003 ~300 mL/min

CALLED EUROFIN'S - AMMONIA BOTTLE MISSING FROM DUP KIT. CAN PULL FROM PHENOLS BOTTLE  
 - FOLLOW UP WAS JUST A DIFFERENT STYLE BOTTLE

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN P.P.</u>						Client: <u>VISTRA</u>					
Project Number: _____				Task #: _____		Start Date: <u>11-17-23</u>				Time: <u>13:55</u>	
Field Personnel: <u>KUT</u>				Finish Date: <u>11-17-23</u>		Time: _____					
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION					
Well ID: <u>110</u>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: _____ Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: <u>n/a</u>					
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>QED BLADDER</u>					
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____						Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
INITIAL		FINAL			Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole						
Depth	Time	Depth	Time	Volume Per Foot: _____ feet							
FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____ feet							
LNAPL				1 Well Volume: _____ Gallons		3 Well Volumes: _____ Gallons					
Groundwater	<u>54.42</u>	<u>14:05</u>	<u>54.49</u>	<u>14:29</u>	5 Well Volumes: _____ Gallons		10 Well Volumes: _____ Gallons				
DNAPL				Total Volumes Produced: _____ Gallons							
Casing Base				Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Water Level Serial #: _____				Water Quality Probe Type and Serial # _____							
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	14:11		<u>54.45</u>	<u>0.03</u>	<u>17.31</u>	<u>7.32</u>	<u>911.80</u>	<u>7.73</u>	<u>0.51</u>	<u>146.0</u>	<u>MILKY</u>
purge	14:14		<u>54.48</u>	<u>0.06</u>	<u>15.78</u>	<u>7.34</u>	<u>913.76</u>	<u>6.56</u>	<u>0.18</u>	<u>148.6</u>	<u>CLEAR</u>
	14:17		<u>54.49</u>	<u>0.07</u>	<u>15.57</u>	<u>7.33</u>	<u>915.96</u>	<u>6.16</u>	<u>0.29</u>	<u>149.7</u>	
	14:20		<u>54.49</u>	<u>0.07</u>	<u>15.50</u>	<u>7.34</u>	<u>916.04</u>	<u>6.05</u>	<u>0.26</u>	<u>150.0</u>	
	14:23		<u>54.48</u>	<u>0.06</u>	<u>15.27</u>	<u>7.34</u>	<u>915.63</u>	<u>6.01</u>	<u>0.19</u>	<u>150.4</u>	
	14:26		<u>54.49</u>	<u>0.07</u>	<u>15.33</u>	<u>7.34</u>	<u>915.63</u>	<u>5.98</u>	<u>0.09</u>	<u>150.8</u>	
SAMPLE	14:29		<u>54.49</u>	<u>0.07</u>	<u>15.24</u>	<u>7.34</u>	<u>915.25</u>	<u>5.98</u>	<u>0.14</u>	<u>151.1</u>	
<u>10F1</u>											
FLOW RATE = _____											

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION													
Site: <u>HENNEPIN POWER PLANT</u>						Client: <u>VISTRA</u>							
Project Number: _____			Task #: _____			Start Date: <u>11-20-23</u>			Time: <u>0828</u>				
Field Personnel: <u>KLT</u>						Finish Date: <u>11-20-23</u>			Time: <u>0935</u>				
WELL INFORMATION				EVENT TYPE				PURGE INFORMATION					
Well ID: <u>410</u>		Casing ID: _____ Inches		Screen Interval: _____		Borehole Diameter: _____ Inches		Filter Pack Interval: _____		<input type="checkbox"/> Well Development		<input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump	
										<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling		Bailer Type: <u>n/a</u>	
										<input type="checkbox"/> Well Volume Approach Sampling		Pump Type and Serial #: <u>RED BLADDER</u>	
										<input type="checkbox"/> Other (Specify below)		Tube/Pump Intake Depth: _____	
												Stabilized Pumping Rate: _____	
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION								
		INITIAL		FINAL		Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole							
		Depth	Time	Depth	Time	Volume Per Foot: _____		Standing Water Column: _____ feet					
		FT BTOC	(24-Hour)	FT BTOC	(24-Hour)			1 Well Volume: _____ Gallons 3 Well Volumes: _____ Gallons					
LNAPL								5 Well Volumes: _____ Gallons 10 Well Volumes: _____ Gallons					
Groundwater		<u>51.58</u>	<u>0831</u>	<u>51.58</u>	<u>0913</u>			Total Volumes Produced: _____ Gallons					
DNAPL								Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Casing Base													
Water Level Serial #: _____						Water Quality Probe Type and Serial #: _____							
WATER QUALITY INDICATOR PARAMETERS													
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity		
initial	<u>0843</u>		<u>51.58</u>	<u>0.00</u>									
purge	<u>0846</u>		<u>51.58</u>	<u>0.00</u>	<u>17.56</u>	<u>7.04</u>	<u>952.47</u>	<u>3.67</u>	<u>0.64</u>	<u>246.1</u>	<u>CLEAR</u>		
	<u>0849</u>		<u>51.58</u>	<u>0.00</u>	<u>17.62</u>	<u>7.08</u>	<u>587.69</u>	<u>3.21</u>	<u>0.19</u>	<u>242.5</u>			
	<u>0852</u>		<u>51.58</u>	<u>0.00</u>	<u>17.62</u>	<u>7.15</u>	<u>545.35</u>	<u>3.12</u>	<u>1.09</u>	<u>237.3</u>			
	<u>0855</u>		<u>51.58</u>	<u>0.00</u>	<u>17.94</u>	<u>7.19</u>	<u>413.39</u>	<u>3.08</u>	<u>1.07</u>	<u>233.5</u>			
	<u>0858</u>		<u>51.58</u>	<u>0.00</u>	<u>18.03</u>	<u>7.22</u>	<u>441.05</u>	<u>3.03</u>	<u>0.53</u>	<u>230.4</u>			
	<u>0901</u>		<u>51.58</u>	<u>0.00</u>	<u>18.05</u>	<u>7.23</u>	<u>435.64</u>	<u>3.01</u>	<u>0.50</u>	<u>228.1</u>			
	<u>0904</u>		<u>51.58</u>	<u>0.00</u>	<u>18.30</u>	<u>7.23</u>	<u>450.28</u>	<u>2.99</u>	<u>0.54</u>	<u>227.0</u>			
FLOW ~ 375 mL/min													

FORGET TO START

1 OF 2



### WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION															
Site: <u>HEN POWER PLANT</u>						Client: _____									
Project Number: _____				Task #: _____				Start Date: <u>11-20-23</u>				Time: <u>0828</u>			
Field Personnel: <u>RCT</u>				Finish Date: <u>11-20-23</u>				Time: <u>0935</u>							
WELL INFORMATION						EVENT TYPE									
Well ID: <u>46</u>						<input type="checkbox"/> Well Development <input type="checkbox"/> Well Volume Approach Sampling <input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling <input type="checkbox"/> Other (Specify): _____									
Casing ID: _____ inches															
WATER QUALITY INDICATOR PARAMETERS (continued)															
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity				
PURGE	0907		51.58	0.00	18.08	7.25	433.23	2.98	0.00	224.7	CLEAR				
↓	0910		51.58	0.00	18.14	7.26	440.23	2.96	0.12	222.7	↓				
SAMPLE	0913	~3.5	51.58	0.00	18.16	7.27	442.66	2.95	0.24	221.0	↓				
<div style="font-size: 2em; font-weight: bold; opacity: 0.5;">                         [Signature]                          11-20-23                     </div>															
NOTES (continued)								ABBREVIATIONS							
								Cond - Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured				ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celsius			

2012

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN POWER PLANT</u>				Client: <u>VISTRA</u>							
Project Number: _____				Task #: _____				Start Date: <u>11-20-23</u>			
Field Personnel: <u>KLT</u>				Finish Date: <u>11-20-23</u>				Time: <u>09:39</u>			
Time: <u>10:41</u>											
WELL INFORMATION			EVENT TYPE			PURGE INFORMATION					
Well ID: <u>52</u>			<input type="checkbox"/> Well Development			Purge Method: <input type="checkbox"/> Bailer <input checked="" type="checkbox"/> Pump					
Casing ID: _____ Inches			<input checked="" type="checkbox"/> Low-Flow / Low-Stress Sampling			Bailer Type: n/a					
Screen Interval: _____			<input type="checkbox"/> Well Volume Approach Sampling			Pump Type and Serial #: <u>RED BLADDER</u>					
Borehole Diameter: _____ Inches			<input type="checkbox"/> Other (Specify below)			Tube/Pump Intake Depth: _____					
Filter Pack Interval: _____						Stabilized Pumping Rate: _____					
DEPTH MEASUREMENTS					VOLUME CALCULATION AND PRODUCTION INFORMATION						
INITIAL		FINAL			Volume Calculation Type: <input type="checkbox"/> Well Casing <input type="checkbox"/> Borehole						
Depth	Time	Depth	Time	Volume Per Foot: _____ feet							
FT BTOC	(24-Hour)	FT BTOC	(24-Hour)	Standing Water Column: _____							
LNAPL				1 Well Volume: _____ Gallons 3 Well Volumes: _____ Gallons							
Groundwater	<u>53.93</u>	<u>09:42</u>	<u>54.01</u>	<u>10:18</u>	5 Well Volumes: _____ Gallons 10 Well Volumes: _____ Gallons						
DNAPL				Total Volumes Produced: _____ Gallons							
Casing Base				Well Purged Dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							
Water Level Serial #: _____					Water Quality Probe Type and Serial # _____						
WATER QUALITY INDICATOR PARAMETERS											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
initial	<u>09:51</u>		<u>53.97</u>	<u>0.04</u>	<u>17.86</u>	<u>7.09</u>	<u>1,111.9</u>	<u>2.52</u>	<u>21.8</u>	<u>209.5</u>	<u>CLEAR</u>
purge	<u>09:54</u>		<u>54.00</u>	<u>0.07</u>	<u>18.06</u>	<u>7.09</u>	<u>1,117.3</u>	<u>2.20</u>	<u>5.34</u>	<u>208.5</u>	
	<u>09:57</u>		<u>54.00</u>	<u>0.07</u>	<u>18.20</u>	<u>7.07</u>	<u>1,124.7</u>	<u>2.21</u>	<u>4.30</u>	<u>207.7</u>	
	<u>10:00</u>		<u>54.01</u>	<u>0.08</u>	<u>18.38</u>	<u>7.06</u>	<u>1,128.9</u>	<u>2.23</u>	<u>3.27</u>	<u>207.1</u>	
	<u>10:03</u>		<u>54.01</u>	<u>0.08</u>	<u>18.46</u>	<u>7.06</u>	<u>1,130.1</u>	<u>2.25</u>	<u>3.16</u>	<u>205.5</u>	
	<u>10:06</u>		<u>54.01</u>	<u>0.08</u>	<u>18.36</u>	<u>7.07</u>	<u>1,128.8</u>	<u>2.26</u>	<u>2.25</u>	<u>204.2</u>	
	<u>10:09</u>		<u>54.01</u>	<u>0.08</u>	<u>18.50</u>	<u>7.06</u>	<u>1,129.5</u>	<u>2.26</u>	<u>2.01</u>	<u>203.2</u>	
	<u>10:12</u>		<u>54.01</u>	<u>0.08</u>	<u>18.39</u>	<u>7.08</u>	<u>1,128.7</u>	<u>2.27</u>	<u>1.58</u>	<u>201.0</u>	
FLOW ~ 375 ML/MIN											

1 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION											
Site: <u>HENNEPIN POWER PLANT</u>						Client: <u>VISTRA</u>					
Project Number: _____				Task #: _____		Start Date: <u>11-20-23</u>				Time: <u>09:39</u>	
Field Personnel: <u>KL</u>				Finish Date: <u>11-20-23</u>				Time: <u>10:41</u>			
WELL INFORMATION				EVENT TYPE							
Well ID: <u>52</u>		Casing ID: _____ inches		<input type="checkbox"/> Well Development		<input checked="" type="checkbox"/> Low-Flow / Low Stress Sampling		<input type="checkbox"/> Other (Specify): _____			
<input type="checkbox"/> Well Volume Approach Sampling											
WATER QUALITY INDICATOR PARAMETERS (continued)											
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
<u>PURGE</u>	<u>10:15</u>		<u>54.01</u>	<u>0.08</u>	<u>18.43</u>	<u>7.09</u>	<u>1,129.2</u>	<u>2.28</u>	<u>1.33</u>	<u>199.5</u>	<u>CLEAR</u>
<u>SAMPLE</u>	<u>10:18</u>	<u>~4</u>	<u>54.01</u>	<u>0.08</u>	<u>18.47</u>	<u>7.09</u>	<u>1,129.6</u>	<u>2.30</u>	<u>1.01</u>	<u>198.1</u>	<u>↓</u>
<p><i>[Handwritten signature]</i>  <u>11-20-23</u></p>											
NOTES (continued)							ABBREVIATIONS				
<u>SECONDARY pH @ 10:18 = 7.19</u>							Cond - Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured				
							ORP - Oxidation Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature °C - Degrees Celsius				

2 of 2

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**SAR-3: Episodic Depth to Groundwater Measurements**  
 All DTWs on SAR-3 must be collected within 24 hours.  
 Plant: HEN  
 Event: HEN-23Q4 Rev 0

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
02	HEN_02	11-13-23	12:11	45.08		KLT
03R	HEN_03R	11-13-23	10:47	38.50		KLT
04R	HEN_04R	11-13-23	11:55	39.54		KLT
05R	HEN_05R	11-13-23	11:09	41.37		KLT
05DR	HEN_05&DR	11-13-23	11:08	41.44		KLT
06	HEN_06	11-13-23	10:30	22.82		KLT
07	HEN_07	11-13-23	17:00	68.54		KLT
08	HEN_08	11-13-23	07:50	54.02		KLT
08D	HEN_08&D	11-13-23	07:38	54.23		KLT
10	HEN_10	11-13-23	09:35	50.80		KLT
11	HEN_11	11-13-23	09:37	51.00		KLT
12	HEN_12	11-13-23	08:37	52.26		KLT
13	HEN_13	11-13-23	08:40	51.25		KLT
15	HEN_15	11-13-23	08:15	49.07		KLT
16	HEN_16	11-13-23	08:01	54.07		KLT
17	HEN_17	11-13-23	12:05	56.23		KLT
18S	HEN_18#S	11-13-23	10:59	40.85		KLT
18D	HEN_18&D	11-13-23	10:57	40.95		KLT
19S	HEN_19#S	11-13-23	NM	NM	CASING BROKEN	KLT
19D	HEN_19&D	11-13-23	11:33	40.21		KLT

11/11



**SAR-3: Episodic Depth to Groundwater Measurements**  
**All DTWs on SAR-3 must be collected within 24 hours.**  
 Plant: HEN  
 Event: HEN-23Q4 Rev 0

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Comments	Initials
21R	HEN_21R	11-13-23	14:25	5.77		KLT
22	HEN_22	11-13-23	13:32	18.93		KLT
22D	HEN_22&D	11-13-23	13:40	22.10		KLT
23	HEN_23	11-13-23	13:55	17.69		KLT
25	HEN_25	11-13-23	15:42	15.84		KLT
26	HEN_26	11-13-23	15:46	15.91		KLT
27	HEN_27	11-13-23	14:56	3.91		KLT
30	HEN_30	11-13-23	14:48	6.44		KLT
31	HEN_31	11-13-23	14:50	7.34		KLT
32	HEN_32	11-13-23	15:10	4.79		KLT
33	HEN_33	11-13-23	15:22	3.58		KLT
34	HEN_34	11-13-23	14:38	8.15		KLT
35	HEN_35	11-13-23	14:15	8.39		KLT
36	HEN_36	11-13-23	15:56	15.27		KLT
40S	HEN_40#S	11-13-23	11:28	40.61		KLT
45S	HEN_45#S	11-13-23	10:35	21.45		KLT
46	HEN_46	11-13-23	08:35	51.40		KLT
47	HEN_47	11-13-23	09:08	55.72		KLT
48	HEN_48	11-13-23	NM	NM	CASING LIKELY COMPROMISED	KLT MUD
49	HEN_49	11-13-23	13:44	21.49	WORK BY HORNETS	KLT
50	HEN_50	11-13-23	13:24	18.24		KLT
51	HEN_51	11-13-23	14:00	18.59		KLT
52	HEN_52	11-13-23	09:12	53.88		KLT
54	HEN_54	11-13-23	08:52	53.31		KLT
55	HEN_55	11-13-23	08:46	51.26		KLT
XPW01	HEN_XPW01_pore	11-13-23	16:36	11.43		KLT
XPW02	HEN_XPW02_pore	11-13-23	16:28	15.61		KLT
XPW03	HEN_XPW03_pore	11-13-23	16:16	7.14		KLT
XSG01	HEN_XSG01	11-13-23	16:18	10.28		KLT
SG02	HEN_YSG_ILRIVER					
		11-13-23	09:26	55.68	U:10/03/23 JRK	KLT

@ 14:38 →

53



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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Brian Voelker  
Vistra Energy Corp  
133 S 4th, Suite 206  
Springfield, Illinois 62701

Generated 12/27/23 18:05:46

## JOB DESCRIPTION

HEN-23Q4  
HEN\_845\_803\_RAD

## JOB NUMBER

500-242591-18

# Eurofins Chicago

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



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12/27/23 18:05:46

Authorized for release by  
Dirk Nelson, Project Management Assistant II  
[Dirk.Nelson@et.eurofinsus.com](mailto:Dirk.Nelson@et.eurofinsus.com)  
Designee for  
Donna Campbell, Manager of Project Management  
[Donna.Campbell@et.eurofinsus.com](mailto:Donna.Campbell@et.eurofinsus.com)  
(217)519-2114



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# Case Narrative

Client: Vistra Energy Corp  
Project: HEN-23Q4

**Job ID: 500-242591-18**

**Eurofins Chicago**

## Job Narrative 500-242591-18

### Receipt

The samples were received on 11/15/2023 11:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 15 coolers at receipt time were 1.8° C, 2.3° C, 2.4° C, 3.0° C, 3.2° C, 4.2° C, 4.4° C, 4.6° C, 4.6° C, 4.9° C, 4.9° C, 5.0° C, 5.0° C, 5.6° C and 5.7° C.

### RAD

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



# Detection Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

**Client Sample ID: HEN\_54** **Lab Sample ID: 500-242591-22**

No Detections.

**Client Sample ID: HEN\_47** **Lab Sample ID: 500-242591-23**

No Detections.

**Client Sample ID: HEN\_12** **Lab Sample ID: 500-242591-24**

No Detections.

**Client Sample ID: HEN\_13** **Lab Sample ID: 500-242591-25**

No Detections.

**Client Sample ID: HEN\_08&D** **Lab Sample ID: 500-242591-26**

No Detections.

**Client Sample ID: HEN\_08** **Lab Sample ID: 500-242591-27**

No Detections.

**Client Sample ID: HEN\_08\_FD** **Lab Sample ID: 500-242591-28**

No Detections.

**Client Sample ID: HEN\_17** **Lab Sample ID: 500-242591-30**

No Detections.

**Client Sample ID: HEN\_16** **Lab Sample ID: 500-242591-31**

No Detections.

**Client Sample ID: HEN\_46** **Lab Sample ID: 500-242591-35**

No Detections.

**Client Sample ID: HEN\_52** **Lab Sample ID: 500-242591-37**

No Detections.

**Client Sample ID: HEN\_07** **Lab Sample ID: 500-242591-38**

No Detections.

This Detection Summary does not include radiochemical test results.

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# Method Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228 Pos	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

#### Protocol References:

EPA = US Environmental Protection Agency

None = None

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

#### Laboratory References:

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

# Sample Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-242591-22	HEN_54	Water	11/17/23 09:02	11/17/23 18:00
500-242591-23	HEN_47	Water	11/17/23 09:33	11/17/23 18:00
500-242591-24	HEN_12	Water	11/17/23 10:19	11/17/23 18:00
500-242591-25	HEN_13	Water	11/17/23 10:21	11/17/23 18:00
500-242591-26	HEN_08&D	Water	11/17/23 12:31	11/17/23 18:00
500-242591-27	HEN_08	Water	11/17/23 12:32	11/17/23 18:00
500-242591-28	HEN_08_FD	Water	11/17/23 12:37	11/17/23 18:00
500-242591-30	HEN_17	Water	11/17/23 14:17	11/17/23 18:00
500-242591-31	HEN_16	Water	11/17/23 14:29	11/17/23 18:00
500-242591-35	HEN_46	Water	11/20/23 09:13	11/21/23 08:06
500-242591-37	HEN_52	Water	11/20/23 10:18	11/21/23 08:06
500-242591-38	HEN_07	Water	11/20/23 13:12	11/21/23 08:06

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# Client Sample Results

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_54**  
**Date Collected: 11/17/23 09:02**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-22**  
**Matrix: Water**

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.577		0.262	0.267	1.00	0.306	pCi/L	11/22/23 09:46	12/21/23 19:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.1		30 - 110					11/22/23 09:46	12/21/23 19:28	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.734		0.403	0.409	1.00	0.569	pCi/L	11/22/23 09:53	12/21/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.1		30 - 110					11/22/23 09:53	12/21/23 11:57	1
Y Carrier	73.3		30 - 110					11/22/23 09:53	12/21/23 11:57	1

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.31		0.481	0.488	5.00	0.569	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_47**  
**Date Collected: 11/17/23 09:33**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-23**  
**Matrix: Water**

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.486		0.249	0.253	1.00	0.311	pCi/L	11/22/23 09:46	12/21/23 19:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		30 - 110					11/22/23 09:46	12/21/23 19:28	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.655		0.395	0.399	1.00	0.574	pCi/L	11/22/23 09:53	12/21/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.2		30 - 110					11/22/23 09:53	12/21/23 11:57	1
Y Carrier	72.5		30 - 110					11/22/23 09:53	12/21/23 11:57	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.14		0.467	0.472	5.00	0.574	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_12**  
**Date Collected: 11/17/23 10:19**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-24**  
**Matrix: Water**

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.315	U	0.227	0.228	1.00	0.325	pCi/L	11/22/23 09:46	12/21/23 19:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.1		30 - 110					11/22/23 09:46	12/21/23 19:27	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.837		0.442	0.448	1.00	0.636	pCi/L	11/22/23 09:53	12/21/23 11:57	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.1		30 - 110					11/22/23 09:53	12/21/23 11:57	1
Y Carrier	79.6		30 - 110					11/22/23 09:53	12/21/23 11:57	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.15		0.497	0.503	5.00	0.636	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_13**  
**Date Collected: 11/17/23 10:21**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-25**  
**Matrix: Water**

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.464		0.246	0.249	1.00	0.312	pCi/L	11/22/23 09:46	12/21/23 19:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.7		30 - 110					11/22/23 09:46	12/21/23 19:27	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0554	U	0.326	0.326	1.00	0.608	pCi/L	11/22/23 09:53	12/21/23 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.7		30 - 110					11/22/23 09:53	12/21/23 11:58	1
Y Carrier	85.6		30 - 110					11/22/23 09:53	12/21/23 11:58	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.464	U	0.408	0.410	5.00	0.608	pCi/L		12/22/23 17:50	1



# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_08&D**

**Lab Sample ID: 500-242591-26**

Date Collected: 11/17/23 12:31

Matrix: Water

Date Received: 11/17/23 18:00

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.632		0.261	0.267	1.00	0.279	pCi/L	11/22/23 09:46	12/21/23 19:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		30 - 110					11/22/23 09:46	12/21/23 19:27	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.492	U	0.369	0.372	1.00	0.562	pCi/L	11/22/23 09:53	12/21/23 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.6		30 - 110					11/22/23 09:53	12/21/23 11:58	1
Y Carrier	73.3		30 - 110					11/22/23 09:53	12/21/23 11:58	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.12		0.452	0.458	5.00	0.562	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_08**  
**Date Collected: 11/17/23 12:32**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-27**  
**Matrix: Water**

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.373		0.247	0.250	1.00	0.356	pCi/L	11/22/23 09:46	12/21/23 20:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.7		30 - 110					11/22/23 09:46	12/21/23 20:51	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.654		0.378	0.382	1.00	0.543	pCi/L	11/22/23 09:53	12/21/23 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.7		30 - 110					11/22/23 09:53	12/21/23 11:58	1
Y Carrier	77.4		30 - 110					11/22/23 09:53	12/21/23 11:58	1

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.03		0.452	0.457	5.00	0.543	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_08\_FD**

**Lab Sample ID: 500-242591-28**

Date Collected: 11/17/23 12:37

Matrix: Water

Date Received: 11/17/23 18:00

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.238	U	0.190	0.191	1.00	0.276	pCi/L	11/22/23 09:46	12/21/23 20:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		30 - 110					11/22/23 09:46	12/21/23 20:51	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.631		0.415	0.420	1.00	0.621	pCi/L	11/22/23 09:53	12/21/23 11:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		30 - 110					11/22/23 09:53	12/21/23 11:58	1
Y Carrier	75.1		30 - 110					11/22/23 09:53	12/21/23 11:58	1

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.869		0.456	0.461	5.00	0.621	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_17**  
**Date Collected: 11/17/23 14:17**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-30**  
**Matrix: Water**

**Method: EPA 903.0 - Radium-226 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.254	U	0.196	0.198	1.00	0.282	pCi/L	11/22/23 09:46	12/21/23 20:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		30 - 110					11/22/23 09:46	12/21/23 20:51	1

**Method: EPA 904.0 - Radium-228 (GFPC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.505	U	0.357	0.360	1.00	0.537	pCi/L	11/22/23 09:53	12/21/23 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		30 - 110					11/22/23 09:53	12/21/23 11:59	1
Y Carrier	78.5		30 - 110					11/22/23 09:53	12/21/23 11:59	1

**Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
<b>Radium 226 and 228</b>	<b>0.759</b>		0.407	0.411	5.00	0.537	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_16**  
Date Collected: 11/17/23 14:29  
Date Received: 11/17/23 18:00

**Lab Sample ID: 500-242591-31**  
Matrix: Water

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.450		0.238	0.241	1.00	0.288	pCi/L	11/22/23 09:46	12/21/23 20:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		30 - 110					11/22/23 09:46	12/21/23 20:51	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.560		0.368	0.372	1.00	0.543	pCi/L	11/22/23 09:53	12/21/23 11:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.2		30 - 110					11/22/23 09:53	12/21/23 11:59	1
Y Carrier	80.0		30 - 110					11/22/23 09:53	12/21/23 11:59	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	1.01		0.438	0.443	5.00	0.543	pCi/L		12/22/23 17:50	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_46**  
**Date Collected: 11/20/23 09:13**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-35**  
**Matrix: Water**

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0559	U	0.0967	0.0968	1.00	0.235	pCi/L	11/27/23 10:49	12/22/23 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		30 - 110					11/27/23 10:49	12/22/23 14:27	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.279	U	0.330	0.331	1.00	0.544	pCi/L	11/27/23 10:59	12/19/23 16:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	91.8		30 - 110					11/27/23 10:59	12/19/23 16:28	1
Y Carrier	81.1		30 - 110					11/27/23 10:59	12/19/23 16:28	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.279	U	0.344	0.345	5.00	0.544	pCi/L		12/27/23 14:29	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_52**  
**Date Collected: 11/20/23 10:18**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-37**  
**Matrix: Water**

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.151	U	0.142	0.143	1.00	0.218	pCi/L	11/27/23 10:49	12/22/23 14:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		30 - 110					11/27/23 10:49	12/22/23 14:27	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.404	U	0.355	0.357	1.00	0.558	pCi/L	11/27/23 10:59	12/19/23 16:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.2		30 - 110					11/27/23 10:59	12/19/23 16:28	1
Y Carrier	76.3		30 - 110					11/27/23 10:59	12/19/23 16:28	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.555	U	0.382	0.385	5.00	0.558	pCi/L		12/27/23 14:29	1

# Client Sample Results

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

**Client Sample ID: HEN\_07**  
**Date Collected: 11/20/23 13:12**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-38**  
**Matrix: Water**

## Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.409		0.222	0.225	1.00	0.292	pCi/L	11/27/23 10:49	12/22/23 14:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		30 - 110					11/27/23 10:49	12/22/23 14:28	1

## Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.568	U	0.431	0.434	1.00	0.667	pCi/L	11/27/23 10:59	12/19/23 16:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		30 - 110					11/27/23 10:59	12/19/23 16:28	1
Y Carrier	77.4		30 - 110					11/27/23 10:59	12/19/23 16:28	1

## Method: TAL-STL Ra226\_Ra228 Pos - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium 226 and 228	0.978		0.485	0.489	5.00	0.667	pCi/L		12/27/23 14:29	1



# Definitions/Glossary

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

## Rad

### Prep Batch: 637928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	PrecSep-21	
500-242591-23	HEN_47	Total/NA	Water	PrecSep-21	
500-242591-24	HEN_12	Total/NA	Water	PrecSep-21	
500-242591-25	HEN_13	Total/NA	Water	PrecSep-21	
500-242591-26	HEN_08&D	Total/NA	Water	PrecSep-21	
500-242591-27	HEN_08	Total/NA	Water	PrecSep-21	
500-242591-28	HEN_08_FD	Total/NA	Water	PrecSep-21	
500-242591-30	HEN_17	Total/NA	Water	PrecSep-21	
500-242591-31	HEN_16	Total/NA	Water	PrecSep-21	
MB 160-637928/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-637928/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 637931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-22	HEN_54	Total/NA	Water	PrecSep_0	
500-242591-23	HEN_47	Total/NA	Water	PrecSep_0	
500-242591-24	HEN_12	Total/NA	Water	PrecSep_0	
500-242591-25	HEN_13	Total/NA	Water	PrecSep_0	
500-242591-26	HEN_08&D	Total/NA	Water	PrecSep_0	
500-242591-27	HEN_08	Total/NA	Water	PrecSep_0	
500-242591-28	HEN_08_FD	Total/NA	Water	PrecSep_0	
500-242591-30	HEN_17	Total/NA	Water	PrecSep_0	
500-242591-31	HEN_16	Total/NA	Water	PrecSep_0	
MB 160-637931/1-A	Method Blank	Total/NA	Water	PrecSep_0	

### Prep Batch: 638356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-35	HEN_46	Total/NA	Water	PrecSep-21	
500-242591-37	HEN_52	Total/NA	Water	PrecSep-21	
500-242591-38	HEN_07	Total/NA	Water	PrecSep-21	
MB 160-638356/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-638356/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

### Prep Batch: 638358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-35	HEN_46	Total/NA	Water	PrecSep_0	
500-242591-37	HEN_52	Total/NA	Water	PrecSep_0	
500-242591-38	HEN_07	Total/NA	Water	PrecSep_0	
MB 160-638358/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-638358/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

# QC Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 HEN-23Q4  
 SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

## Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-637928/1-A  
 Matrix: Water  
 Analysis Batch: 641696

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 637928

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03703	U	0.146	0.146	1.00	0.283	pCi/L	11/22/23 09:46	12/21/23 19:21	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	101		30 - 110		11/22/23 09:46	12/21/23 19:21	1			

Lab Sample ID: LCS 160-637928/2-A  
 Matrix: Water  
 Analysis Batch: 641696

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 637928

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual	Uncert. (2σ+/-)					
Radium-226	11.3	9.928		1.26	1.00	0.249	pCi/L	88	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	98.2		30 - 110						

Lab Sample ID: MB 160-638356/1-A  
 Matrix: Water  
 Analysis Batch: 641880

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 638356

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.06469	U	0.132	0.133	1.00	0.237	pCi/L	11/27/23 10:49	12/22/23 14:25	1
Carrier	MB %Yield	MB Qualifier	Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	102		30 - 110		11/27/23 10:49	12/22/23 14:25	1			

Lab Sample ID: LCS 160-638356/2-A  
 Matrix: Water  
 Analysis Batch: 641880

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 638356

Analyte	Spike Added	LCS	LCS	Total	RL	MDC	Unit	%Rec	%Rec Limits
		Result	Qual	Uncert. (2σ+/-)					
Radium-226	11.3	13.65		1.56	1.00	0.278	pCi/L	120	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	96.4		30 - 110						

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

Lab Sample ID: MB 160-637931/1-A  
 Matrix: Water  
 Analysis Batch: 641696

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 637931

Analyte	MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	MB Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-228	0.5670		0.346	0.350	1.00	0.505	pCi/L	11/22/23 09:53	12/21/23 11:55	1

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# QC Sample Results

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 HEN-845-002  
 SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

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

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	101		30 - 110	11/22/23 09:53	12/21/23 11:55	1
Y Carrier	80.7		30 - 110	11/22/23 09:53	12/21/23 11:55	1

Lab Sample ID: MB 160-638358/1-A  
 Matrix: Water  
 Analysis Batch: 641298

Client Sample ID: Method Blank  
 Prep Type: Total/NA  
 Prep Batch: 638358

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4002	U	0.311	0.314	1.00	0.480	pCi/L	11/27/23 10:59	12/19/23 16:26	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	102		30 - 110	11/27/23 10:59	12/19/23 16:26	1
Y Carrier	85.6		30 - 110	11/27/23 10:59	12/19/23 16:26	1

Lab Sample ID: LCS 160-638358/2-A  
 Matrix: Water  
 Analysis Batch: 641298

Client Sample ID: Lab Control Sample  
 Prep Type: Total/NA  
 Prep Batch: 638358

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.63	8.197		1.16	1.00	0.478	pCi/L	107	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	96.4		30 - 110
Y Carrier	83.4		30 - 110

# Lab Chronicle

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_54**  
**Date Collected: 11/17/23 09:02**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-22**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641812	FLC	EET SL	12/21/23 19:28
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:57
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

**Client Sample ID: HEN\_47**  
**Date Collected: 11/17/23 09:33**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-23**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641812	FLC	EET SL	12/21/23 19:28
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:57
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

**Client Sample ID: HEN\_12**  
**Date Collected: 11/17/23 10:19**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-24**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641812	FLC	EET SL	12/21/23 19:27
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:57
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

**Client Sample ID: HEN\_13**  
**Date Collected: 11/17/23 10:21**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-25**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641812	FLC	EET SL	12/21/23 19:27
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:58
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

# Lab Chronicle

ATTACHMENT B.  
845 QUARTERLY REPORT - QUARTER 4, 2023  
HENNEPIN POWER PLANT, EAST ASH POND  
Job ID: 500-242591-18  
SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

## Client Sample ID: HEN\_08&D

Date Collected: 11/17/23 12:31

Date Received: 11/17/23 18:00

## Lab Sample ID: 500-242591-26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641812	FLC	EET SL	12/21/23 19:27
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:58
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

## Client Sample ID: HEN\_08

Date Collected: 11/17/23 12:32

Date Received: 11/17/23 18:00

## Lab Sample ID: 500-242591-27

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641812	FLC	EET SL	12/21/23 20:51
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:58
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

## Client Sample ID: HEN\_08\_FD

Date Collected: 11/17/23 12:37

Date Received: 11/17/23 18:00

## Lab Sample ID: 500-242591-28

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641696	FLC	EET SL	12/21/23 20:51
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:58
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

## Client Sample ID: HEN\_17

Date Collected: 11/17/23 14:17

Date Received: 11/17/23 18:00

## Lab Sample ID: 500-242591-30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641696	FLC	EET SL	12/21/23 20:51
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:59
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

# Lab Chronicle

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

**Client Sample ID: HEN\_16**  
**Date Collected: 11/17/23 14:29**  
**Date Received: 11/17/23 18:00**

**Lab Sample ID: 500-242591-31**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637928	KAC	EET SL	11/22/23 09:46
Total/NA	Analysis	903.0		1	641696	FLC	EET SL	12/21/23 20:51
Total/NA	Prep	PrecSep_0			637931	KAC	EET SL	11/22/23 09:53
Total/NA	Analysis	904.0		1	641696	FLC	EET SL	12/21/23 11:59
Total/NA	Analysis	Ra226_Ra228 Pos		1	641923	EMH	EET SL	12/22/23 17:50

**Client Sample ID: HEN\_46**  
**Date Collected: 11/20/23 09:13**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-35**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			638356	KAC	EET SL	11/27/23 10:49
Total/NA	Analysis	903.0		1	641880	SCB	EET SL	12/22/23 14:27
Total/NA	Prep	PrecSep_0			638358	KAC	EET SL	11/27/23 10:59
Total/NA	Analysis	904.0		1	641298	FLC	EET SL	12/19/23 16:28
Total/NA	Analysis	Ra226_Ra228 Pos		1	642175	EMH	EET SL	12/27/23 14:29

**Client Sample ID: HEN\_52**  
**Date Collected: 11/20/23 10:18**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-37**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			638356	KAC	EET SL	11/27/23 10:49
Total/NA	Analysis	903.0		1	641880	SCB	EET SL	12/22/23 14:27
Total/NA	Prep	PrecSep_0			638358	KAC	EET SL	11/27/23 10:59
Total/NA	Analysis	904.0		1	641298	FLC	EET SL	12/19/23 16:28
Total/NA	Analysis	Ra226_Ra228 Pos		1	642175	EMH	EET SL	12/27/23 14:29

**Client Sample ID: HEN\_07**  
**Date Collected: 11/20/23 13:12**  
**Date Received: 11/21/23 08:06**

**Lab Sample ID: 500-242591-38**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			638356	KAC	EET SL	11/27/23 10:49
Total/NA	Analysis	903.0		1	641880	SCB	EET SL	12/22/23 14:28
Total/NA	Prep	PrecSep_0			638358	KAC	EET SL	11/27/23 10:59
Total/NA	Analysis	904.0		1	641298	FLC	EET SL	12/19/23 16:28
Total/NA	Analysis	Ra226_Ra228 Pos		1	642175	EMH	EET SL	12/27/23 14:29

**Laboratory References:**

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

# Accreditation/Certification Summary

ATTACHMENT B.

15 QUARTERLY REPORT - QUARTER 4, 2023

HENNEPIN POWER PLANT, EAST ASH POND

Job ID: 500-242591-18

SDG: HEN\_845\_803\_RAD

Client: Vistra Energy Corp  
Project/Site: HEN-23Q4

## Laboratory: Eurofins St. Louis

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

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	200023	11-30-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

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

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HEN-845-803  
HEN-028  
500-242591

**CHAIN-OF-CUSTODY / Analytical Request Document**

The Chain-of-Custody is a LEGAL DOCUMENT All relevant fields must be completed accurately

Page 1 of 1

<b>Section A</b> Required Client Information		<b>Section B</b> Required Project Information		<b>Section C</b> Invoice Information		<b>REGULATORY AGENCY</b>		
Company: <b>Vistra Corp</b>		Report To: <b>Brian Voelker</b>		Attention: <b>Jason Stuckey</b>		NPDES    GROUND WATER    DRINKING WATER		
Address: <b>133 S 4th, Suite 206</b>		Copy To: <b>Jason Stuckey</b>		Company Name: <b>Vistra Corp</b>		UST    RCRA    OTHER		
Springfield, IL 62701				Address: <b>see Section A</b>		Site Location		
Email To: <b>Brian.Voelker@VistraCorp.com</b>		Purchase Order No.		Quote Reference:		STATE: <b>IL</b>		
Phone: (217) 753-8911 Fax.		Project Name: <b>23 Q4 GW SAMPLING</b>		Project Manager: <b>NIKKI PAGANO</b>				
Requested Due Date/TAT: <b>10 day</b>		Project Number: <b>50022357</b>		Profile #:				

ITEM #	Section D Required Client Information	Valid Matrix Codes MATRIX CODE	DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Requested Analysis Filtered (Y/N)											Residual Chlorine (Y/N)	Project No./ Lab I.D.							
							Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Methanol	Other	Analysis Test ↓	HEN_257_802	HEN_257_803			HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_G	HEN_000_RAD
1	<b>HEN_46</b>		<b>11-20-23</b>	<b>09:13</b>		<b>03</b>																				
2																										
3																										
4																										
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ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
<b>HEN-23Q4 Rev 0</b>	<i>Kristen Theesfeld</i> <b>RAMBOLL</b>	<b>11-21-23</b>	<b>0800</b>	<i>Jason Stuckey</i>	<b>11/21/23</b>	<b>0806</b>	

DROP@ LAB

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER. <b>KRISTEN THEESFELD</b>					
SIGNATURE of SAMPLER. <i>K Theesfeld</i>	DATE Signed (MM/DD/YY) <b>11-20-23</b>				

QC: TTD





**Eurofins Chicago**  
 2417 Bond Street  
 University Park, IL 60484  
 Phone: 708-534-5200 Fax: 708-534-5211

# Chain of Custody Record



Environment Testing

<b>Client Information (Sub Contract Lab)</b>		Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181630.1										
Client Contact: Donna Campbell		E-Mail: Donna.Campbell@eurofins.com	State of Origin: Illinois	Page: Page 1 of 1										
Shipping/Receiving		Company: TestAmerica Laboratories, Inc.	Accreditations Required (See note): NELAP - Illinois	Job #: 500-242591-1										
Address: 13715 Rider Trail North, Earth City, MO, 63045		Due Date Requested: 11/30/2023	Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDTA Other:											
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days):	Analysis Requested: Ra226_228GFPC_P/AJ 904.0/PreSep_0 AJ 903.0/PreSep_21 AQ Ra226_228GFPC_P/AQ 903.0/PreSep_21 BB 904.0/PreSep_0 BB Ra226_228GFPC_P/BB											
Email:		PO #:	Total Number of Containers											
WO #:		Project #:	Special Instructions/Note:											
Project Name: HEN-2304		SSOW#:												
Site:														
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Weaver, Sealed, Overseal, Oil)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 AJ	904.0/PreSep_0 AJ	903.0/PreSep_21 AQ	904.0/PreSep_0 AQ	Ra226_228GFPC_P/AQ	903.0/PreSep_21 BB	904.0/PreSep_0 BB	Ra226_228GFPC_P/BB
HEN_03R (500-242591-14)	11/16/23	09:25 Central	Water	Water	X	X	X	X	X	X	X	X	X	X
HEN_03R_MS (500-242591-14MS)	11/16/23	09:25 Central	MS	Water	X	X	X	X	X	X	X	X	X	X
HEN_03R_MSD (500-242591-14MSD)	11/16/23	09:25 Central	MSD	Water	X	X	X	X	X	X	X	X	X	X
HEN_18#S (500-242591-15)	11/16/23	11:55 Central	Water	Water	X	X	X	X	X	X	X	X	X	X
HEN_18#D (500-242591-16)	11/16/23	11:55 Central	Water	Water	X	X	X	X	X	X	X	X	X	X

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) \_\_\_\_\_ Primary Deliverable Rank: 2  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: 11/23/23 15:20 Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_  
 Δ Yes Δ No

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Received by: *M. Pinette* Date/Time: NOV 20 2023 09:20 Company  
 Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company  
 Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_

Special Instructions/QC Requirements:  
 Return To Client  
 Disposal By Lab  
 Archive For \_\_\_\_\_ Months

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**Eurofins Chicago**

2417 Bond Street  
University Park, IL 60484  
Phone: 708-534-5200 Fax: 708-534-5211

**Chain of Custody Record**



Environment Testing

Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)		COC No						
Shipping/Receiving		Phone:	Campbell, Donna L	State of Origin		500-181722.1						
Company		E-Mail:	Donna.Campbell@eurofins.com	Illinois		Page 1 of 1						
TestAmerica Laboratories, Inc.		Accreditations Required (See note)		Job #		500-242591-16						
Address		Due Date Requested:		Preservation Codes:								
13715 Rider Trail North,		11/30/2023		A - HCL		M - Hexane						
City		TAT Requested (days):		B - NaOH		N - None						
Earth City				C - Zn Acetate		O - AsNaO2						
State, Zip				D - Nitric Acid		P - Na2OAS						
MO, 63045				E - NaHSO4		Q - Na2SO3						
Phone		PO #		F - MeOH		R - Na2S2O3						
314-298-8566(Tel) 314-298-8757(Fax)		WO #		G - Amchlor		S - H2SO4						
Email		Project #		H - Ascorbic Acid		T - TSP Dodecahydrate						
		50022357		I - Ice		U - Acetone						
Site		SSOW#		J - DI Water		V - MCAA						
HEN-23Q4				K - EDTA		W - pH 4-5						
				L - EDA		Y - Trizma						
				Other:		Z - other (specify)						
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Swab, On-surface, Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PreSep_21 AL	904.0/PreSep_0 AL	Ra228_228GFPc_P/AL	Total Number of Containers	Special Instructions/Note:
HEN_54 (500-242591-22)		11/17/23	09:02 Central	Water	Water	X	X	X	X		2	
HEN_47 (500-242591-23)		11/17/23	09:33 Central	Water	Water	X	X	X	X		2	
HEN_12 (500-242591-24)		11/17/23	10:14 Central	Water	Water	X	X	X	X		2	
HEN_13 (500-242591-25)		11/17/23	10:21 Central	Water	Water	X	X	X	X		2	
HEN_08&D (500-242591-26)		11/17/23	12:31 Central	Water	Water	X	X	X	X		2	
HEN_08 (500-242591-27)		11/17/23	12:32 Central	Water	Water	X	X	X	X		2	
HEN_08_FD (500-242591-28)		11/17/23	12:37 Central	Water	Water	X	X	X	X		2	
HEN_17 (500-242591-30)		11/17/23	14:17 Central	Water	Water	X	X	X	X		2	
HEN_16 (500-242591-31)		11/17/23	14:29 Central	Water	Water	X	X	X	X		2	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago provides the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

**Possible Hazard Identification**

Unconfirmed  
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
Special Instructions/QC Requirements:  Return To Client  Disposal By Lab  Archive For  Months

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_

Relinquished by: *Sophomnie Hernandez* Date/Time: 11/20/23 13:00 Company: EEIA  
Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

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



# Chain of Custody Record



Environment Testing



<b>Client Information (Sub Contract Lab)</b>		Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact:		Phone:	Campbell, Donna L		500-181843.1
Shipping/Receiving:		E-Mail:		State of Origin:	Page:
Company:		Donna Campbell@et.eurofins.com		Illinois	Page 1 of 1
TestAmerica Laboratories, Inc.		Accreditations Required (See note):		Job #:	500-242591-2
Address:		NELAP - Illinois		<b>Preservation Codes:</b>	
13715 Rider Trail North,		Due Date Requested:		A - HCL	
City		12/18/2023		M - Hexane	
Earth City		TAT Requested (days):		N - None	
State, Zip:				O - AsNaO2	
MO, 63045				P - Na2O4S	
Phone:		PO #:		Q - Na2SO3	
314-298-8566(Tel) 314-298-8757(Fax)				R - Na2S2O3	
Email:		WO #:		S - H2SO4	
				T - TSP Dodecahydrate	
Project Name:		Project #:		U - Acetone	
HEN-23Q4		50022357		V - MCAA	
Site:		SSOW#:		W - pH 4-5	
				Y - Trizma	
				L - EDA	
				Z - other (specify)	
				Other:	

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=tissue, A=air)	Preservation Code:	Field Filtered Sample (Yes or No)		Performance (Yes or No)		Total Number of Containers	Special Instructions/Note:
						Perf. Filtered	Perf. MS/MSD	903.0/PreSep_21 BB	904.0/PreSep_0 BB		
HEN_45#S (500-242591-32)	11/20/23	09:15 Central	Water	Water	X	X	X	X	2		
HEN_45#S_FD (500-242591-33)	11/20/23	09:20 Central	Water	Water	X	X	X	X	2		
HEN_46 (500-242591-35)	11/20/23	09:13 Central	Water	Water	X	X	X	X	2		
HEN_52 (500-242591-37)	11/20/23	10:18 Central	Water	Water	X	X	X	X	2		
HEN_07 (500-242591-38)	11/20/23	13:12 Central	Water	Water	X	X	X	X	2		
HEN_FB (500-242591-39)	11/20/23	13:20 Central	Water	Water	X	X	X	X	2		

Note: Since laboratory accreditations are subject to change, Eurofins Chicago will place the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

**Possible Hazard Identification**  
 Unconfirmed  
 Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2  
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months  
 Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Method of Shipment: \_\_\_\_\_  
 Relinquished by: *Ann Smith* Date: 11/20/23 15:10 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by: *M. Pinette* Date/Time: NOV 22 2023 08:40 Company: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_  
 Custody Seals Intact: \_\_\_\_\_ Custody Seal No.: \_\_\_\_\_ Cooler Temperature(s) °C and Other Remarks: \_\_\_\_\_  
 Δ Yes Δ No



## Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-18  
 SDG Number: HEN\_845\_803\_RAD

**Login Number: 242591**

**List Number: 1**

**Creator: Scott, Sherri L**

**List Source: Eurofins Chicago**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.7,4.9,3.2,4.2,3.0,1.8,5.6,4.6,2.4,4.6,4.4,5.0,,2.3,4.9,5.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	False	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-18  
 SDG Number: HEN\_845\_803\_RAD

**Login Number: 242591**

**List Number: 2**

**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**

**List Creation: 11/16/23 12:55 PM**

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



## Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-18  
 SDG Number: HEN\_845\_803\_RAD

**Login Number: 242591**  
**List Number: 3**  
**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**  
**List Creation: 11/17/23 01:43 PM**

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



## Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-18  
 SDG Number: HEN\_845\_803\_RAD

**Login Number: 242591**

**List Number: 5**

**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**

**List Creation: 11/20/23 02:30 PM**

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



## Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-18  
 SDG Number: HEN\_845\_803\_RAD

**Login Number: 242591**  
**List Number: 7**  
**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**  
**List Creation: 11/21/23 12:16 PM**

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



## Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-18  
 SDG Number: HEN\_845\_803\_RAD

**Login Number: 242591**  
**List Number: 9**  
**Creator: Pinette, Meadow L**

**List Source: Eurofins St. Louis**  
**List Creation: 11/22/23 01:50 PM**

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



# Tracer/Carrier Summary

Client: Vistra Energy Corp  
 Project/Site: HEN-23Q4

ATTACHMENT B.  
 845 QUARTERLY REPORT - QUARTER 4, 2023  
 HENNEPIN POWER PLANT, EAST ASH POND  
 Job ID: 500-242591-18  
 HEN\_845\_803  
 SDG: HEN\_845\_803\_RAD

## Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	
500-242591-22	HEN_54	96.1	
500-242591-23	HEN_47	98.2	
500-242591-24	HEN_12	95.1	
500-242591-25	HEN_13	98.7	
500-242591-26	HEN_08&D	95.6	
500-242591-27	HEN_08	98.7	
500-242591-28	HEN_08_FD	93.8	
500-242591-30	HEN_17	94.9	
500-242591-31	HEN_16	90.2	
500-242591-35	HEN_46	91.8	
500-242591-37	HEN_52	97.2	
500-242591-38	HEN_07	94.1	
LCS 160-637928/2-A	Lab Control Sample	98.2	
LCS 160-638356/2-A	Lab Control Sample	96.4	
MB 160-637928/1-A	Method Blank	101	
MB 160-638356/1-A	Method Blank	102	

**Tracer/Carrier Legend**  
 Ba = Ba Carrier

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

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
500-242591-22	HEN_54	96.1	73.3
500-242591-23	HEN_47	98.2	72.5
500-242591-24	HEN_12	95.1	79.6
500-242591-25	HEN_13	98.7	85.6
500-242591-26	HEN_08&D	95.6	73.3
500-242591-27	HEN_08	98.7	77.4
500-242591-28	HEN_08_FD	93.8	75.1
500-242591-30	HEN_17	94.9	78.5
500-242591-31	HEN_16	90.2	80.0
500-242591-35	HEN_46	91.8	81.1
500-242591-37	HEN_52	97.2	76.3
500-242591-38	HEN_07	94.1	77.4
LCS 160-638358/2-A	Lab Control Sample	96.4	83.4
MB 160-637931/1-A	Method Blank	101	80.7
MB 160-638358/1-A	Method Blank	102	85.6

**Tracer/Carrier Legend**  
 Ba = Ba Carrier  
 Y = Y Carrier

**ATTACHMENT C  
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND  
QUARTER 4, 2023**

**ATTACHMENT C.**  
**COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023**  
845 QUARTERLY REPORT  
HENNEPIN POWER PLANT  
EAST ASH POND  
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
12	UA	E003	Antimony, total	mg/L	12/09/15 - 11/17/23	19	100	All ND - Last	0.003	0.001
12	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/17/23	24	100	All ND - Last	0.001	0.001
12	UA	E003	Barium, total	mg/L	12/09/15 - 11/17/23	26	0	CI around mean	0.0517	0.212
12	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.001	0.001
12	UA	E003	Boron, total	mg/L	12/09/15 - 11/17/23	27	0	CB around T-S line	0.0463	0.163
12	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/17/23	28	90	CI around median	0.001	0.00230
12	UA	E003	Chloride, total	mg/L	12/09/15 - 11/17/23	27	0	CI around mean	70.3	435
12	UA	E003	Chromium, total	mg/L	12/09/15 - 11/17/23	24	97	CB around T-S line	0.0015	0.00100
12	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/17/23	22	82	Most recent sample	0.001	0.0380
12	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/17/23	27	3	CI around median	0.23	0.120
12	UA	E003	Lead, total	mg/L	12/09/15 - 11/17/23	24	100	All ND - Last	0.0005	0.00150
12	UA	E003	Lithium, total	mg/L	12/09/15 - 11/17/23	23	4	CB around linear reg	0.00551	0.0190
12	UA	E003	Mercury, total	mg/L	12/09/15 - 11/17/23	21	100	All ND - Last	0.0002	0.0002
12	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/17/23	26	0	CB around linear reg	0.0114	0.00170
12	UA	E003	pH (field)	SU	12/09/15 - 11/17/23	34	0	CI around mean	7.3/7.4	6.6/7.5
12	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/17/23	22	0	CI around mean	0.477	2.00
12	UA	E003	Selenium, total	mg/L	12/09/15 - 11/17/23	26	57	CI around median	0.001	0.00140
12	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/17/23	27	0	CI around geomean	63.5	215
12	UA	E003	Thallium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.002	0.001
12	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	461	1,620
13	UA	E003	Antimony, total	mg/L	12/09/15 - 11/17/23	19	96	CB around T-S line	0.001	0.001
13	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/17/23	24	97	CI around median	0.001	0.001
13	UA	E003	Barium, total	mg/L	12/09/15 - 11/17/23	26	0	CI around mean	0.0427	0.212
13	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.001	0.001
13	UA	E003	Boron, total	mg/L	12/09/15 - 11/17/23	27	0	CI around median	0.345	0.163
13	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/17/23	28	97	CI around median	0.001	0.00230
13	UA	E003	Chloride, total	mg/L	12/09/15 - 11/17/23	27	0	CI around mean	73.3	435

**ATTACHMENT C.**  
**COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023**  
845 QUARTERLY REPORT  
HENNEPIN POWER PLANT  
EAST ASH POND  
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
13	UA	E003	Chromium, total	mg/L	12/09/15 - 11/17/23	24	86	CB around T-S line	0.00155	0.00100
13	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/17/23	22	82	Most recent sample	0.001	0.0380
13	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/17/23	27	3	CI around median	0.2	0.120
13	UA	E003	Lead, total	mg/L	12/09/15 - 11/17/23	24	97	CI around median	0.001	0.00150
13	UA	E003	Lithium, total	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	0.0164	0.0190
13	UA	E003	Mercury, total	mg/L	12/09/15 - 11/17/23	21	100	All ND - Last	0.0002	0.0002
13	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/17/23	26	27	CI around mean	0.0148	0.00170
13	UA	E003	pH (field)	SU	12/09/15 - 11/17/23	34	0	CI around mean	7.4/7.5	6.6/7.5
13	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/17/23	22	0	CI around mean	0.483	2.00
13	UA	E003	Selenium, total	mg/L	12/09/15 - 11/17/23	26	43	CI around mean	0.00135	0.00140
13	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/17/23	27	0	CI around mean	76.4	215
13	UA	E003	Thallium, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.002	0.001
13	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/17/23	26	0	CI around mean	479	1,620
46	UA	E003	Antimony, total	mg/L	12/09/15 - 11/20/23	18	100	All ND - Last	0.003	0.001
46	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/20/23	20	100	All ND - Last	0.001	0.001
46	UA	E003	Barium, total	mg/L	12/09/15 - 11/20/23	22	0	CB around linear reg	0.0649	0.212
46	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/20/23	17	100	All ND - Last	0.001	0.001
46	UA	E003	Boron, total	mg/L	12/09/15 - 11/20/23	23	0	CI around mean	0.191	0.163
46	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/20/23	21	100	All ND - Last	0.0005	0.00230
46	UA	E003	Chloride, total	mg/L	12/09/15 - 11/20/23	23	0	CI around mean	69.8	435
46	UA	E003	Chromium, total	mg/L	12/09/15 - 11/20/23	20	90	CB around T-S line	0.0015	0.00100
46	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/20/23	21	100	All ND - Last	0.001	0.0380
46	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/20/23	23	4	CI around median	0.24	0.120
46	UA	E003	Lead, total	mg/L	12/09/15 - 11/20/23	20	100	All ND - Last	0.0005	0.00150
46	UA	E003	Lithium, total	mg/L	12/09/15 - 11/20/23	22	4	CI around median	0.0089	0.0190
46	UA	E003	Mercury, total	mg/L	12/09/15 - 11/20/23	17	100	All ND - Last	0.0002	0.0002
46	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/20/23	22	0	CB around T-S line	0.0104	0.00170



**ATTACHMENT C.**  
**COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023**  
845 QUARTERLY REPORT  
HENNEPIN POWER PLANT  
EAST ASH POND  
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
46	UA	E003	pH (field)	SU	12/09/15 - 11/20/23	23	0	CB around linear reg	7.0/7.3	6.6/7.5
46	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/20/23	22	0	CI around geomean	0.304	2.00
46	UA	E003	Selenium, total	mg/L	12/09/15 - 11/20/23	22	59	CI around median	0.001	0.00140
46	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/20/23	23	0	CI around geomean	61.9	215
46	UA	E003	Thallium, total	mg/L	12/09/15 - 11/20/23	17	100	All ND - Last	0.002	0.001
46	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/20/23	23	0	CB around linear reg	448	1,620
47	UA	E003	Antimony, total	mg/L	12/09/15 - 11/17/23	18	100	All ND - Last	0.003	0.001
47	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/17/23	20	95	CI around median	0.001	0.001
47	UA	E003	Barium, total	mg/L	12/09/15 - 11/17/23	22	0	CI around mean	0.0783	0.212
47	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/17/23	17	100	All ND - Last	0.001	0.001
47	UA	E003	Boron, total	mg/L	12/09/15 - 11/17/23	23	0	CI around geomean	0.211	0.163
47	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/17/23	21	100	All ND - Last	0.0005	0.00230
47	UA	E003	Chloride, total	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	73.9	435
47	UA	E003	Chromium, total	mg/L	12/09/15 - 11/17/23	20	95	CB around T-S line	0.00149	0.00100
47	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/17/23	21	81	CI around median	0.001	0.0380
47	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/17/23	23	4	CB around T-S line	0.206	0.120
47	UA	E003	Lead, total	mg/L	12/09/15 - 11/17/23	20	100	All ND - Last	0.0005	0.00150
47	UA	E003	Lithium, total	mg/L	12/09/15 - 11/17/23	22	0	CI around mean	0.00839	0.0190
47	UA	E003	Mercury, total	mg/L	12/09/15 - 11/17/23	17	100	All ND - Last	0.0002	0.0002
47	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/17/23	22	0	CB around linear reg	0.0133	0.00170
47	UA	E003	pH (field)	SU	12/09/15 - 11/17/23	23	0	CI around mean	7.0/7.1	6.6/7.5
47	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/17/23	22	0	CI around mean	0.387	2.00
47	UA	E003	Selenium, total	mg/L	12/09/15 - 11/17/23	21	90	CB around T-S line	0.001	0.00140
47	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	63.8	215
47	UA	E003	Thallium, total	mg/L	12/09/15 - 11/17/23	17	100	All ND - Last	0.002	0.001
47	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/17/23	23	0	CI around mean	475	1,620
52	UA	E003	Antimony, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.003	0.001

**ATTACHMENT C.**  
**COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023**  
845 QUARTERLY REPORT  
HENNEPIN POWER PLANT  
EAST ASH POND  
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
52	UA	E003	Arsenic, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.001	0.001
52	UA	E003	Barium, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	0.0721	0.212
52	UA	E003	Beryllium, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.001	0.001
52	UA	E003	Boron, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	0.133	0.163
52	UA	E003	Cadmium, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.0005	0.00230
52	UA	E003	Chloride, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	72.6	435
52	UA	E003	Chromium, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.005	0.00100
52	UA	E003	Cobalt, total	mg/L	02/24/21 - 11/20/23	12	92	Most recent sample	0.001	0.0380
52	UA	E003	Fluoride, total	mg/L	02/24/21 - 11/20/23	12	8	CI around geomean	0.262	0.120
52	UA	E003	Lead, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.0005	0.00150
52	UA	E003	Lithium, total	mg/L	02/24/21 - 11/20/23	12	8	CI around mean	0.00558	0.0190
52	UA	E003	Mercury, total	mg/L	02/24/21 - 11/20/23	12	100	All ND - Last	0.0002	0.0002
52	UA	E003	Molybdenum, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	0.0103	0.00170
52	UA	E003	pH (field)	SU	02/24/21 - 11/20/23	12	0	CI around mean	7.0/7.4	6.6/7.5
52	UA	E003	Radium 226 + Radium 228, total	pCi/L	02/24/21 - 11/20/23	12	0	CI around mean	0.381	2.00
52	UA	E003	Selenium, total	mg/L	02/24/21 - 11/20/23	12	92	CB around T-S line	0.001	0.00140
52	UA	E003	Sulfate, total	mg/L	02/24/21 - 11/20/23	12	0	CI around mean	59	215
52	UA	E003	Thallium, total	mg/L	02/24/21 - 11/20/23	12	92	CI around median	0.002	0.001
52	UA	E003	Total Dissolved Solids	mg/L	02/24/21 - 11/20/23	11	0	CI around mean	434	1,620
54	UA	E003	Antimony, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.003	0.001
54	UA	E003	Arsenic, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.001	0.001
54	UA	E003	Barium, total	mg/L	02/24/21 - 11/17/23	12	0	CB around linear reg	0.0376	0.212
54	UA	E003	Beryllium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.001	0.001
54	UA	E003	Boron, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	0.485	0.163
54	UA	E003	Cadmium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.0005	0.00230
54	UA	E003	Chloride, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	79.2	435
54	UA	E003	Chromium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.005	0.00100

**ATTACHMENT C.  
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023**

845 QUARTERLY REPORT  
HENNEPIN POWER PLANT  
EAST ASH POND  
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
54	UA	E003	Cobalt, total	mg/L	02/24/21 - 11/17/23	12	83	CI around median	0.001	0.0380
54	UA	E003	Fluoride, total	mg/L	02/24/21 - 11/17/23	12	8	CB around linear reg	0.179	0.120
54	UA	E003	Lead, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.0005	0.00150
54	UA	E003	Lithium, total	mg/L	02/24/21 - 11/17/23	12	0	CB around linear reg	0.00812	0.0190
54	UA	E003	Mercury, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.0002	0.0002
54	UA	E003	Molybdenum, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	0.0208	0.00170
54	UA	E003	pH (field)	SU	02/24/21 - 11/17/23	12	0	CI around mean	7.0/7.4	6.6/7.5
54	UA	E003	Radium 226 + Radium 228, total	pCi/L	02/24/21 - 11/17/23	12	0	CI around mean	0.132	2.00
54	UA	E003	Selenium, total	mg/L	02/24/21 - 11/17/23	12	50	CB around linear reg	0.00148	0.00140
54	UA	E003	Sulfate, total	mg/L	02/24/21 - 11/17/23	12	0	CI around mean	75.5	215
54	UA	E003	Thallium, total	mg/L	02/24/21 - 11/17/23	12	100	All ND - Last	0.002	0.001
54	UA	E003	Total Dissolved Solids	mg/L	02/24/21 - 11/17/23	10	0	CI around mean	488	1,620

**Notes:**

Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value

HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

mg/L = milligrams per liter

ND = non-detect

pCi/L = picocuries per liter

SU = standard units

Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result

Statistical Calculation = method used to calculate the statistical result:

All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown

CB around T-S line = Confidence band around Thiel-Sen line

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

Most recent sample = Result for the most recently collected sample used due to insufficient data

Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range

For pH, the values presented are the lower / upper limits of the background determination