Luminant

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 West Ash Pond System; IEPA ID # W1550100002-01 and # W1550100002-03

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 West Ash Pond System, identified by Illinois Environmental Protection Agency (IEPA) ID No. W1550100002-01 and No. W1550100002-03. 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.

The date of this submittal is considered to be the date that exceedances of the GWPS were detected. This notification of exceedances of the GWPSs in 35 I.A.C. § 845.600 will be placed in the facility's operating record within 30 days as required by 35 I.A.C. § 845.800(d)(16).

As allowed in 35 I.A.C. § 845.650(e), an alternative source demonstration (ASD) was submitted on November 10, 2023 for the exceedance of the cadmium GWPS detected during the Quarter 2, 2023 sampling event. Exceedances of cadmium were detected during the Quarter 4, 2023 sampling event in the same monitoring wells identified in the approved ASD. The IEPA provided a written concurrence with the ASD on December 11, 2023. The approved ASD for cadmium remains to be valid for the Quarter 4, 2023 GWPS exceedances.

A Corrective Measures Assessment (CMA) for the remaining GWPS exceedances of arsenic, boron, lithium, sulfate, and total dissolved solids was initiated on December 10, 2023 in accordance with 35 I.A.C. § 845.660, and a CMA extension request was submitted to IEPA on December 11, 2023 and approved on December 12, 2023. GWPS exceedances for subsequent events will be incorporated into the CMA on a case by case basis, as opposed to generating a new CMA.

Sincerely,

Dianna Tickner

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

Enclosures

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

RAMBOLL

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

March 4, 2024

Samples were collected on November 13, 14, and 15, 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 the Addendum to the Groundwater Monitoring Plan[1] 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**. The date of this submittal is considered to be the date that the exceedances were detected.

As allowed in 35 I.A.C. § 845.650(e), an alternative source demonstration[2] (ASD) was submitted on November 10, 2023 for the exceedance of the cadmium GWPS detected during the Quarter 2, 2023 sampling event. Exceedances of cadmium were detected during the Quarter 4, 2023 sampling event in the same monitoring wells identified in the approved ASD. The Illinois Environmental Protection Agency (IEPA) provided a written concurrence with the ASD on December 11, 2023[3]. The approved ASD for cadmium remains to be valid for the Quarter 4, 2023 GWPS exceedances.

A Corrective Measures Assessment (CMA) for the remaining GWPS exceedances of arsenic, boron, lithium, sulfate, and total dissolved solids was initiated on December 10, 2023 in accordance with 35 I.A.C. § 845.660, and a CMA extension request was submitted to IEPA on December 11, 2023 and approved on

[1] Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Groundwater Monitoring Plan Addendum for the West Ash Pond System. Hennepin Power Plant. Hennepin, Illinois. October 25, 2021.*

[2] Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023. 35 I.A.C. § 845.650(E): *Alternative Source Demonstration, West Ash Pond System, Hennepin Power Plant, Hennepin, IL, IEPA ID: W1550100002-01 and W1550100002-03*. November 10, 2023.

[3] Illinois Environmental Protection Agency (IEPA), 2023. *Letter from Michael Summers (IEPA) to Phil Morris (Dynegy Midwest Generation, LLC): Re: Hennepin Power Plant West Ash Pond System; W1550100002-01 & 03, Alternative Soruce Demonstration (ASD) Submittal*. December 11, 2023.

December 12, 2023. GWPS exceedances for subsequent events will be incorporated into the CMA on a case by case basis, as opposed to generating a new CMA.

TABLES

FIGURES

ATTACHMENTS

TABLES

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
32	Background	E003	11/14/2023	Antimony, total	0.0013 U	mg/L
32	Background	E003	11/14/2023	Arsenic, total	0.00037 J	mg/L
32	Background	E003	11/14/2023	Barium, total	0.0430	mg/L
32	Background	E003	11/14/2023	Beryllium, total	0.00053 U	mg/L
32	Background	E003	11/14/2023	Boron, total	0.180 J+	mg/L
32	Background	E003	11/14/2023	Cadmium, total	0.00017 U	mg/L
32	Background	E003	11/14/2023	Calcium, total	110	mg/L
32	Background	E003	11/14/2023	Chloride, total	67.0	mg/L
32	Background	E003	11/14/2023	Chromium, total	0.0011 U	mg/L
32	Background	E003	11/14/2023	Cobalt, total	0.00150	mg/L
32	Background	E003	11/14/2023	Dissolved Oxygen	0.190	mg/L
32	Background	E003	11/14/2023	Fluoride, total	0.130	mg/L
32	Background	E003	11/14/2023	Lead, total	0.000520	mg/L
32	Background	E003	11/14/2023	Lithium, total	0.00510	mg/L
32	Background	E003	11/14/2023	Mercury, total	0.000079 U	mg/L
32	Background	E003	11/14/2023	Molybdenum, total	0.0025 U	mg/L
32	Background	E003	11/14/2023	Oxidation Reduction Potential	46.9	mV
32	Background	E003	11/14/2023	pH (field)	7.2	SU
32	Background	E003	11/14/2023	Radium 226 + Radium 228, total	0.845 U*	pCi/L
32	Background	E003	11/14/2023	Selenium, total	0.00098 U	mg/L
32	Background	E003	11/14/2023	Specific Conductance @ 25C (field)	958	micromhos/cm
32	Background	E003	11/14/2023	Sulfate, total	65.0	mg/L
32	Background	E003	11/14/2023	Temperature	14.1	degrees C
32	Background	E003	11/14/2023	Thallium, total	0.00057 U	mg/L
32	Background	E003	11/14/2023	Total Dissolved Solids	600	mg/L
32	Background	E003	11/14/2023	Turbidity, field	6.37	NTU
34	Background	E003	11/14/2023	Antimony, total	0.0013 U	mg/L
34	Background	E003	11/14/2023	Arsenic, total	0.00069 J	mg/L
34	Background	E003	11/14/2023	Barium, total	0.110	mg/L
34	Background	E003	11/14/2023	Beryllium, total	0.00053 U	mg/L
34	Background	E003	11/14/2023	Boron, total	0.110 J+	mg/L
34	Background	E003	11/14/2023	Cadmium, total	0.00017 U	mg/L
34	Background	E003	11/14/2023	Calcium, total	150	mg/L
34	Background	E003	11/14/2023	Chloride, total	67.0	mg/L
34	Background	E003	11/14/2023	Chromium, total	0.0011 U	mg/L
34	Background	E003	11/14/2023	Cobalt, total	0.00052 J	mg/L
34	Background	E003	11/14/2023	Dissolved Oxygen	0	mg/L
34	Background	E003	11/14/2023	Fluoride, total	0.150	mg/L
34	Background	E003	11/14/2023	Lead, total	0.000690	mg/L
34	Background	E003	11/14/2023	Lithium, total	0.0160	mg/L
34	Background	E003	11/14/2023	Mercury, total	0.000079 U	mg/L
34	Background	E003	11/14/2023	Molybdenum, total	0.0025 U	mg/L
34	Background	E003	11/14/2023	Oxidation Reduction Potential	-111	mV
34	Background	E003	11/14/2023	pH (field)	7.2	SU
34	Background	E003	11/14/2023	Radium 226 + Radium 228, total	0.742 U*	pCi/L
34	Background	E003	11/14/2023	Selenium, total	0.00098 U	mg/L

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WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
34	Background	E003	11/14/2023	Specific Conductance @ 25C (field)	1,349	micromhos/cm
34	Background	E003	11/14/2023	Sulfate, total	49.0	mg/L
34	Background	E003	11/14/2023	Temperature	12.6	degrees C
34	Background	E003	11/14/2023	Thallium, total	0.00057 U	mg/L
34	Background	E003	11/14/2023	Total Dissolved Solids	700	mg/L
34	Background	E003	11/14/2023	Turbidity, field	6.69	NTU
21R	Compliance	E003	11/14/2023	Antimony, total	0.0013 U	mg/L
21R	Compliance	E003	11/14/2023	Arsenic, total	0.0210	mg/L
21R	Compliance	E003	11/14/2023	Barium, total	0.310	mg/L
21R	Compliance	E003	11/14/2023	Beryllium, total	0.00053 U	mg/L
21R	Compliance	E003	11/14/2023	Boron, total	2.10	mg/L
21R	Compliance	E003	11/14/2023	Cadmium, total	0.00024 J	mg/L
21R	Compliance	E003	11/14/2023	Calcium, total	120	mg/L
21R	Compliance	E003	11/14/2023	Chloride, total	89.0	mg/L
21R	Compliance	E003	11/14/2023	Chromium, total	0.004 J	mg/L
21R	Compliance	E003	11/14/2023	Cobalt, total	0.00190	mg/L
21R	Compliance	E003	11/14/2023	Dissolved Oxygen	0.120	mg/L
21R	Compliance	E003	11/14/2023	Fluoride, total	0.140	mg/L
21R	Compliance	E003	11/14/2023	Lead, total	0.00370	mg/L
21R	Compliance	E003	11/14/2023	Lithium, total	0.0280	mg/L
21R	Compliance	E003	11/14/2023	Mercury, total	0.000079 U	mg/L
21R	Compliance	E003	11/14/2023	Molybdenum, total	0.00850	mg/L
21R	Compliance	E003	11/14/2023	Oxidation Reduction Potential	-167	mV
21R	Compliance	E003	11/14/2023	pH (field)	7.7	SU
21R	Compliance	E003	11/14/2023	Radium 226 + Radium 228, total	2.36	pCi/L
21R	Compliance	E003	11/14/2023	Selenium, total	0.00098 U	mg/L
21R	Compliance	E003	11/14/2023	Specific Conductance @ 25C (field)	1,092	micromhos/cm
21R	Compliance	E003	11/14/2023	Sulfate, total	81.0	mg/L
21R	Compliance	E003	11/14/2023	Temperature	13.4	degrees C
21R	Compliance	E003	11/14/2023	Thallium, total	0.00057 U	mg/L
21R	Compliance	E003	11/14/2023	Total Dissolved Solids	700	mg/L
21R	Compliance	E003	11/14/2023	Turbidity, field	31.6	NTU
22	Compliance	E003	11/15/2023	Antimony, total	0.0013 U	mg/L
22	Compliance	E003	11/15/2023	Arsenic, total	0.00087 J	mg/L
22	Compliance	E003	11/15/2023	Barium, total	0.0580	mg/L
22	Compliance	E003	11/15/2023	Beryllium, total	0.00053 U	mg/L
22	Compliance	E003	11/15/2023	Boron, total	3.20	mg/L
22	Compliance	E003	11/15/2023	Cadmium, total	0.00510	mg/L
22	Compliance	E003	11/15/2023	Calcium, total	87.0	mg/L
22	Compliance	E003	11/15/2023	Chloride, total	92.0	mg/L
22	Compliance	E003	11/15/2023	Chromium, total	0.0011 U	mg/L
22	Compliance	E003	11/15/2023	Cobalt, total	0.00210	mg/L
22	Compliance	E003	11/15/2023	Dissolved Oxygen	0.110	mg/L
22	Compliance	E003	11/15/2023	Fluoride, total	0.150	mg/L
22	Compliance	E003	11/15/2023	Lead, total	0.000500	mg/L
22	Compliance	E003	11/15/2023	Lithium, total	0.0510	mg/L

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HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
22	Compliance	E003	11/15/2023	Mercury, total	0.000079 U	mg/L
22	Compliance	E003	11/15/2023	Molybdenum, total	0.0830	mg/L
22	Compliance	E003	11/15/2023	Oxidation Reduction Potential	-48.4	mV
22	Compliance	E003	11/15/2023	pH (field)	7.7	SU
22	Compliance	E003	11/15/2023	Radium 226 + Radium 228, total	0.629	pCi/L
22	Compliance	E003	11/15/2023	Selenium, total	0.0110	mg/L
22	Compliance	E003	11/15/2023	Specific Conductance @ 25C (field)	1,353	micromhos/cm
22	Compliance	E003	11/15/2023	Sulfate, total	120	mg/L
22	Compliance	E003	11/15/2023	Temperature	15.7	degrees C
22	Compliance	E003	11/15/2023	Thallium, total	0.00057 U	mg/L
22	Compliance	E003	11/15/2023	Total Dissolved Solids	590	mg/L
22	Compliance	E003	11/15/2023	Turbidity, field	0.490	NTU
22D	Compliance	E003	11/15/2023	Antimony, total	0.0013 U	mg/L
22D	Compliance	E003	11/15/2023	Arsenic, total	0.00120	mg/L
22D	Compliance	E003	11/15/2023	Barium, total	0.0670	mg/L
22D	Compliance	E003	11/15/2023	Beryllium, total	0.00053 U	mg/L
22D	Compliance	E003	11/15/2023	Boron, total	1.50	mg/L
22D	Compliance	E003	11/15/2023	Cadmium, total	0.00017 U	mg/L
22D	Compliance	E003	11/15/2023	Calcium, total	120	mg/L
22D	Compliance	E003	11/15/2023	Chloride, total	93.0	mg/L
22D	Compliance	E003	11/15/2023	Chromium, total	0.0011 U	mg/L
22D	Compliance	E003	11/15/2023	Cobalt, total	0.00059 J	mg/L
22D	Compliance	E003	11/15/2023	Dissolved Oxygen	0.720	mg/L
22D	Compliance	E003	11/15/2023	Fluoride, total	0.110	mg/L
22D	Compliance	E003	11/15/2023	Lead, total	0.00026 J	mg/L
22D	Compliance	E003	11/15/2023	Lithium, total	0.0190	mg/L
22D	Compliance	E003	11/15/2023	Mercury, total	0.000079 U	mg/L
22D	Compliance	E003	11/15/2023	Molybdenum, total	0.00690	mg/L
22D	Compliance	E003	11/15/2023	Oxidation Reduction Potential	-112	mV
22D	Compliance	E003	11/15/2023	pH (field)	7.4	SU
22D	Compliance	E003	11/15/2023	Radium 226 + Radium 228, total	0.76	pCi/L
22D	Compliance	E003	11/15/2023	Selenium, total	0.00098 U	mg/L
22D	Compliance	E003	11/15/2023	Specific Conductance @ 25C (field)	1,361	micromhos/cm
22D	Compliance	E003	11/15/2023	Sulfate, total	89.0	mg/L
22D	Compliance	E003	11/15/2023	Temperature	16.2	degrees C
22D	Compliance	E003	11/15/2023	Thallium, total	0.00057 U	mg/L
22D	Compliance	E003	11/15/2023	Total Dissolved Solids	640	mg/L
22D	Compliance	E003	11/15/2023	Turbidity, field	2.17	NTU
23	Compliance	E003	11/15/2023	Antimony, total	0.0013 U	mg/L
23	Compliance	E003	11/15/2023	Arsenic, total	0.00083 J	mg/L
23	Compliance	E003	11/15/2023	Barium, total	0.0400	mg/L
23	Compliance	E003	11/15/2023	Beryllium, total	0.00053 U	mg/L
23	Compliance	E003	11/15/2023	Boron, total	8.70	mg/L
23	Compliance	E003	11/15/2023	Cadmium, total	0.00017 U	mg/L
23	Compliance	E003	11/15/2023	Calcium, total	110	mg/L
23	Compliance	E003	11/15/2023	Chloride, total	56.0	mg/L

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845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
23	Compliance	E003	11/15/2023	Chromium, total	0.0011 U	mg/L
23	Compliance	E003	11/15/2023	Cobalt, total	0.00053 J	mg/L
23	Compliance	E003	11/15/2023	Dissolved Oxygen	0.0800	mg/L
23	Compliance	E003	11/15/2023	Fluoride, total	0.150	mg/L
23	Compliance	E003	11/15/2023	Lead, total	0.00024 J	mg/L
23	Compliance	E003	11/15/2023	Lithium, total	0.00660	mg/L
23	Compliance	E003	11/15/2023	Mercury, total	0.000079 U	mg/L
23	Compliance	E003	11/15/2023	Molybdenum, total	0.0150	mg/L
23	Compliance	E003	11/15/2023	Oxidation Reduction Potential	-88.1	mV
23	Compliance	E003	11/15/2023	pH (field)	7.5	SU
23	Compliance	E003	11/15/2023	Radium 226 + Radium 228, total	0.533 U*	pCi/L
23	Compliance	E003	11/15/2023	Selenium, total	0.00098 U	mg/L
23	Compliance	E003	11/15/2023	Specific Conductance @ 25C (field)	1,674	micromhos/cm
23	Compliance	E003	11/15/2023	Sulfate, total	430	mg/L
23	Compliance	E003	11/15/2023	Temperature	13.6	degrees C
23	Compliance	E003	11/15/2023	Thallium, total	0.00057 U	mg/L
23	Compliance	E003	11/15/2023	Total Dissolved Solids	890	mg/L
23	Compliance	E003	11/15/2023	Turbidity, field	2.69	NTU
27	Compliance	E003	11/14/2023	Antimony, total	0.0013 U	mg/L
27	Compliance	E003	11/14/2023	Arsenic, total	0.00120	mg/L
27	Compliance	E003	11/14/2023	Barium, total	0.0840	mg/L
27	Compliance	E003	11/14/2023	Beryllium, total	0.00053 U	mg/L
27	Compliance	E003	11/14/2023	Boron, total	2.40	mg/L
27	Compliance	E003	11/14/2023	Cadmium, total	0.00017 U	mg/L
27	Compliance	E003	11/14/2023	Calcium, total	120	mg/L
27	Compliance	E003	11/14/2023	Chloride, total	88.0	mg/L
27	Compliance	E003	11/14/2023	Chromium, total	0.0011 U	mg/L
27	Compliance	E003	11/14/2023	Cobalt, total	0.00220	mg/L
27	Compliance	E003	11/14/2023	Dissolved Oxygen	0.380	mg/L
27	Compliance	E003	11/14/2023	Fluoride, total	0.120	mg/L
27	Compliance	E003	11/14/2023	Lead, total	0.000660	mg/L
27	Compliance	E003	11/14/2023	Lithium, total	0.0230	mg/L
27	Compliance	E003	11/14/2023	Mercury, total	0.000079 U	mg/L
27	Compliance	E003	11/14/2023	Molybdenum, total	0.0045 J	mg/L
27	Compliance	E003	11/14/2023	Oxidation Reduction Potential	-50.4	mV
27	Compliance	E003	11/14/2023	pH (field)	7.3	SU
27	Compliance	E003	11/14/2023	Radium 226 + Radium 228, total	0.775	pCi/L
27	Compliance	E003	11/14/2023	Selenium, total	0.00098 U	mg/L
27	Compliance	E003	11/14/2023	Specific Conductance @ 25C (field)	1,206	micromhos/cm
27	Compliance	E003	11/14/2023	Sulfate, total	120	mg/L
27	Compliance	E003	11/14/2023	Temperature	12.7	degrees C
27	Compliance	E003	11/14/2023	Thallium, total	0.00057 U	mg/L
27	Compliance	E003	11/14/2023	Total Dissolved Solids	660	mg/L
27	Compliance	E003	11/14/2023	Turbidity, field	6.12	NTU
35	Compliance	E003	11/15/2023	Antimony, total	0.0013 U	mg/L
35	Compliance	E003	11/15/2023	Arsenic, total	0.0009 J	mg/L

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HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
35	Compliance	E003	11/15/2023	Barium, total	0.0470	mg/L
35	Compliance	E003	11/15/2023	Beryllium, total	0.00053 U	mg/L
35	Compliance	E003	11/15/2023	Boron, total	11.0	mg/L
35	Compliance	E003	11/15/2023	Cadmium, total	0.00029 J	mg/L
35	Compliance	E003	11/15/2023	Calcium, total	320	mg/L
35	Compliance	E003	11/15/2023	Chloride, total	24.0	mg/L
35	Compliance	E003	11/15/2023	Chromium, total	0.0011 U	mg/L
35	Compliance	E003	11/15/2023	Cobalt, total	0.00170	mg/L
35	Compliance	E003	11/15/2023	Dissolved Oxygen	0.210	mg/L
35	Compliance	E003	11/15/2023	Fluoride, total	0.150	mg/L
35	Compliance	E003	11/15/2023	Lead, total	0.00019 U	mg/L
35	Compliance	E003	11/15/2023	Lithium, total	0.0330	mg/L
35	Compliance	E003	11/15/2023	Mercury, total	0.000079 U	mg/L
35	Compliance	E003	11/15/2023	Molybdenum, total	0.0700	mg/L
35	Compliance	E003	11/15/2023	Oxidation Reduction Potential	228	mV
35	Compliance	E003	11/15/2023	pH (field)	6.9	SU
35	Compliance	E003	11/15/2023	Radium 226 + Radium 228, total	0.634	pCi/L
35	Compliance	E003	11/15/2023	Selenium, total	0.00098 U	mg/L
35	Compliance	E003	11/15/2023	Specific Conductance @ 25C (field)	2,411	micromhos/cm
35	Compliance	E003	11/15/2023	Sulfate, total	730	mg/L
35	Compliance	E003	11/15/2023	Temperature	15.6	degrees C
35	Compliance	E003	11/15/2023	Thallium, total	0.00057 U	mg/L
35	Compliance	E003	11/15/2023	Total Dissolved Solids	1,500	mg/L
35	Compliance	E003	11/15/2023	Turbidity, field	0.600	NTU
49	Compliance	E003	11/15/2023	Antimony, total	0.0013 U	mg/L
49	Compliance	E003	11/15/2023	Arsenic, total	0.00028 J	mg/L
49	Compliance	E003	11/15/2023	Barium, total	0.0600	mg/L
49	Compliance	E003	11/15/2023	Beryllium, total	0.00053 U	mg/L
49	Compliance	E003	11/15/2023	Boron, total	0.890	mg/L
49	Compliance	E003	11/15/2023	Cadmium, total	0.00120	mg/L
49	Compliance	E003	11/15/2023	Calcium, total	100	mg/L
49	Compliance	E003	11/15/2023	Chloride, total	95.0	mg/L
49	Compliance	E003	11/15/2023	Chromium, total	0.0011 U	mg/L
49	Compliance	E003	11/15/2023	Cobalt, total	0.00310	mg/L
49	Compliance	E003	11/15/2023	Dissolved Oxygen	0.0600	mg/L
49	Compliance	E003	11/15/2023	Fluoride, total	0.150	mg/L
49	Compliance	E003	11/15/2023	Lead, total	0.00019 U	mg/L
49	Compliance	E003	11/15/2023	Lithium, total	0.0240	mg/L
49	Compliance	E003	11/15/2023	Mercury, total	0.000079 U	mg/L
49	Compliance	E003	11/15/2023	Molybdenum, total	0.0230	mg/L
49	Compliance	E003	11/15/2023	Oxidation Reduction Potential	11.1	mV
49	Compliance	E003	11/15/2023	pH (field)	7.2	SU
49	Compliance	E003	11/15/2023	Radium 226 + Radium 228, total	0.638	pCi/L
49	Compliance	E003	11/15/2023	Selenium, total	0.00098 U	mg/L
49	Compliance	E003	11/15/2023	Specific Conductance @ 25C (field)	1,440	micromhos/cm
49	Compliance	E003	11/15/2023	Sulfate, total	77.0	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
49	Compliance	E003	11/15/2023	Temperature	14.9	degrees C
49	Compliance	E003	11/15/2023	Thallium, total	0.00057 U	mg/L
49	Compliance	E003	11/15/2023	Total Dissolved Solids	580	mg/L
49	Compliance	E003	11/15/2023	Turbidity, field	9.23	NTU
50	Compliance	E003	11/14/2023	Antimony, total	0.0013 U	mg/L
50	Compliance	E003	11/14/2023	Arsenic, total	0.00076 J	mg/L
50	Compliance	E003	11/14/2023	Barium, total	0.0870	mg/L
50	Compliance	E003	11/14/2023	Beryllium, total	0.00053 U	mg/L
50	Compliance	E003	11/14/2023	Boron, total	1.00	mg/L
50	Compliance	E003	11/14/2023	Cadmium, total	0.00150	mg/L
50	Compliance	E003	11/14/2023	Calcium, total	110	mg/L
50	Compliance	E003	11/14/2023	Chloride, total	83.0	mg/L
50	Compliance	E003	11/14/2023	Chromium, total	0.0011 U	mg/L
50	Compliance	E003	11/14/2023	Cobalt, total	0.00360	mg/L
50	Compliance	E003	11/14/2023	Dissolved Oxygen	0.283	mg/L
50	Compliance	E003	11/14/2023	Fluoride, total	0.120	mg/L
50	Compliance	E003	11/14/2023	Lead, total	0.00023 J	mg/L
50	Compliance	E003	11/14/2023	Lithium, total	0.0300	mg/L
50	Compliance	E003	11/14/2023	Mercury, total	0.000079 U	mg/L
50	Compliance	E003	11/14/2023	Molybdenum, total	0.0470	mg/L
50	Compliance	E003	11/14/2023	Oxidation Reduction Potential	207	mV
50	Compliance	E003	11/14/2023	pH (field)	7.5	SU
50	Compliance	E003	11/14/2023	Radium 226 + Radium 228, total	1.05	pCi/L
50	Compliance	E003	11/14/2023	Selenium, total	0.00098 U	mg/L
50	Compliance	E003	11/14/2023	Specific Conductance @ 25C (field)	136	micromhos/cm
50	Compliance	E003	11/14/2023	Sulfate, total	91.0	mg/L
50	Compliance	E003	11/14/2023	Temperature	15.7	degrees C
50	Compliance	E003	11/14/2023	Thallium, total	0.00057 U	mg/L
50	Compliance	E003	11/14/2023	Total Dissolved Solids	610	mg/L
50	Compliance	E003	11/14/2023	Turbidity, field	1.25	NTU
51	Compliance	E003	11/15/2023	Antimony, total	0.0013 U	mg/L
51	Compliance	E003	11/15/2023	Arsenic, total	0.0190	mg/L
51	Compliance	E003	11/15/2023	Barium, total	0.100	mg/L
51	Compliance	E003	11/15/2023	Beryllium, total	0.00053 U	mg/L
51	Compliance	E003	11/15/2023	Boron, total	1.60	mg/L
51	Compliance	E003	11/15/2023	Cadmium, total	0.00017 U	mg/L
51	Compliance	E003	11/15/2023	Calcium, total	110	mg/L
51	Compliance	E003	11/15/2023	Chloride, total	92.0	mg/L
51	Compliance	E003	11/15/2023	Chromium, total	0.0011 U	mg/L
51	Compliance	E003	11/15/2023	Cobalt, total	0.00093 J	mg/L
51	Compliance	E003	11/15/2023	Dissolved Oxygen	0.130	mg/L
51	Compliance	E003	11/15/2023	Fluoride, total	0.130	mg/L
51	Compliance	E003	11/15/2023	Lead, total	0.00100	mg/L
51	Compliance	E003	11/15/2023	Lithium, total	0.0260	mg/L
51	Compliance	E003	11/15/2023	Mercury, total	0.000079 U	mg/L
51	Compliance	E003	11/15/2023	Molybdenum, total	0.00880	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2023
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
51	Compliance	E003	11/15/2023	Oxidation Reduction Potential	-125	mV
51	Compliance	E003	11/15/2023	pH (field)	7.4	SU
51	Compliance	E003	11/15/2023	Radium 226 + Radium 228, total	3.09 J	pCi/L
51	Compliance	E003	11/15/2023	Selenium, total	0.00098 U	mg/L
51	Compliance	E003	11/15/2023	Specific Conductance @ 25C (field)	1,505	micromhos/cm
51	Compliance	E003	11/15/2023	Sulfate, total	87.0	mg/L
51	Compliance	E003	11/15/2023	Temperature	13.0	degrees C
51	Compliance	E003	11/15/2023	Thallium, total	0.00057 U	mg/L
51	Compliance	E003	11/15/2023	Total Dissolved Solids	650	mg/L
51	Compliance	E003	11/15/2023	Turbidity, field	14.5	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.

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

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
21/21R	UA	E003	Antimony, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.003	0.006	Standard	No Exceedance
21/21R	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/14/23	29	0	CB around T-S line	0.0189	0.010	Standard	Exceedance
21/21R	UA	E003	Barium, total	mg/L	12/10/15 - 11/14/23	29	0	CB around linear reg	0.319	2.0	Standard	No Exceedance
21/21R	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.001	0.004	Standard	No Exceedance
21/21R	UA	E003	Boron, total	mg/L	12/10/15 - 11/14/23	30	0	CB around T-S line	1.95	2	Standard	No Exceedance
21/21R	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
21/21R	UA	E003	Chloride, total	mg/L	12/10/15 - 11/14/23	32	0	CB around linear reg	98.2	200	Standard	No Exceedance
21/21R	UA	E003	Chromium, total	mg/L	12/10/15 - 11/14/23	29	61	CB around T-S line	0.0015	0.1	Standard	No Exceedance
21/21R	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/14/23	29	71	CB around T-S line	0.001	0.006	Standard	No Exceedance
21/21R	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/14/23	30	9	CI around median	0.14	4.0	Standard	No Exceedance
21/21R	UA	E003	Lead, total	mg/L	12/10/15 - 11/14/23	29	52	CB around T-S line	0.00139	0.0075	Standard	No Exceedance
21/21R	UA	E003	Lithium, total	mg/L	12/10/15 - 11/14/23	29	0	CB around linear reg	0.0211	0.04	Standard	No Exceedance
21/21R	UA	E003	Mercury, total	mg/L	12/10/15 - 11/14/23	29	97	CI around median	0.0002	0.002	Standard	No Exceedance
21/21R	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/14/23	29	3	CI around mean	0.00673	0.1	Standard	No Exceedance
21/21R	UA	E003	pH (field)	SU	12/10/15 - 11/14/23	32	0	CI around mean	7.3/7.5	6.5/9.0	Standard/Standard	No Exceedance
21/21R	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/14/23	22	0	CI around mean	0.857	5	Standard	No Exceedance
21/21R	UA	E003	Selenium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
21/21R	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/14/23	32	0	CB around linear reg	55.9	400	Standard	No Exceedance
21/21R	UA	E003	Thallium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.002	0.002	Standard	No Exceedance
21/21R	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/14/23	30	0	CB around T-S line	625	1,200	Standard	No Exceedance
22	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	32	91	CB around T-S line	0.001	0.006	Standard	No Exceedance
22	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	36	74	CI around median	0.001	0.010	Standard	No Exceedance
22	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	32	0	CI around median	0.0634	2.0	Standard	No Exceedance
22	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.001	0.004	Standard	No Exceedance
22	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	37	0	CB around T-S line	3.04	2	Standard	Exceedance
22	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	32	9	CB around T-S line	0.00517	0.005	Standard	Exceedance
22	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	39	0	CB around T-S line	89.5	200	Standard	No Exceedance

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

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
22	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.005	0.1	Standard	No Exceedance
22	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	32	9	CI around mean	0.00192	0.006	Standard	No Exceedance
22	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	32	6	CI around median	0.15	4.0	Standard	No Exceedance
22	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	32	97	CI around median	0.001	0.0075	Standard	No Exceedance
22	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	36	0	CB around T-S line	0.0436	0.04	Standard	Exceedance
22	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
22	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	36	0	CB around T-S line	0.0753	0.1	Standard	No Exceedance
22	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	35	0	CI around mean	7.5/7.7	6.5/9.0	Standard/Standard	No Exceedance
22	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	23	0	CI around mean	0.365	5	Standard	No Exceedance
22	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	32	6	CB around linear reg	0.0149	0.05	Standard	No Exceedance
22	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	39	0	CB around linear reg	103	400	Standard	No Exceedance
22	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	32	94	CB around T-S line	0.002	0.002	Standard	No Exceedance
22	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	39	0	CB around linear reg	585	1,200	Standard	No Exceedance
22D	UA	E003	Antimony, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.003	0.006	Standard	No Exceedance
22D	UA	E003	Arsenic, total	mg/L	09/17/19 - 11/15/23	16	6	CI around median	0.0012	0.010	Standard	No Exceedance
22D	UA	E003	Barium, total	mg/L	09/17/19 - 11/15/23	16	0	CB around T-S line	0.0637	2.0	Standard	No Exceedance
22D	UA	E003	Beryllium, total	mg/L	09/17/19 - 11/15/23	15	100	All ND - Last	0.001	0.004	Standard	No Exceedance
22D	UA	E003	Boron, total	mg/L	09/17/19 - 11/15/23	16	0	CB around linear reg	1.2	2	Standard	No Exceedance
22D	UA	E003	Cadmium, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
22D	UA	E003	Chloride, total	mg/L	09/17/19 - 11/15/23	16	0	CB around linear reg	96.7	200	Standard	No Exceedance
22D	UA	E003	Chromium, total	mg/L	09/17/19 - 11/15/23	16	88	CI around median	0.0015	0.1	Standard	No Exceedance
22D	UA	E003	Cobalt, total	mg/L	09/17/19 - 11/15/23	16	94	CI around median	0.001	0.006	Standard	No Exceedance
22D	UA	E003	Fluoride, total	mg/L	09/17/19 - 11/15/23	16	12	CI around median	0.11	4.0	Standard	No Exceedance
22D	UA	E003	Lead, total	mg/L	09/17/19 - 11/15/23	16	94	CI around median	0.001	0.0075	Standard	No Exceedance
22D	UA	E003	Lithium, total	mg/L	09/17/19 - 11/15/23	16	0	CI around mean	0.0147	0.04	Standard	No Exceedance
22D	UA	E003	Mercury, total	mg/L	12/11/19 - 11/15/23	15	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
22D	UA	E003	Molybdenum, total	mg/L	09/17/19 - 11/15/23	16	6	CI around geomean	0.00658	0.1	Standard	No Exceedance

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

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
22D	UA	E003	pH (field)	SU	09/17/19 - 11/15/23	19	0	CI around mean	7.2/7.3	6.5/9.0	Standard/Standard	No Exceedance
22D	UA	E003	Radium 226 + Radium 228, total	pCi/L	09/17/19 - 11/15/23	13	0	CI around mean	0.605	5	Standard	No Exceedance
22D	UA	E003	Selenium, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
22D	UA	E003	Sulfate, total	mg/L	09/17/19 - 11/15/23	16	0	CB around linear reg	89	400	Standard	No Exceedance
22D	UA	E003	Thallium, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.002	0.002	Standard	No Exceedance
22D	UA	E003	Total Dissolved Solids	mg/L	09/17/19 - 11/15/23	16	0	CI around mean	601	1,200	Standard	No Exceedance
23	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.003	0.006	Standard	No Exceedance
23	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	36	95	CB around T-S line	0.001	0.010	Standard	No Exceedance
23	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	32	0	CB around T-S line	0.0315	2.0	Standard	No Exceedance
23	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.001	0.004	Standard	No Exceedance
23	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	37	0	CB around T-S line	8.34	2	Standard	Exceedance
23	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
23	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	39	1	CB around T-S line	51.3	200	Standard	No Exceedance
23	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.005	0.1	Standard	No Exceedance
23	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.001	0.006	Standard	No Exceedance
23	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	32	6	CI around median	0.15	4.0	Standard	No Exceedance
23	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
23	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	36	6	CI around mean	0.00462	0.04	Standard	No Exceedance
23	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
23	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	36	0	CI around median	0.0147	0.1	Standard	No Exceedance
23	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	34	0	CI around mean	7.4/7.5	6.5/9.0	Standard/Standard	No Exceedance
23	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	23	0	CI around mean	0.281	5	Standard	No Exceedance
23	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
23	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	39	0	CI around mean	423	400	Standard	Exceedance
23	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.002	0.002	Standard	No Exceedance
23	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	39	0	CI around mean	885	1,200	Standard	No Exceedance
24/51	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	30	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
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
24/51	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	34	0	CI around mean	0.0203	0.010	Standard	Exceedance
24/51	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	30	0	CB around linear reg	0.109	2.0	Standard	No Exceedance
24/51	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.001	0.004	Standard	No Exceedance
24/51	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	35	0	CB around linear reg	1.39	2	Standard	No Exceedance
24/51	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
24/51	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	37	0	CB around T-S line	106	200	Standard	No Exceedance
24/51	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	30	78	CB around T-S line	0.0015	0.1	Standard	No Exceedance
24/51	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	30	75	CI around median	0.001	0.006	Standard	No Exceedance
24/51	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	30	6	CI around median	0.14	4.0	Standard	No Exceedance
24/51	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	30	66	CI around median	0.001	0.0075	Standard	No Exceedance
24/51	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	34	0	CB around T-S line	0.0232	0.04	Standard	No Exceedance
24/51	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	29	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
24/51	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	34	3	CI around mean	0.00984	0.1	Standard	No Exceedance
24/51	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	32	0	CB around linear reg	7.2/7.4	6.5/9.0	Standard/Standard	No Exceedance
24/51	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	22	0	CB around linear reg	1.25	5	Standard	No Exceedance
24/51	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
24/51	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	37	0	CB around linear reg	82.6	400	Standard	No Exceedance
24/51	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.002	0.002	Standard	No Exceedance
24/51	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	37	0	CI around mean	618	1,200	Standard	No Exceedance
27	UA	E003	Antimony, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.003	0.006	Standard	No Exceedance
27	UA	E003	Arsenic, total	mg/L	09/12/18 - 11/14/23	19	62	CI around median	0.001	0.010	Standard	No Exceedance
27	UA	E003	Barium, total	mg/L	09/12/18 - 11/14/23	19	0	CI around geomean	0.0837	2.0	Standard	No Exceedance
27	UA	E003	Beryllium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.001	0.004	Standard	No Exceedance
27	UA	E003	Boron, total	mg/L	09/12/18 - 11/14/23	19	0	CB around linear reg	1.38	2	Standard	No Exceedance
27	UA	E003	Cadmium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
27	UA	E003	Chloride, total	mg/L	03/08/16 - 11/14/23	24	0	CB around linear reg	99.7	200	Standard	No Exceedance
27	UA	E003	Chromium, total	mg/L	09/12/18 - 11/14/23	19	81	CI around median	0.0015	0.1	Standard	No Exceedance

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

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
27	UA	E003	Cobalt, total	mg/L	09/12/18 - 11/14/23	19	10	CI around mean	0.00191	0.006	Standard	No Exceedance
27	UA	E003	Fluoride, total	mg/L	09/12/18 - 11/14/23	19	4	CI around median	0.12	4.0	Standard	No Exceedance
27	UA	E003	Lead, total	mg/L	09/12/18 - 11/14/23	19	57	CI around median	0.001	0.0075	Standard	No Exceedance
27	UA	E003	Lithium, total	mg/L	09/12/18 - 11/14/23	19	0	CI around mean	0.0214	0.04	Standard	No Exceedance
27	UA	E003	Mercury, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
27	UA	E003	Molybdenum, total	mg/L	09/12/18 - 11/14/23	19	16	CI around median	0.0043	0.1	Standard	No Exceedance
27	UA	E003	pH (field)	SU	03/08/16 - 11/14/23	24	0	CI around mean	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
27	UA	E003	Radium 226 + Radium 228, total	pCi/L	09/12/18 - 11/14/23	13	0	CI around geomean	0.235	5	Standard	No Exceedance
27	UA	E003	Selenium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
27	UA	E003	Sulfate, total	mg/L	03/08/16 - 11/14/23	24	0	CB around linear reg	88.5	400	Standard	No Exceedance
27	UA	E003	Thallium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.002	0.002	Standard	No Exceedance
27	UA	E003	Total Dissolved Solids	mg/L	03/08/16 - 11/14/23	24	0	CI around median	642	1,200	Standard	No Exceedance
35	UA	E003	Antimony, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.003	0.006	Standard	No Exceedance
35	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/15/23	31	81	CI around median	0.001	0.010	Standard	No Exceedance
35	UA	E003	Barium, total	mg/L	12/09/15 - 11/15/23	31	0	CI around mean	0.0409	2.0	Standard	No Exceedance
35	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.001	0.004	Standard	No Exceedance
35	UA	E003	Boron, total	mg/L	12/09/15 - 11/15/23	32	0	CB around linear reg	12.1	2	Standard	Exceedance
35	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.0005	0.005	Standard	No Exceedance
35	UA	E003	Chloride, total	mg/L	12/09/15 - 11/15/23	32	0	CI around mean	37.8	200	Standard	No Exceedance
35	UA	E003	Chromium, total	mg/L	12/09/15 - 11/15/23	31	97	CB around T-S line	0.0015	0.1	Standard	No Exceedance
35	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/15/23	31	42	CB around T-S line	0.001	0.006	Standard	No Exceedance
35	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/15/23	32	3	CI around median	0.17	4.0	Standard	No Exceedance
35	UA	E003	Lead, total	mg/L	12/09/15 - 11/15/23	31	90	CI around median	0.001	0.0075	Standard	No Exceedance
35	UA	E003	Lithium, total	mg/L	12/09/15 - 11/15/23	31	0	CI around mean	0.025	0.04	Standard	No Exceedance
35	UA	E003	Mercury, total	mg/L	12/09/15 - 11/15/23	30	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
35	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/15/23	31	0	CI around mean	0.0669	0.1	Standard	No Exceedance
35	UA	E003	pH (field)	SU	12/09/15 - 11/15/23	32	0	CB around linear reg	6.7/7.0	6.5/9.0	Standard/Standard	No Exceedance

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

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
35	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/15/23	24	0	CI around median	0.31	5	Standard	No Exceedance
35	UA	E003	Selenium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
35	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/15/23	32	0	CB around linear reg	659	400	Standard	Exceedance
35	UA	E003	Thallium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.002	0.002	Standard	No Exceedance
35	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/15/23	32	0	CB around linear reg	1,280	1,200	Standard	Exceedance
49	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.003	0.006	Standard	No Exceedance
49	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	31	97	CI around median	0.001	0.010	Standard	No Exceedance
49	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	31	0	CB around T-S line	0.0607	2.0	Standard	No Exceedance
49	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.001	0.004	Standard	No Exceedance
49	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	32	0	CB around linear reg	0.46	2	Standard	No Exceedance
49	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	31	29	CB around linear reg	0.00153	0.005	Standard	No Exceedance
49	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	32	0	CI around median	100	200	Standard	No Exceedance
49	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	31	97	CB around T-S line	0.0015	0.1	Standard	No Exceedance
49	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	31	0	CI around mean	0.00444	0.006	Standard	No Exceedance
49	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	32	3	CI around median	0.15	4.0	Standard	No Exceedance
49	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	31	94	CI around median	0.001	0.0075	Standard	No Exceedance
49	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	31	0	CI around mean	0.024	0.04	Standard	No Exceedance
49	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
49	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	31	0	CB around T-S line	0.023	0.1	Standard	No Exceedance
49	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	33	0	CI around mean	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
49	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	24	0	CI around mean	0.324	5	Standard	No Exceedance
49	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
49	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	32	0	CB around linear reg	69.1	400	Standard	No Exceedance
49	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.002	0.002	Standard	No Exceedance
49	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	32	0	CB around linear reg	572	1,200	Standard	No Exceedance
50	UA	E003	Antimony, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.003	0.006	Standard	No Exceedance
50	UA	E003	Arsenic, total	mg/L	09/17/19 - 11/14/23	16	94	CI around median	0.001	0.010	Standard	No Exceedance

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

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
50	UA	E003	Barium, total	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	0.0859	2.0	Standard	No Exceedance
50	UA	E003	Beryllium, total	mg/L	09/17/19 - 11/14/23	15	100	All ND - Last	0.001	0.004	Standard	No Exceedance
50	UA	E003	Boron, total	mg/L	09/17/19 - 11/14/23	16	0	CI around geomean	0.697	2	Standard	No Exceedance
50	UA	E003	Cadmium, total	mg/L	09/17/19 - 11/14/23	16	6	CI around median	0.0012	0.005	Standard	No Exceedance
50	UA	E003	Chloride, total	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	88.9	200	Standard	No Exceedance
50	UA	E003	Chromium, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.005	0.1	Standard	No Exceedance
50	UA	E003	Cobalt, total	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	0.00423	0.006	Standard	No Exceedance
50	UA	E003	Fluoride, total	mg/L	09/17/19 - 11/14/23	16	25	CB around T-S line	0.112	4.0	Standard	No Exceedance
50	UA	E003	Lead, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
50	UA	E003	Lithium, total	mg/L	09/17/19 - 11/14/23	16	0	CI around median	0.0201	0.04	Standard	No Exceedance
50	UA	E003	Mercury, total	mg/L	12/11/19 - 11/14/23	15	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
50	UA	E003	Molybdenum, total	mg/L	09/17/19 - 11/14/23	16	0	CB around T-S line	0.0287	0.1	Standard	No Exceedance
50	UA	E003	pH (field)	SU	09/17/19 - 11/14/23	19	0	CB around linear reg	7.3/7.6	6.5/9.0	Standard/Standard	No Exceedance
50	UA	E003	Radium 226 + Radium 228, total	pCi/L	09/17/19 - 11/14/23	12	0	CI around mean	0.565	5	Standard	No Exceedance
50	UA	E003	Selenium, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
50	UA	E003	Sulfate, total	mg/L	09/17/19 - 11/14/23	16	0	CI around geomean	86.4	400	Standard	No Exceedance
50	UA	E003	Thallium, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.002	0.002	Standard	No Exceedance
50	UA	E003	Total Dissolved Solids	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	607	1,200	Standard	No Exceedance

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

Notes:
Compliance Result:

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

Exceedance: The statistical result exceeded 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

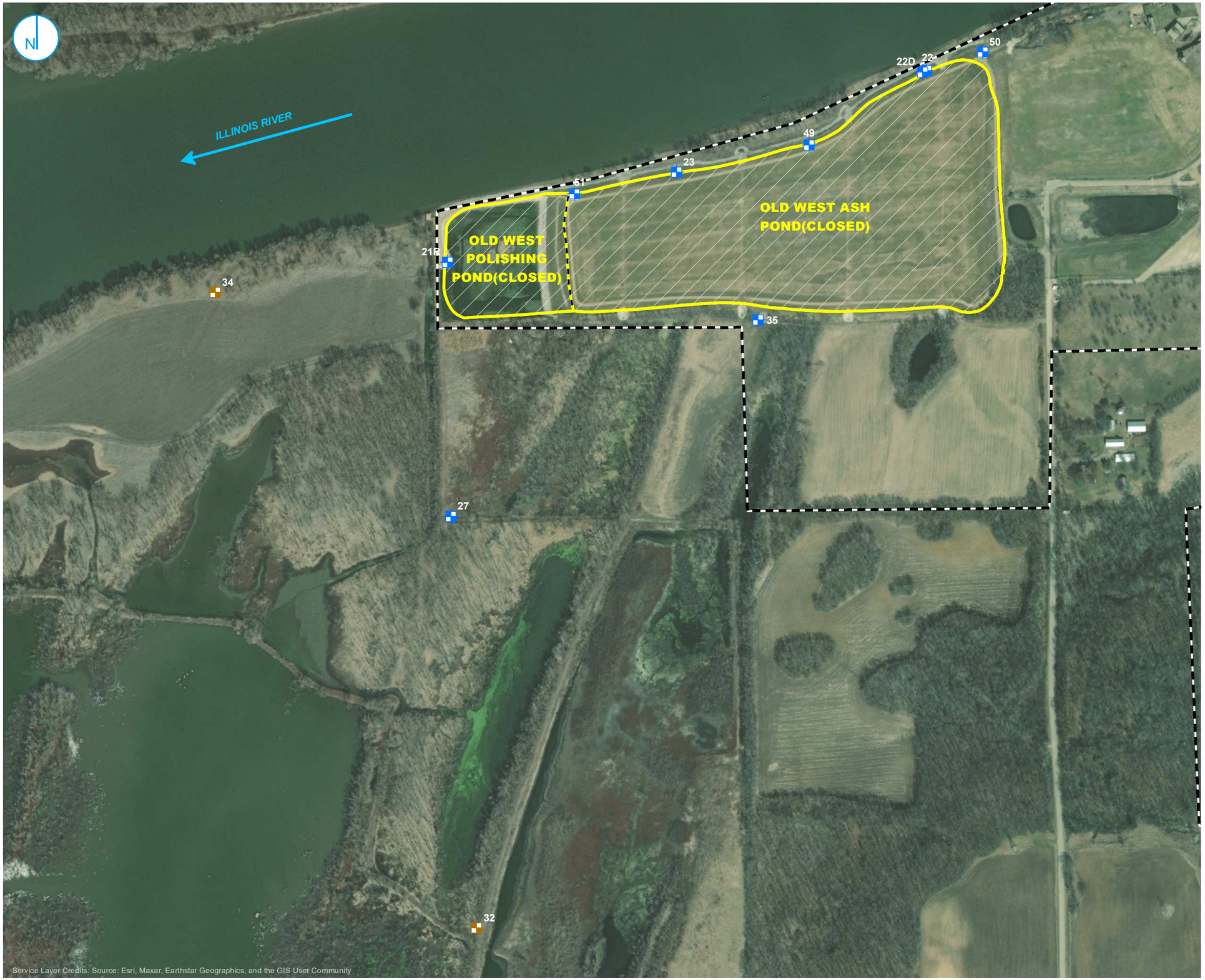
CI around median = Confidence interval around the median

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



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COMPLIANCE WELL
BACKGROUND WELL
REGULATED UNIT (SUBJECT UNIT)
LIMITS OF FINAL COVER
PROPERTY BOUNDARY

0 200 400
Feet

MONITORING WELL LOCATION MAP

WEST ASH POND SYSTEM
HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

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
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	Well Type	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
21R	Compliance	11/13/2023	5.77	446.28
22	Compliance	11/13/2023	18.43	446.02
22D	Compliance	11/13/2023	22.10	443.33
23	Compliance	11/13/2023	17.64	445.75
27	Compliance	11/13/2023	3.91	446.67
32	Background	11/13/2023	4.79	446.59
34	Background	11/13/2023	8.37	441.19
35	Compliance	11/13/2023	8.15	446.68
49	Compliance	11/13/2023	21.49	446.68
50	Compliance	11/13/2023	18.24	445.70
51	Compliance	11/13/2023	18.59	446.21

Notes:
Only wells with groundwater elevations measured are included.
BMP = below measuring point
NAVD88 = North American Vertical Datum of 1988

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

HEN-23Q4
HEN_845_804

JOB NUMBER

500-242591-5

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Eurofins Chicago

Job Notes

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Authorization

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Table of Contents

Case Narrative

Client: Vistra Energy Corp
Project: HEN-23Q4

Job ID: 500-242591-5

Job ID: 500-242591-5 | Eurofins Chicago

Job Narrative
500-242591-5

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.
Revise the sample times for the following wells:
HEN_22D 15:37.

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 1.8º C, 2.3º C, 2.4º C, 3.0º C, 3.2º C, 4.2º C, 4.4º C, 4.6º C, 4.6º C, 4.9º C, 4.9º C, 5.0º C, 5.0º C, 5.6º C and 5.7º C.

Metals

Method 6020B: The initial low level calibration verification (ICVL) result for batch 745793 was below the 80-120% control limits for Be (75%) and Se (78%). All batch QC and mid range ICV/CCV were within control limits. Sample results have been reported as qualified data.

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

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

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_21R — Lab Sample ID: 500-242591-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.028		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.021		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.31		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	2.1		0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.00024	J	0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	120		0.20	0.044	mg/L	1		6020B	Total Recoverable
Chromium	0.0040	J	0.0050	0.0011	mg/L	1		6020B	Total Recoverable
Cobalt	0.0019		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.0037		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	39		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0085		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	3.0		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	47		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	89		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	81		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	390		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	700		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.14		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	5.81				ft	1		Field Sampling	Total/NA
Field pH	7.70				SU	1		Field Sampling	Total/NA
Field Temperature	13.44				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-167.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.12				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1092.0				umhos/cm	1		Field Sampling	Total/NA
Turbidity	31.6				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_32 — Lab Sample ID: 500-242591-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0051		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00037	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.043		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.18		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	110		0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0015		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00052		0.00050	0.00019	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_32 (Continued) — Lab Sample ID: 500-242591-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	38		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	2.1		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	39		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	67		2.0	0.23	mg/L	2		300.0	Total/NA
Sulfate	65		2.0	0.41	mg/L	2		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	340		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	600		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.13		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	4.82				ft	1		Field Sampling	Total/NA
Field pH	7.21				SU	1		Field Sampling	Total/NA
Field Temperature	14.12				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	46.9				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.19				mg/L	1		Field Sampling	Total/NA
Specific Conductance	957.55				umhos/cm	1		Field Sampling	Total/NA
Turbidity	6.37				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_50 — Lab Sample ID: 500-242591-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.030		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00076	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.087		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	1.0		0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.0015		0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	110		0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0036		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00023	J	0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	23		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.047		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	8.3		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	51		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	83		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	91		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	290		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	610		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)	18.26				ft	1		Field Sampling	Total/NA
Field pH	7.54				SU	1		Field Sampling	Total/NA
Field Temperature	15.746				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	206.54				millivolts	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_50 (Continued) — Lab Sample ID: 500-242591-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Oxygen, Dissolved	0.283				mg/L	1		Field Sampling	Total/NA
Specific Conductance	135.73				umhos/cm	1		Field Sampling	Total/NA
Turbidity	1.25				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_34 — Lab Sample ID: 500-242591-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.016		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00069	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.11		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.11		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	150	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00052	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00069		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	42		0.20	0.049	mg/L	1		6020B	Total Recoverable
Potassium	0.48	J	0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	49		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	67		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	49		1.0	0.21	mg/L	1		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	570		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	700		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	8.46				ft	1		Field Sampling	Total/NA
Field pH	7.18				SU	1		Field Sampling	Total/NA
Field Temperature	12.57				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-110.6				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.00				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1348.9				umhos/cm	1		Field Sampling	Total/NA
Turbidity	6.69				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_27 — Lab Sample ID: 500-242591-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.023		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0012		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.084		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	2.4		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	120	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0022		0.0010	0.00040	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_27 (Continued) — Lab Sample ID: 500-242591-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.00066		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	37		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0045	J	0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	3.2		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	51		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	88		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	120		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	660		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)	3.92				ft	1		Field Sampling	Total/NA
Field pH	7.32				SU	1		Field Sampling	Total/NA
Field Temperature	12.74				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-50.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.38				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1206.3				umhos/cm	1		Field Sampling	Total/NA
Turbidity	6.12				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_35 — Lab Sample ID: 500-242591-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.033		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00090	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.047		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	11		0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.00029	J	0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	320	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0017		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Magnesium	39		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.070		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	13		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	28		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	24		1.0	0.12	mg/L	1		300.0	Total/NA
Sulfate	730		50	10	mg/L	50		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	310		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	1500		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	8.17				ft	1		Field Sampling	Total/NA
Field pH	6.86				SU	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_35 (Continued) — Lab Sample ID: 500-242591-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Field Temperature	15.56				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	227.5				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.21				mg/L	1		Field Sampling	Total/NA
Specific Conductance	2410.7				umhos/cm	1		Field Sampling	Total/NA
Turbidity	0.60				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_51 — Lab Sample ID: 500-242591-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.026		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.019		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.10		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	1.6		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	110	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00093	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.0010		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	37		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0088		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	6.1		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	56		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	92		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	87		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	360		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	650		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.13		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	18.44				ft	1		Field Sampling	Total/NA
Field pH	7.43				SU	1		Field Sampling	Total/NA
Field Temperature	13.01				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-124.9				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.13				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1505.3				umhos/cm	1		Field Sampling	Total/NA
Turbidity	14.5				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_51_DUP — Lab Sample ID: 500-242591-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.026		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.019		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.11		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	1.5		0.050	0.013	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_51_DUP (Continued) — Lab Sample ID: 500-242591-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	110	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Chromium	0.0011	J	0.0050	0.0011	mg/L	1		6020B	Total Recoverable
Cobalt	0.00089	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.0011		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	37		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0089		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	6.1		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	56		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	93		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	87		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	360		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	630		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.13		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	18.44				ft	1		Field Sampling	Total/NA
Field pH	7.43				SU	1		Field Sampling	Total/NA
Field Temperature	13.01				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-124.9				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.13				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1505.3				umhos/cm	1		Field Sampling	Total/NA
Turbidity	14.5				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_23 — Lab Sample ID: 500-242591-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0066		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00083	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.040		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	8.7		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	110	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00053	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00024	J	0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	75		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.015		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	3.0		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	44		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	56		2.0	0.23	mg/L	2		300.0	Total/NA
Sulfate	430		20	4.1	mg/L	20		300.0	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_23 (Continued) — Lab Sample ID: 500-242591-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	170		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	890		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	8.67				ft	1		Field Sampling	Total/NA
Field pH	7.51				SU	1		Field Sampling	Total/NA
Field Temperature	13.57				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-88.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.08				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1673.5				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.69				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_23_FD — Lab Sample ID: 500-242591-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.0057		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00092	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.040		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	8.6		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	110	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00051	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00022	J	0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	74		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.015		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	2.9		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	44		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	56		2.0	0.23	mg/L	2		300.0	Total/NA
Sulfate	430		20	4.1	mg/L	20		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	170		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	920		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	8.67				ft	1		Field Sampling	Total/NA
Field pH	7.51				SU	1		Field Sampling	Total/NA
Field Temperature	13.57				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-88.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.08				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1673.5				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.69				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_49 — Lab Sample ID: 500-242591-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.024		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_49 (Continued) — Lab Sample ID: 500-242591-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.00028	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.060		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	0.89		0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.0012		0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	100	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0031		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Magnesium	34	F1	0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.023		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	11		0.50	0.11	mg/L	1		6020B	Total Recoverable
Sodium	56		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	95		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	77		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	340		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	580		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	21.67				ft	1		Field Sampling	Total/NA
Field pH	7.19				SU	1		Field Sampling	Total/NA
Field Temperature	14.92				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	11.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.06				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1440.4				umhos/cm	1		Field Sampling	Total/NA
Turbidity	9.23				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_22&D — Lab Sample ID: 500-242591-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.019		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.0012		0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.067		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	1.5		0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	120	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.00059	J	0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00026	J	0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	40		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.0069		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	3.2		0.50	0.11	mg/L	1		6020B	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_22&D (Continued) — Lab Sample ID: 500-242591-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	49		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	93		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	89		5.0	1.0	mg/L	5		300.0	Total/NA
Bicarbonate Alkalinity as CaCO3	350		5.0	3.7	mg/L	1		SM 2320B	Total/NA
Total Dissolved Solids	640		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.11		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	19.08				ft	1		Field Sampling	Total/NA
Field pH	7.42				SU	1		Field Sampling	Total/NA
Field Temperature	16.22				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-112.1				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.72				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1361.1				umhos/cm	1		Field Sampling	Total/NA
Turbidity	2.17				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_22 — Lab Sample ID: 500-242591-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lithium	0.051		0.0050	0.0020	mg/L	1		200.7 Rev 4.4	Total Recoverable
Arsenic	0.00087	J	0.0010	0.00023	mg/L	1		6020B	Total Recoverable
Barium	0.058		0.0025	0.00073	mg/L	1		6020B	Total Recoverable
Boron	3.2		0.050	0.013	mg/L	1		6020B	Total Recoverable
Cadmium	0.0051		0.00050	0.00017	mg/L	1		6020B	Total Recoverable
Calcium	87	B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Cobalt	0.0021		0.0010	0.00040	mg/L	1		6020B	Total Recoverable
Lead	0.00050		0.00050	0.00019	mg/L	1		6020B	Total Recoverable
Magnesium	32		0.20	0.049	mg/L	1		6020B	Total Recoverable
Molybdenum	0.083		0.0050	0.0025	mg/L	1		6020B	Total Recoverable
Potassium	10		0.50	0.11	mg/L	1		6020B	Total Recoverable
Selenium	0.011		0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	55		0.20	0.077	mg/L	1		6020B	Total Recoverable
Chloride	92		5.0	0.58	mg/L	5		300.0	Total/NA
Sulfate	120		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	590		10	4.3	mg/L	1		SM 2540C	Total/NA
Fluoride	0.15		0.10	0.056	mg/L	1		SM 4500 F C	Total/NA
Depth to Water (ft from MP)	18.45				ft	1		Field Sampling	Total/NA
Field pH	7.72				SU	1		Field Sampling	Total/NA
Field Temperature	15.68				Degrees C	1		Field Sampling	Total/NA
Oxidation Reduction Potential	-48.4				millivolts	1		Field Sampling	Total/NA
Oxygen, Dissolved	0.11				mg/L	1		Field Sampling	Total/NA
Specific Conductance	1353.0				umhos/cm	1		Field Sampling	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_22 (Continued) — Lab Sample ID: 500-242591-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Turbidity	0.49				NTU	1		Field Sampling	Total/NA

Client Sample ID: HEN_FB — Lab Sample ID: 500-242591-39

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.031	J B	0.050	0.013	mg/L	1		6020B	Total Recoverable
Calcium	0.045	J B	0.20	0.044	mg/L	1		6020B	Total Recoverable
Selenium	0.0011	J	0.0025	0.00098	mg/L	1		6020B	Total Recoverable
Sodium	0.081	J B	0.20	0.077	mg/L	1		6020B	Total Recoverable

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.

Method Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

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

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

Job ID: 500-242591-5
SDG: HEN_845_804

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-242591-1	HEN_21R	Water	11/14/23 16:22	11/15/23 11:40
500-242591-2	HEN_32	Water	11/14/23 12:44	11/15/23 11:40
500-242591-3	HEN_50	Water	11/14/23 09:47	11/15/23 11:40
500-242591-4	HEN_34	Water	11/14/23 11:26	11/15/23 11:40
500-242591-5	HEN_27	Water	11/14/23 13:37	11/15/23 11:40
500-242591-6	HEN_35	Water	11/15/23 08:56	11/15/23 11:40
500-242591-7	HEN_51	Water	11/15/23 10:42	11/16/23 11:20
500-242591-8	HEN_51_DUP	Water	11/15/23 10:47	11/16/23 11:20
500-242591-9	HEN_23	Water	11/15/23 12:36	11/16/23 11:20
500-242591-10	HEN_23_FD	Water	11/15/23 12:41	11/16/23 11:20
500-242591-11	HEN_49	Water	11/15/23 13:58	11/16/23 11:20
500-242591-12	HEN_22&D	Water	11/15/23 15:37	11/16/23 11:20
500-242591-13	HEN_22	Water	11/15/23 16:18	11/16/23 11:20
500-242591-39	HEN_FB	Water	11/20/23 13:20	11/21/23 08:06
500-242591-56	HEN_YSG_ILRIVER	Water	11/13/23 00:00	12/06/23 07:24

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_21R
Date Collected: 11/14/23 16:22
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-1
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	**0.028**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:11	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 19:14	12/07/23 14:42	1
Arsenic	**0.021**		0.0010	0.00023	mg/L		12/06/23 19:14	12/07/23 14:42	1
Barium	**0.31**		0.0025	0.00073	mg/L		12/06/23 19:14	12/07/23 14:42	1
Beryllium	<0.0010	^1-	0.0010	0.00053	mg/L		12/06/23 19:14	12/07/23 14:42	1
Boron	**2.1**		0.050	0.013	mg/L		12/06/23 19:14	12/20/23 12:33	1
Cadmium	**0.00024**	**J**	0.00050	0.00017	mg/L		12/06/23 19:14	12/07/23 14:42	1
Calcium	**120**		0.20	0.044	mg/L		12/06/23 19:14	12/20/23 12:33	1
Chromium	**0.0040**	**J**	0.0050	0.0011	mg/L		12/06/23 19:14	12/07/23 14:42	1
Cobalt	**0.0019**		0.0010	0.00040	mg/L		12/06/23 19:14	12/07/23 14:42	1
Lead	**0.0037**		0.00050	0.00019	mg/L		12/06/23 19:14	12/07/23 14:42	1
Magnesium	**39**		0.20	0.049	mg/L		12/06/23 19:14	12/07/23 14:42	1
Molybdenum	**0.0085**		0.0050	0.0025	mg/L		12/06/23 19:14	12/07/23 14:42	1
Potassium	**3.0**		0.50	0.11	mg/L		12/06/23 19:14	12/07/23 14:42	1
Selenium	<0.0025	^1-	0.0025	0.00098	mg/L		12/06/23 19:14	12/07/23 14:42	1
Sodium	**47**		0.20	0.077	mg/L		12/06/23 19:14	12/07/23 14:42	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 19:14	12/07/23 14:42	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		12/01/23 13:25	12/04/23 09:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**89**		5.0	0.58	mg/L			11/16/23 09:12	5
Sulfate (EPA 300.0)	**81**		5.0	1.0	mg/L			11/16/23 09:12	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**390**		5.0	3.7	mg/L			11/19/23 17:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/19/23 17:35	1
Total Dissolved Solids (SM 2540C)	**700**		10	4.3	mg/L			11/16/23 23:27	1
Fluoride (SM 4500 F C)	**0.14**		0.10	0.056	mg/L			11/20/23 17:47	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**5.81**				ft			11/14/23 16:22	1
Field pH	**7.70**				SU			11/14/23 16:22	1
Field Temperature	**13.44**				Degrees C			11/14/23 16:22	1
Oxidation Reduction Potential	**-167.1**				millivolts			11/14/23 16:22	1
Oxygen, Dissolved	**0.12**				mg/L			11/14/23 16:22	1
Specific Conductance	**1092.0**				umhos/cm			11/14/23 16:22	1
Turbidity	**31.6**				NTU			11/14/23 16:22	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_32
Date Collected: 11/14/23 12:44
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-2
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	**0.0051**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:15	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 19:14	12/07/23 14:49	1
Arsenic	**0.00037**	**J**	0.0010	0.00023	mg/L		12/06/23 19:14	12/07/23 14:49	1
Barium	**0.043**		0.0025	0.00073	mg/L		12/06/23 19:14	12/07/23 14:49	1
Beryllium	<0.0010	^1-	0.0010	0.00053	mg/L		12/06/23 19:14	12/07/23 14:49	1
Boron	**0.18**		0.050	0.013	mg/L		12/06/23 19:14	12/20/23 12:40	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 19:14	12/07/23 14:49	1
Calcium	**110**		0.20	0.044	mg/L		12/06/23 19:14	12/20/23 12:40	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 19:14	12/07/23 14:49	1
Cobalt	**0.0015**		0.0010	0.00040	mg/L		12/06/23 19:14	12/07/23 14:49	1
Lead	**0.00052**		0.00050	0.00019	mg/L		12/06/23 19:14	12/07/23 14:49	1
Magnesium	**38**		0.20	0.049	mg/L		12/06/23 19:14	12/07/23 14:49	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/06/23 19:14	12/07/23 14:49	1
Potassium	**2.1**		0.50	0.11	mg/L		12/06/23 19:14	12/07/23 14:49	1
Selenium	<0.0025	^1-	0.0025	0.00098	mg/L		12/06/23 19:14	12/07/23 14:49	1
Sodium	**39**		0.20	0.077	mg/L		12/06/23 19:14	12/07/23 14:49	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 19:14	12/07/23 14:49	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		12/01/23 13:25	12/04/23 09:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**67**		2.0	0.23	mg/L			11/16/23 09:27	2
Sulfate (EPA 300.0)	**65**		2.0	0.41	mg/L			11/16/23 09:27	2
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**340**		5.0	3.7	mg/L			11/19/23 17:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/19/23 17:45	1
Total Dissolved Solids (SM 2540C)	**600**		10	4.3	mg/L			11/16/23 23:30	1
Fluoride (SM 4500 F C)	**0.13**		0.10	0.056	mg/L			12/06/23 14:52	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**4.82**				ft			11/14/23 12:44	1
Field pH	**7.21**				SU			11/14/23 12:44	1
Field Temperature	**14.12**				Degrees C			11/14/23 12:44	1
Oxidation Reduction Potential	**46.9**				millivolts			11/14/23 12:44	1
Oxygen, Dissolved	**0.19**				mg/L			11/14/23 12:44	1
Specific Conductance	**957.55**				umhos/cm			11/14/23 12:44	1
Turbidity	**6.37**				NTU			11/14/23 12:44	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_50
Date Collected: 11/14/23 09:47
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-3
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	**0.030**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:19	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 19:14	12/07/23 14:57	1
Arsenic	**0.00076**	**J**	0.0010	0.00023	mg/L		12/06/23 19:14	12/07/23 14:57	1
Barium	**0.087**		0.0025	0.00073	mg/L		12/06/23 19:14	12/07/23 14:57	1
Beryllium	<0.0010	^1-	0.0010	0.00053	mg/L		12/06/23 19:14	12/07/23 14:57	1
Boron	**1.0**		0.050	0.013	mg/L		12/06/23 19:14	12/20/23 12:48	1
Cadmium	**0.0015**		0.00050	0.00017	mg/L		12/06/23 19:14	12/07/23 14:57	1
Calcium	**110**		0.20	0.044	mg/L		12/06/23 19:14	12/20/23 12:48	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 19:14	12/07/23 14:57	1
Cobalt	**0.0036**		0.0010	0.00040	mg/L		12/06/23 19:14	12/07/23 14:57	1
Lead	**0.00023**	**J**	0.00050	0.00019	mg/L		12/06/23 19:14	12/07/23 14:57	1
Magnesium	**23**		0.20	0.049	mg/L		12/06/23 19:14	12/07/23 14:57	1
Molybdenum	**0.047**		0.0050	0.0025	mg/L		12/06/23 19:14	12/07/23 14:57	1
Potassium	**8.3**		0.50	0.11	mg/L		12/06/23 19:14	12/07/23 14:57	1
Selenium	<0.0025	^1-	0.0025	0.00098	mg/L		12/06/23 19:14	12/07/23 14:57	1
Sodium	**51**		0.20	0.077	mg/L		12/06/23 19:14	12/07/23 14:57	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 19:14	12/07/23 14:57	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		12/01/23 13:25	12/04/23 09:53	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			11/16/23 09:42	5
Sulfate (EPA 300.0)	**91**		5.0	1.0	mg/L			11/16/23 09:42	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**290**		5.0	3.7	mg/L			11/19/23 17:55	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/19/23 17:55	1
Total Dissolved Solids (SM 2540C)	**610**		10	4.3	mg/L			11/17/23 00:19	1
Fluoride (SM 4500 F C)	**0.12**		0.10	0.056	mg/L			12/01/23 13:57	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**18.26**				ft			11/14/23 09:47	1
Field pH	**7.54**				SU			11/14/23 09:47	1
Field Temperature	**15.746**				Degrees C			11/14/23 09:47	1
Oxidation Reduction Potential	**206.54**				millivolts			11/14/23 09:47	1
Oxygen, Dissolved	**0.283**				mg/L			11/14/23 09:47	1
Specific Conductance	**135.73**				umhos/cm			11/14/23 09:47	1
Turbidity	**1.25**				NTU			11/14/23 09:47	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_34
Date Collected: 11/14/23 11:26
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-4
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	**0.016**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:32	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		12/07/23 09:15	12/21/23 13:18	1
Arsenic	**0.00069**	**J**	0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:18	1
Barium	**0.11**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:18	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:18	1
Boron	**0.11**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:18	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:18	1
Calcium	**150**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:18	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:18	1
Cobalt	**0.00052**	**J**	0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:18	1
Lead	**0.00069**		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:18	1
Magnesium	**42**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:18	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:18	1
Potassium	**0.48**	**J**	0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:18	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:18	1
Sodium	**49**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:18	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:18	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		12/01/23 13:25	12/04/23 10:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**67**		5.0	0.58	mg/L			11/16/23 09:58	5
Sulfate (EPA 300.0)	**49**		1.0	0.21	mg/L			11/15/23 19:39	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**570**		5.0	3.7	mg/L			11/19/23 18:05	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/19/23 18:05	1
Total Dissolved Solids (SM 2540C)	**700**		10	4.3	mg/L			11/17/23 00:21	1
Fluoride (SM 4500 F C)	**0.15**		0.10	0.056	mg/L			12/01/23 14:02	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**8.46**				ft			11/14/23 11:26	1
Field pH	**7.18**				SU			11/14/23 11:26	1
Field Temperature	**12.57**				Degrees C			11/14/23 11:26	1
Oxidation Reduction Potential	**-110.6**				millivolts			11/14/23 11:26	1
Oxygen, Dissolved	**0.00**				mg/L			11/14/23 11:26	1
Specific Conductance	**1348.9**				umhos/cm			11/14/23 11:26	1
Turbidity	**6.69**				NTU			11/14/23 11:26	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_27
Date Collected: 11/14/23 13:37
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-5
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	**0.023**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:36	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		12/07/23 09:15	12/21/23 13:22	1
Arsenic	**0.0012**		0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:22	1
Barium	**0.084**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:22	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:22	1
Boron	**2.4**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:22	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:22	1
Calcium	**120**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:22	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:22	1
Cobalt	**0.0022**		0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:22	1
Lead	**0.00066**		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:22	1
Magnesium	**37**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:22	1
Molybdenum	**0.0045**	**J**	0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:22	1
Potassium	**3.2**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:22	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:22	1
Sodium	**51**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:22	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:22	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		12/01/23 13:25	12/04/23 10:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**88**		5.0	0.58	mg/L			11/16/23 10:13	5
Sulfate (EPA 300.0)	**120**		5.0	1.0	mg/L			11/16/23 10:13	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**350**		5.0	3.7	mg/L			11/19/23 18:15	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/19/23 18:15	1
Total Dissolved Solids (SM 2540C)	**660**		10	4.3	mg/L			11/17/23 00:24	1
Fluoride (SM 4500 F C)	**0.12**		0.10	0.056	mg/L			12/06/23 14:56	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**3.92**				ft			11/14/23 13:37	1
Field pH	**7.32**				SU			11/14/23 13:37	1
Field Temperature	**12.74**				Degrees C			11/14/23 13:37	1
Oxidation Reduction Potential	**-50.4**				millivolts			11/14/23 13:37	1
Oxygen, Dissolved	**0.38**				mg/L			11/14/23 13:37	1
Specific Conductance	**1206.3**				umhos/cm			11/14/23 13:37	1
Turbidity	**6.12**				NTU			11/14/23 13:37	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_35
Date Collected: 11/15/23 08:56
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-6
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	**0.033**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:41	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		12/07/23 09:15	12/21/23 13:26	1
Arsenic	**0.00090**	**J**	0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:26	1
Barium	**0.047**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:26	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:26	1
Boron	**11**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:26	1
Cadmium	**0.00029**	**J**	0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:26	1
Calcium	**320**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:26	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:26	1
Cobalt	**0.0017**		0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:26	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:26	1
Magnesium	**39**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:26	1
Molybdenum	**0.070**		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:26	1
Potassium	**13**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:26	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:26	1
Sodium	**28**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:26	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:26	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		12/01/23 13:25	12/04/23 10:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**24**		1.0	0.12	mg/L			11/15/23 20:10	1
Sulfate (EPA 300.0)	**730**		50	10	mg/L			11/16/23 10:28	50
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**310**		5.0	3.7	mg/L			11/21/23 12:04	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 12:04	1
Total Dissolved Solids (SM 2540C)	**1500**		10	4.3	mg/L			11/17/23 00:26	1
Fluoride (SM 4500 F C)	**0.15**		0.10	0.056	mg/L			12/01/23 14:13	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**8.17**				ft			11/15/23 08:56	1
Field pH	**6.86**				SU			11/15/23 08:56	1
Field Temperature	**15.56**				Degrees C			11/15/23 08:56	1
Oxidation Reduction Potential	**227.5**				millivolts			11/15/23 08:56	1
Oxygen, Dissolved	**0.21**				mg/L			11/15/23 08:56	1
Specific Conductance	**2410.7**				umhos/cm			11/15/23 08:56	1
Turbidity	**0.60**				NTU			11/15/23 08:56	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_51
Date Collected: 11/15/23 10:42
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-7
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	**0.026**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:45	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		12/07/23 09:15	12/21/23 13:30	1
Arsenic	**0.019**		0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:30	1
Barium	**0.10**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:30	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:30	1
Boron	**1.6**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:30	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:30	1
Calcium	**110**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:30	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:30	1
Cobalt	**0.00093**	**J**	0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:30	1
Lead	**0.0010**		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:30	1
Magnesium	**37**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:30	1
Molybdenum	**0.0088**		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:30	1
Potassium	**6.1**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:30	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:30	1
Sodium	**56**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:30	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:30	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		12/01/23 13:25	12/04/23 10:06	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**92**		5.0	0.58	mg/L			11/17/23 09:20	5
Sulfate (EPA 300.0)	**87**		5.0	1.0	mg/L			11/17/23 09:20	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**360**		5.0	3.7	mg/L			11/21/23 12:13	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 12:13	1
Total Dissolved Solids (SM 2540C)	**650**		10	4.3	mg/L			11/17/23 00:29	1
Fluoride (SM 4500 F C)	**0.13**		0.10	0.056	mg/L			12/06/23 15:01	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**18.44**				ft			11/15/23 10:42	1
Field pH	**7.43**				SU			11/15/23 10:42	1
Field Temperature	**13.01**				Degrees C			11/15/23 10:42	1
Oxidation Reduction Potential	**-124.9**				millivolts			11/15/23 10:42	1
Oxygen, Dissolved	**0.13**				mg/L			11/15/23 10:42	1
Specific Conductance	**1505.3**				umhos/cm			11/15/23 10:42	1
Turbidity	**14.5**				NTU			11/15/23 10:42	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_51_DUP
Date Collected: 11/15/23 10:47
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-8
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	**0.026**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:49	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		12/07/23 09:15	12/21/23 13:33	1
Arsenic	**0.019**		0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:33	1
Barium	**0.11**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:33	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:33	1
Boron	**1.5**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:33	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:33	1
Calcium	**110**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:33	1
Chromium	**0.0011**	**J**	0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:33	1
Cobalt	**0.00089**	**J**	0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:33	1
Lead	**0.0011**		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:33	1
Magnesium	**37**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:33	1
Molybdenum	**0.0089**		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:33	1
Potassium	**6.1**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:33	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:33	1
Sodium	**56**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:33	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:33	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		12/01/23 13:25	12/04/23 10:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**93**		5.0	0.58	mg/L			11/17/23 09:35	5
Sulfate (EPA 300.0)	**87**		5.0	1.0	mg/L			11/17/23 09:35	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**360**		5.0	3.7	mg/L			11/21/23 12:23	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 12:23	1
Total Dissolved Solids (SM 2540C)	**630**		10	4.3	mg/L			11/17/23 00:32	1
Fluoride (SM 4500 F C)	**0.13**		0.10	0.056	mg/L			12/01/23 14:41	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**18.44**				ft			11/15/23 10:47	1
Field pH	**7.43**				SU			11/15/23 10:47	1
Field Temperature	**13.01**				Degrees C			11/15/23 10:47	1
Oxidation Reduction Potential	**-124.9**				millivolts			11/15/23 10:47	1
Oxygen, Dissolved	**0.13**				mg/L			11/15/23 10:47	1
Specific Conductance	**1505.3**				umhos/cm			11/15/23 10:47	1
Turbidity	**14.5**				NTU			11/15/23 10:47	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_23

Date Collected: 11/15/23 12:36
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-9

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	**0.0066**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:53	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		12/07/23 09:15	12/21/23 13:52	1
Arsenic	**0.00083**	**J**	0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:52	1
Barium	**0.040**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:52	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:52	1
Boron	**8.7**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:52	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:52	1
Calcium	**110**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:52	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:52	1
Cobalt	**0.00053**	**J**	0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:52	1
Lead	**0.00024**	**J**	0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:52	1
Magnesium	**75**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:52	1
Molybdenum	**0.015**		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:52	1
Potassium	**3.0**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:52	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:52	1
Sodium	**44**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:52	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:52	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		12/01/23 13:25	12/04/23 10:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**56**		2.0	0.23	mg/L			11/17/23 09:50	2
Sulfate (EPA 300.0)	**430**		20	4.1	mg/L			11/17/23 10:05	20
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**170**		5.0	3.7	mg/L			11/21/23 12:33	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 12:33	1
Total Dissolved Solids (SM 2540C)	**890**		10	4.3	mg/L			11/17/23 00:34	1
Fluoride (SM 4500 F C)	**0.15**		0.10	0.056	mg/L			12/06/23 15:07	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**8.67**				ft			11/15/23 12:36	1
Field pH	**7.51**				SU			11/15/23 12:36	1
Field Temperature	**13.57**				Degrees C			11/15/23 12:36	1
Oxidation Reduction Potential	**-88.1**				millivolts			11/15/23 12:36	1
Oxygen, Dissolved	**0.08**				mg/L			11/15/23 12:36	1
Specific Conductance	**1673.5**				umhos/cm			11/15/23 12:36	1
Turbidity	**2.69**				NTU			11/15/23 12:36	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_23_FD

Date Collected: 11/15/23 12:41
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-10

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	**0.0057**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 19:57	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		12/07/23 09:15	12/21/23 13:58	1
Arsenic	**0.00092**	**J**	0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:58	1
Barium	**0.040**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:58	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:58	1
Boron	**8.6**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:58	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:58	1
Calcium	**110**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:58	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:58	1
Cobalt	**0.00051**	**J**	0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:58	1
Lead	**0.00022**	**J**	0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:58	1
Magnesium	**74**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:58	1
Molybdenum	**0.015**		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:58	1
Potassium	**2.9**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:58	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:58	1
Sodium	**44**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:58	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:58	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		12/01/23 13:25	12/04/23 10:12	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**56**		2.0	0.23	mg/L			11/17/23 10:20	2
Sulfate (EPA 300.0)	**430**		20	4.1	mg/L			11/17/23 10:35	20
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**170**		5.0	3.7	mg/L			11/21/23 12:42	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 12:42	1
Total Dissolved Solids (SM 2540C)	**920**		10	4.3	mg/L			11/17/23 00:37	1
Fluoride (SM 4500 F C)	**0.15**		0.10	0.056	mg/L			12/06/23 15:12	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**8.67**				ft			11/15/23 12:41	1
Field pH	**7.51**				SU			11/15/23 12:41	1
Field Temperature	**13.57**				Degrees C			11/15/23 12:41	1
Oxidation Reduction Potential	**-88.1**				millivolts			11/15/23 12:41	1
Oxygen, Dissolved	**0.08**				mg/L			11/15/23 12:41	1
Specific Conductance	**1673.5**				umhos/cm			11/15/23 12:41	1
Turbidity	**2.69**				NTU			11/15/23 12:41	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_49
Date Collected: 11/15/23 13:58
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-11
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	**0.024**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 20:02	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		12/07/23 09:15	12/21/23 14:02	1
Arsenic	**0.00028**	**J**	0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 14:02	1
Barium	**0.060**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 14:02	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 14:02	1
Boron	**0.89**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 14:02	1
Cadmium	**0.0012**		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 14:02	1
Calcium	**100**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 14:02	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 14:02	1
Cobalt	**0.0031**		0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 14:02	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 14:02	1
Magnesium	**34**	**F1**	0.20	0.049	mg/L		12/07/23 09:15	12/21/23 14:02	1
Molybdenum	**0.023**		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 14:02	1
Potassium	**11**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 14:02	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 14:02	1
Sodium	**56**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 14:02	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 14:02	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		12/01/23 13:25	12/04/23 10:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**95**		5.0	0.58	mg/L			11/17/23 10:51	5
Sulfate (EPA 300.0)	**77**		5.0	1.0	mg/L			11/17/23 10:51	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**340**		5.0	3.7	mg/L			11/21/23 12:51	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 12:51	1
Total Dissolved Solids (SM 2540C)	**580**		10	4.3	mg/L			11/17/23 00:39	1
Fluoride (SM 4500 F C)	**0.15**		0.10	0.056	mg/L			12/06/23 14:38	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**21.67**				ft			11/15/23 13:58	1
Field pH	**7.19**				SU			11/15/23 13:58	1
Field Temperature	**14.92**				Degrees C			11/15/23 13:58	1
Oxidation Reduction Potential	**11.1**				millivolts			11/15/23 13:58	1
Oxygen, Dissolved	**0.06**				mg/L			11/15/23 13:58	1
Specific Conductance	**1440.4**				umhos/cm			11/15/23 13:58	1
Turbidity	**9.23**				NTU			11/15/23 13:58	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_22&D
Date Collected: 11/15/23 15:37
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-12
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	0.019		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 20:31	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		12/07/23 09:15	12/21/23 14:37	1
Arsenic	0.0012		0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 14:37	1
Barium	0.067		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 14:37	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 14:37	1
Boron	1.5		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 14:37	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 14:37	1
Calcium	120	B	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 14:37	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 14:37	1
Cobalt	0.00059	J	0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 14:37	1
Lead	0.00026	J	0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 14:37	1
Magnesium	40		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 14:37	1
Molybdenum	0.0069		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 14:37	1
Potassium	3.2		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 14:37	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 14:37	1
Sodium	49		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 14:37	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 14:37	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		12/01/23 13:25	12/04/23 10:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	93		5.0	0.58	mg/L			11/17/23 11:36	5
Sulfate (EPA 300.0)	89		5.0	1.0	mg/L			11/17/23 11:36	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	350		5.0	3.7	mg/L			11/21/23 13:01	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 13:01	1
Total Dissolved Solids (SM 2540C)	640		10	4.3	mg/L			11/17/23 00:47	1
Fluoride (SM 4500 F C)	0.11		0.10	0.056	mg/L			12/06/23 15:27	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	19.08				ft			11/15/23 15:34	1
Field pH	7.42				SU			11/15/23 15:34	1
Field Temperature	16.22				Degrees C			11/15/23 15:34	1
Oxidation Reduction Potential	-112.1				millivolts			11/15/23 15:34	1
Oxygen, Dissolved	0.72				mg/L			11/15/23 15:34	1
Specific Conductance	1361.1				umhos/cm			11/15/23 15:34	1
Turbidity	2.17				NTU			11/15/23 15:34	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_22
Date Collected: 11/15/23 16:18
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-13
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	**0.051**		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 20:36	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		12/07/23 09:15	12/21/23 14:41	1
Arsenic	**0.00087**	**J**	0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 14:41	1
Barium	**0.058**		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 14:41	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 14:41	1
Boron	**3.2**		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 14:41	1
Cadmium	**0.0051**		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 14:41	1
Calcium	**87**	**B**	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 14:41	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 14:41	1
Cobalt	**0.0021**		0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 14:41	1
Lead	**0.00050**		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 14:41	1
Magnesium	**32**		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 14:41	1
Molybdenum	**0.083**		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 14:41	1
Potassium	**10**		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 14:41	1
Selenium	**0.011**		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 14:41	1
Sodium	**55**		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 14:41	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 14:41	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		12/01/23 13:25	12/04/23 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	**92**		5.0	0.58	mg/L			11/17/23 12:22	5
Sulfate (EPA 300.0)	**120**		5.0	1.0	mg/L			11/17/23 12:22	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	**260**		5.0	3.7	mg/L			11/21/23 13:11	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/21/23 13:11	1
Total Dissolved Solids (SM 2540C)	**590**		10	4.3	mg/L			11/17/23 00:52	1
Fluoride (SM 4500 F C)	**0.15**		0.10	0.056	mg/L			12/01/23 15:12	1

Method: EPA Field Sampling - Field Sampling

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	**18.45**				ft			11/15/23 16:18	1
Field pH	**7.72**				SU			11/15/23 16:18	1
Field Temperature	**15.68**				Degrees C			11/15/23 16:18	1
Oxidation Reduction Potential	**-48.4**				millivolts			11/15/23 16:18	1
Oxygen, Dissolved	**0.11**				mg/L			11/15/23 16:18	1
Specific Conductance	**1353.0**				umhos/cm			11/15/23 16:18	1
Turbidity	**0.49**				NTU			11/15/23 16:18	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_FB
Date Collected: 11/20/23 13:20
Date Received: 11/21/23 08:06

Lab Sample ID: 500-242591-39
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		12/05/23 09:07	12/06/23 14:12	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 22:14	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		12/06/23 09:21	12/20/23 22:14	1
Barium	<0.0025		0.0025	0.00073	mg/L		12/06/23 09:21	12/20/23 22:14	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 16:54	1
Boron	**0.031**	**J B**	0.050	0.013	mg/L		12/06/23 09:21	12/22/23 12:20	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/06/23 09:21	12/20/23 22:14	1
Calcium	**0.045**	**J B**	0.20	0.044	mg/L		12/06/23 09:21	12/20/23 22:14	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/06/23 09:21	12/20/23 22:14	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/06/23 09:21	12/20/23 22:14	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/06/23 09:21	12/20/23 22:14	1
Magnesium	<0.20		0.20	0.049	mg/L		12/06/23 09:21	12/20/23 22:14	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/06/23 09:21	12/20/23 22:14	1
Potassium	<0.50		0.50	0.11	mg/L		12/06/23 09:21	12/20/23 22:14	1
Selenium	**0.0011**	**J**	0.0025	0.00098	mg/L		12/06/23 09:21	12/21/23 16:54	1
Sodium	**0.081**	**J B**	0.20	0.077	mg/L		12/06/23 09:21	12/20/23 22:14	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/06/23 09:21	12/20/23 22:14	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 08:10	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	<1.0		1.0	0.12	mg/L			11/27/23 19:23	1
Sulfate (EPA 300.0)	<1.0		1.0	0.21	mg/L			11/27/23 19:23	1
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/30/23 11:43	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			11/30/23 11:43	1
Total Dissolved Solids (SM 2540C)	<10		10	4.3	mg/L			11/21/23 23:12	1
Fluoride (SM 4500 F C)	<0.10		0.10	0.056	mg/L			12/02/23 02:51	1

Client Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

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

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

Definitions/Glossary

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

Job ID: 590-242591-5
SDG: HEN_845_804

Qualifiers

Metals

Qualifier	Qualifier Description
^1-	Initial Calibration Verification (ICV) is outside acceptance limits, low biased.
^1+	Initial Calibration Verification (ICV) is outside acceptance limits, high biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
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

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

Job ID: 500-242591-5
SDG: HEN_845_804

Metals

Prep Batch: 742774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total Recoverable	Water	200.7	
500-242591-2	HEN_32	Total Recoverable	Water	200.7	
500-242591-3	HEN_50	Total Recoverable	Water	200.7	
500-242591-4	HEN_34	Total Recoverable	Water	200.7	
500-242591-5	HEN_27	Total Recoverable	Water	200.7	
500-242591-6	HEN_35	Total Recoverable	Water	200.7	
500-242591-7	HEN_51	Total Recoverable	Water	200.7	
500-242591-8	HEN_51_DUP	Total Recoverable	Water	200.7	
500-242591-9	HEN_23	Total Recoverable	Water	200.7	
500-242591-10	HEN_23_FD	Total Recoverable	Water	200.7	
500-242591-11	HEN_49	Total Recoverable	Water	200.7	
500-242591-12	HEN_22&D	Total Recoverable	Water	200.7	
500-242591-13	HEN_22	Total Recoverable	Water	200.7	
MB 500-742774/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 500-742774/2-A	Lab Control Sample	Total Recoverable	Water	200.7	
500-242591-11 MS	HEN_49_MS	Total Recoverable	Water	200.7	
500-242591-11 MSD	HEN_49_MSD	Total Recoverable	Water	200.7	
500-242591-11 DU	HEN_49	Total Recoverable	Water	200.7	

Analysis Batch: 743512

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-2	HEN_32	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-3	HEN_50	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-4	HEN_34	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-5	HEN_27	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-6	HEN_35	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-7	HEN_51	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-8	HEN_51_DUP	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-9	HEN_23	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-10	HEN_23_FD	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-11	HEN_49	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-12	HEN_22&D	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-13	HEN_22	Total Recoverable	Water	200.7 Rev 4.4	742774
MB 500-742774/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	742774
LCS 500-742774/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-11 MS	HEN_49_MS	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-11 MSD	HEN_49_MSD	Total Recoverable	Water	200.7 Rev 4.4	742774
500-242591-11 DU	HEN_49	Total Recoverable	Water	200.7 Rev 4.4	742774

Prep Batch: 744714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	7470A	
500-242591-2	HEN_32	Total/NA	Water	7470A	
500-242591-3	HEN_50	Total/NA	Water	7470A	
500-242591-4	HEN_34	Total/NA	Water	7470A	
500-242591-5	HEN_27	Total/NA	Water	7470A	
500-242591-6	HEN_35	Total/NA	Water	7470A	
500-242591-7	HEN_51	Total/NA	Water	7470A	
500-242591-8	HEN_51_DUP	Total/NA	Water	7470A	
500-242591-9	HEN_23	Total/NA	Water	7470A	

QC Association Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Metals (Continued)

Prep Batch: 744714 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-10	HEN_23_FD	Total/NA	Water	7470A	
500-242591-11	HEN_49	Total/NA	Water	7470A	
500-242591-12	HEN_22&D	Total/NA	Water	7470A	
500-242591-13	HEN_22	Total/NA	Water	7470A	
MB 500-744714/12-A	Method Blank	Total/NA	Water	7470A	
LCS 500-744714/13-A	Lab Control Sample	Total/NA	Water	7470A	
500-242591-11 MS	HEN_49_MS	Total/NA	Water	7470A	
500-242591-11 MSD	HEN_49_MSD	Total/NA	Water	7470A	
500-242591-11 DU	HEN_49	Total/NA	Water	7470A	

Prep Batch: 744964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-39	HEN_FB	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	

Analysis Batch: 745000

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	7470A	744714
500-242591-2	HEN_32	Total/NA	Water	7470A	744714
500-242591-3	HEN_50	Total/NA	Water	7470A	744714
500-242591-4	HEN_34	Total/NA	Water	7470A	744714
500-242591-5	HEN_27	Total/NA	Water	7470A	744714
500-242591-6	HEN_35	Total/NA	Water	7470A	744714
500-242591-7	HEN_51	Total/NA	Water	7470A	744714
500-242591-8	HEN_51_DUP	Total/NA	Water	7470A	744714
500-242591-9	HEN_23	Total/NA	Water	7470A	744714
500-242591-10	HEN_23_FD	Total/NA	Water	7470A	744714
500-242591-11	HEN_49	Total/NA	Water	7470A	744714
500-242591-12	HEN_22&D	Total/NA	Water	7470A	744714
500-242591-13	HEN_22	Total/NA	Water	7470A	744714
MB 500-744714/12-A	Method Blank	Total/NA	Water	7470A	744714
LCS 500-744714/13-A	Lab Control Sample	Total/NA	Water	7470A	744714
500-242591-11 MS	HEN_49_MS	Total/NA	Water	7470A	744714
500-242591-11 MSD	HEN_49_MSD	Total/NA	Water	7470A	744714
500-242591-11 DU	HEN_49	Total/NA	Water	7470A	744714

Prep Batch: 745158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-39	HEN_FB	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
500-242591-39	HEN_FB	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

QC Association Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Metals

Prep Batch: 745370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-39	HEN_FB	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
500-242591-39	HEN_FB	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

Prep Batch: 745490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total Recoverable	Water	3005A	
500-242591-2	HEN_32	Total Recoverable	Water	3005A	
500-242591-3	HEN_50	Total Recoverable	Water	3005A	
MB 500-745490/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-745490/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 745613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-4	HEN_34	Total Recoverable	Water	3005A	
500-242591-5	HEN_27	Total Recoverable	Water	3005A	
500-242591-6	HEN_35	Total Recoverable	Water	3005A	
500-242591-7	HEN_51	Total Recoverable	Water	3005A	
500-242591-8	HEN_51_DUP	Total Recoverable	Water	3005A	
500-242591-9	HEN_23	Total Recoverable	Water	3005A	
500-242591-10	HEN_23_FD	Total Recoverable	Water	3005A	
500-242591-11	HEN_49	Total Recoverable	Water	3005A	
500-242591-12	HEN_22&D	Total Recoverable	Water	3005A	
500-242591-13	HEN_22	Total Recoverable	Water	3005A	
MB 500-745613/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-745613/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-242591-11 MS	HEN_49_MS	Total Recoverable	Water	3005A	
500-242591-11 MSD	HEN_49_MSD	Total Recoverable	Water	3005A	
500-242591-11 DU	HEN_49	Total Recoverable	Water	3005A	

Analysis Batch: 745793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total Recoverable	Water	6020B	745490
500-242591-2	HEN_32	Total Recoverable	Water	6020B	745490
500-242591-3	HEN_50	Total Recoverable	Water	6020B	745490

Analysis Batch: 747720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total Recoverable	Water	6020B	745490
500-242591-2	HEN_32	Total Recoverable	Water	6020B	745490
500-242591-3	HEN_50	Total Recoverable	Water	6020B	745490
500-242591-39	HEN_FB	Total Recoverable	Water	6020B	745370
MB 500-745490/1-A	Method Blank	Total Recoverable	Water	6020B	745490
LCS 500-745490/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745490

QC Association Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

Metals

Analysis Batch: 747971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-4	HEN_34	Total Recoverable	Water	6020B	745613
500-242591-5	HEN_27	Total Recoverable	Water	6020B	745613
500-242591-6	HEN_35	Total Recoverable	Water	6020B	745613
500-242591-7	HEN_51	Total Recoverable	Water	6020B	745613
500-242591-8	HEN_51_DUP	Total Recoverable	Water	6020B	745613
500-242591-9	HEN_23	Total Recoverable	Water	6020B	745613
500-242591-10	HEN_23_FD	Total Recoverable	Water	6020B	745613
500-242591-11	HEN_49	Total Recoverable	Water	6020B	745613
500-242591-12	HEN_22&D	Total Recoverable	Water	6020B	745613
500-242591-13	HEN_22	Total Recoverable	Water	6020B	745613
500-242591-39	HEN_FB	Total Recoverable	Water	6020B	745370
MB 500-745370/1-A	Method Blank	Total Recoverable	Water	6020B	745370
MB 500-745613/1-A	Method Blank	Total Recoverable	Water	6020B	745613
LCS 500-745370/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745370
LCS 500-745613/2-A	Lab Control Sample	Total Recoverable	Water	6020B	745613
500-242591-11 MS	HEN_49_MS	Total Recoverable	Water	6020B	745613
500-242591-11 MSD	HEN_49_MSD	Total Recoverable	Water	6020B	745613
500-242591-11 DU	HEN_49	Total Recoverable	Water	6020B	745613

Analysis Batch: 748042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-39	HEN_FB	Total Recoverable	Water	6020B	745370

General Chemistry

Analysis Batch: 742289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-4	HEN_34	Total/NA	Water	300.0	
500-242591-6	HEN_35	Total/NA	Water	300.0	
MB 500-742289/3	Method Blank	Total/NA	Water	300.0	
LCS 500-742289/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 742505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	300.0	
500-242591-2	HEN_32	Total/NA	Water	300.0	
500-242591-3	HEN_50	Total/NA	Water	300.0	
500-242591-4	HEN_34	Total/NA	Water	300.0	
500-242591-5	HEN_27	Total/NA	Water	300.0	
500-242591-6	HEN_35	Total/NA	Water	300.0	
MB 500-742505/3	Method Blank	Total/NA	Water	300.0	
LCS 500-742505/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 742699

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	SM 2540C	
500-242591-2	HEN_32	Total/NA	Water	SM 2540C	
MB 500-742699/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-742699/2	Lab Control Sample	Total/NA	Water	SM 2540C	

QC Association Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

General Chemistry

Analysis Batch: 742700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-3	HEN_50	Total/NA	Water	SM 2540C	
500-242591-4	HEN_34	Total/NA	Water	SM 2540C	
500-242591-5	HEN_27	Total/NA	Water	SM 2540C	
500-242591-6	HEN_35	Total/NA	Water	SM 2540C	
500-242591-7	HEN_51	Total/NA	Water	SM 2540C	
500-242591-8	HEN_51_DUP	Total/NA	Water	SM 2540C	
500-242591-9	HEN_23	Total/NA	Water	SM 2540C	
500-242591-10	HEN_23_FD	Total/NA	Water	SM 2540C	
500-242591-11	HEN_49	Total/NA	Water	SM 2540C	
500-242591-12	HEN_22&D	Total/NA	Water	SM 2540C	
500-242591-13	HEN_22	Total/NA	Water	SM 2540C	
MB 500-742700/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-742700/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-242591-11 MS	HEN_49_MS	Total/NA	Water	SM 2540C	
500-242591-11 MSD	HEN_49_MSD	Total/NA	Water	SM 2540C	
500-242591-12 DU	HEN_22&D	Total/NA	Water	SM 2540C	

Analysis Batch: 742742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-7	HEN_51	Total/NA	Water	300.0	
500-242591-8	HEN_51_DUP	Total/NA	Water	300.0	
500-242591-9	HEN_23	Total/NA	Water	300.0	
500-242591-9	HEN_23	Total/NA	Water	300.0	
500-242591-10	HEN_23_FD	Total/NA	Water	300.0	
500-242591-10	HEN_23_FD	Total/NA	Water	300.0	
500-242591-11	HEN_49	Total/NA	Water	300.0	
500-242591-12	HEN_22&D	Total/NA	Water	300.0	
500-242591-13	HEN_22	Total/NA	Water	300.0	
MB 500-742742/3	Method Blank	Total/NA	Water	300.0	
LCS 500-742742/4	Lab Control Sample	Total/NA	Water	300.0	
500-242591-11 MS	HEN_49_MS	Total/NA	Water	300.0	
500-242591-11 MSD	HEN_49_MSD	Total/NA	Water	300.0	

Analysis Batch: 743003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	SM 2320B	
500-242591-2	HEN_32	Total/NA	Water	SM 2320B	
500-242591-3	HEN_50	Total/NA	Water	SM 2320B	
500-242591-4	HEN_34	Total/NA	Water	SM 2320B	
500-242591-5	HEN_27	Total/NA	Water	SM 2320B	
MB 500-743003/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-743003/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 743238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	SM 4500 F C	
MB 500-743238/59	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-743238/60	Lab Control Sample	Total/NA	Water	SM 4500 F C	

QC Association Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

General Chemistry

Analysis Batch: 743427

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-39	HEN_FB	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
500-242591-6	HEN_35	Total/NA	Water	SM 2320B	
500-242591-7	HEN_51	Total/NA	Water	SM 2320B	
500-242591-8	HEN_51_DUP	Total/NA	Water	SM 2320B	
500-242591-9	HEN_23	Total/NA	Water	SM 2320B	
500-242591-10	HEN_23_FD	Total/NA	Water	SM 2320B	
500-242591-11	HEN_49	Total/NA	Water	SM 2320B	
500-242591-12	HEN_22&D	Total/NA	Water	SM 2320B	
500-242591-13	HEN_22	Total/NA	Water	SM 2320B	
MB 500-743513/3	Method Blank	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
500-242591-39	HEN_FB	Total/NA	Water	300.0	
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
500-242591-39	HEN_FB	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
500-242591-3	HEN_50	Total/NA	Water	SM 4500 F C	
500-242591-4	HEN_34	Total/NA	Water	SM 4500 F C	
500-242591-6	HEN_35	Total/NA	Water	SM 4500 F C	
500-242591-8	HEN_51_DUP	Total/NA	Water	SM 4500 F C	
500-242591-13	HEN_22	Total/NA	Water	SM 4500 F C	
500-242591-39	HEN_FB	Total/NA	Water	SM 4500 F C	
MB 500-744922/3	Method Blank	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 500-744922/4	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
500-242591-2	HEN_32	Total/NA	Water	SM 4500 F C	
500-242591-5	HEN_27	Total/NA	Water	SM 4500 F C	
500-242591-7	HEN_51	Total/NA	Water	SM 4500 F C	
500-242591-9	HEN_23	Total/NA	Water	SM 4500 F C	
500-242591-10	HEN_23_FD	Total/NA	Water	SM 4500 F C	

QC Association Summary

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

Job ID: 500-242591-5
SDG: HEN_845_804

General Chemistry (Continued)

Analysis Batch: 745605 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-11	HEN_49	Total/NA	Water	SM 4500 F C	
500-242591-12	HEN_22&D	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	
500-242591-11 MS	HEN_49_MS	Total/NA	Water	SM 4500 F C	
500-242591-11 MSD	HEN_49_MSD	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
500-242591-1	HEN_21R	Total/NA	Water	Field Sampling	
500-242591-2	HEN_32	Total/NA	Water	Field Sampling	
500-242591-3	HEN_50	Total/NA	Water	Field Sampling	
500-242591-4	HEN_34	Total/NA	Water	Field Sampling	
500-242591-5	HEN_27	Total/NA	Water	Field Sampling	
500-242591-6	HEN_35	Total/NA	Water	Field Sampling	
500-242591-7	HEN_51	Total/NA	Water	Field Sampling	
500-242591-8	HEN_51_DUP	Total/NA	Water	Field Sampling	
500-242591-9	HEN_23	Total/NA	Water	Field Sampling	
500-242591-10	HEN_23_FD	Total/NA	Water	Field Sampling	
500-242591-11	HEN_49	Total/NA	Water	Field Sampling	
500-242591-12	HEN_22&D	Total/NA	Water	Field Sampling	
500-242591-13	HEN_22	Total/NA	Water	Field Sampling	
500-242591-56	HEN_YSG_ILRIVER	Total/NA	Water	Field Sampling	

QC Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 500-742774/1-A
Matrix: Water
Analysis Batch: 743512

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 742774

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	<0.0050		0.0050	0.0020	mg/L		11/17/23 09:11	11/21/23 18:12	1

Lab Sample ID: LCS 500-742774/2-A
Matrix: Water
Analysis Batch: 743512

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 742774

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: 500-242591-11 MS
Matrix: Water
Analysis Batch: 743512

Client Sample ID: HEN_49_MS
Prep Type: Total Recoverable
Prep Batch: 742774

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.024		0.250	0.285		mg/L		104	70 - 130

Lab Sample ID: 500-242591-11 MSD
Matrix: Water
Analysis Batch: 743512

Client Sample ID: HEN_49_MSD
Prep Type: Total Recoverable
Prep Batch: 742774

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.024		0.250	0.296		mg/L		108	70 - 130	4	20

Lab Sample ID: 500-242591-11 DU
Matrix: Water
Analysis Batch: 743512

Client Sample ID: HEN_49
Prep Type: Total Recoverable
Prep Batch: 742774

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lithium	0.024		0.0254		mg/L		4	20

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

QC Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

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
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/06/23 09:21	12/21/23 14:58	1
Selenium	<0.0025		0.0025	0.00098	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
Beryllium	0.0500	0.0462	^1+	mg/L		92	80 - 120
Selenium	0.100	0.0948		mg/L		95	80 - 120

Lab Sample ID: MB 500-745490/1-A
Matrix: Water
Analysis Batch: 747720

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745490

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050	0.013	mg/L		12/06/23 19:14	12/20/23 12:25	1
Calcium	<0.20		0.20	0.044	mg/L		12/06/23 19:14	12/20/23 12:25	1

Lab Sample ID: LCS 500-745490/2-A
Matrix: Water
Analysis Batch: 747720

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745490

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	1.00	0.986		mg/L		99	80 - 120
Calcium	10.0	8.45		mg/L		85	80 - 120

Lab Sample ID: MB 500-745613/1-A
Matrix: Water
Analysis Batch: 747971

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 745613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.0013	mg/L		12/07/23 09:15	12/21/23 13:11	1
Arsenic	<0.0010		0.0010	0.00023	mg/L		12/07/23 09:15	12/21/23 13:11	1
Barium	<0.0025		0.0025	0.00073	mg/L		12/07/23 09:15	12/21/23 13:11	1
Beryllium	<0.0010	^1+	0.0010	0.00053	mg/L		12/07/23 09:15	12/21/23 13:11	1
Boron	<0.050		0.050	0.013	mg/L		12/07/23 09:15	12/21/23 13:11	1
Cadmium	<0.00050		0.00050	0.00017	mg/L		12/07/23 09:15	12/21/23 13:11	1
Calcium	0.0541	J	0.20	0.044	mg/L		12/07/23 09:15	12/21/23 13:11	1
Chromium	<0.0050		0.0050	0.0011	mg/L		12/07/23 09:15	12/21/23 13:11	1
Cobalt	<0.0010		0.0010	0.00040	mg/L		12/07/23 09:15	12/21/23 13:11	1
Lead	<0.00050		0.00050	0.00019	mg/L		12/07/23 09:15	12/21/23 13:11	1
Magnesium	<0.20		0.20	0.049	mg/L		12/07/23 09:15	12/21/23 13:11	1
Molybdenum	<0.0050		0.0050	0.0025	mg/L		12/07/23 09:15	12/21/23 13:11	1
Potassium	<0.50		0.50	0.11	mg/L		12/07/23 09:15	12/21/23 13:11	1
Selenium	<0.0025		0.0025	0.00098	mg/L		12/07/23 09:15	12/21/23 13:11	1
Sodium	<0.20		0.20	0.077	mg/L		12/07/23 09:15	12/21/23 13:11	1
Thallium	<0.0020		0.0020	0.00057	mg/L		12/07/23 09:15	12/21/23 13:11	1

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

Lab Sample ID: LCS 500-745613/2-A
Matrix: Water
Analysis Batch: 747971

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 745613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.500	0.490		mg/L		98	80 - 120
Arsenic	0.100	0.0985		mg/L		98	80 - 120
Barium	0.500	0.496		mg/L		99	80 - 120
Beryllium	0.0500	0.0471	^1+	mg/L		94	80 - 120
Boron	1.00	1.00		mg/L		100	80 - 120
Cadmium	0.0500	0.0485		mg/L		97	80 - 120
Calcium	10.0	8.64		mg/L		86	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.502		mg/L		100	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Magnesium	10.0	9.88		mg/L		99	80 - 120
Molybdenum	1.00	0.912		mg/L		91	80 - 120
Potassium	10.0	9.85		mg/L		99	80 - 120
Selenium	0.100	0.0982		mg/L		98	80 - 120
Sodium	10.0	9.81		mg/L		98	80 - 120
Thallium	0.100	0.103		mg/L		103	80 - 120

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 747971

Client Sample ID: HEN_49_MS
Prep Type: Total Recoverable
Prep Batch: 745613

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	<0.0030		0.500	0.488		mg/L		98	75 - 125
Arsenic	0.00028	J	0.100	0.0850		mg/L		85	75 - 125
Barium	0.060		0.500	0.543		mg/L		97	75 - 125
Beryllium	<0.0010	^1+	0.0500	0.0413	^1+	mg/L		83	75 - 125
Boron	0.89		1.00	1.67		mg/L		79	75 - 125
Cadmium	0.0012		0.0500	0.0482		mg/L		94	75 - 125
Calcium	100	B	10.0	109	4	mg/L		39	75 - 125
Chromium	<0.0050		0.200	0.191		mg/L		95	75 - 125
Cobalt	0.0031		0.500	0.476		mg/L		95	75 - 125
Lead	<0.00050		0.100	0.103		mg/L		103	75 - 125
Magnesium	34	F1	10.0	41.0	F1	mg/L		74	75 - 125
Molybdenum	0.023		1.00	0.950		mg/L		93	75 - 125
Potassium	11		10.0	20.2		mg/L		88	75 - 125
Selenium	<0.0025		0.100	0.0826		mg/L		83	75 - 125
Sodium	56		10.0	63.2	4	mg/L		69	75 - 125
Thallium	<0.0020		0.100	0.104		mg/L		104	75 - 125

Lab Sample ID: 500-242591-11 MSD
Matrix: Water
Analysis Batch: 747971

Client Sample ID: HEN_49_MSD
Prep Type: Total Recoverable
Prep Batch: 745613

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.501		mg/L		100	75 - 125	3	20
Arsenic	0.00028	J	0.100	0.0840		mg/L		84	75 - 125	1	20
Barium	0.060		0.500	0.555		mg/L		99	75 - 125	2	20
Beryllium	<0.0010	^1+	0.0500	0.0477	^1+	mg/L		95	75 - 125	14	20
Boron	0.89		1.00	1.73		mg/L		84	75 - 125	3	20

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

Lab Sample ID: 500-242591-11 MSD — **Client Sample ID: HEN_49_MSD**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 747971 — **Prep Batch: 745613**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cadmium	0.0012		0.0500	0.0494		mg/L		96	75 - 125	2	20
Calcium	100	B	10.0	109	4	mg/L		38	75 - 125	0	20
Chromium	<0.0050		0.200	0.190		mg/L		95	75 - 125	0	20
Cobalt	0.0031		0.500	0.477		mg/L		95	75 - 125	0	20
Lead	<0.00050		0.100	0.105		mg/L		105	75 - 125	2	20
Magnesium	34	F1	10.0	41.5		mg/L		79	75 - 125	1	20
Molybdenum	0.023		1.00	0.967		mg/L		94	75 - 125	2	20
Potassium	11		10.0	20.3		mg/L		89	75 - 125	0	20
Selenium	<0.0025		0.100	0.0814		mg/L		81	75 - 125	1	20
Sodium	56		10.0	63.5	4	mg/L		72	75 - 125	0	20
Thallium	<0.0020		0.100	0.105		mg/L		105	75 - 125	1	20

Lab Sample ID: 500-242591-11 DU — **Client Sample ID: HEN_49**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 747971 — **Prep Batch: 745613**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Arsenic	0.00028	J	0.000288	J	mg/L		3	20
Barium	0.060		0.0586		mg/L		2	20
Beryllium	<0.0010	^1+	<0.0010	^1+	mg/L		NC	20
Boron	0.89		0.779		mg/L		13	20
Cadmium	0.0012		0.00122		mg/L		0.7	20
Calcium	100	B	105		mg/L		0.2	20
Chromium	<0.0050		<0.0050		mg/L		NC	20
Cobalt	0.0031		0.00323		mg/L		2	20
Lead	<0.00050		<0.00050		mg/L		NC	20
Magnesium	34	F1	33.5		mg/L		0.1	20
Molybdenum	0.023		0.0233		mg/L		0.8	20
Potassium	11		11.4		mg/L		0.5	20
Selenium	<0.0025		<0.0025		mg/L		NC	20
Sodium	56		56.7		mg/L		0.6	20
Thallium	<0.0020		<0.0020		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-744714/12-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 745000 — **Prep Batch: 744714**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000079	mg/L		12/01/23 13:25	12/04/23 09:45	1

Lab Sample ID: LCS 500-744714/13-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 745000 — **Prep Batch: 744714**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00201	0.00207		mg/L		103	80 - 120

QC Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 500-242591-11 MS — **Client Sample ID: HEN_49_MS**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 745000 — **Prep Batch: 744714**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	<0.00020		0.00100	0.00103		mg/L		103	75 - 125

Lab Sample ID: 500-242591-11 MSD — **Client Sample ID: HEN_49_MSD**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 745000 — **Prep Batch: 744714**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	<0.00020		0.00100	0.00107		mg/L		107	75 - 125	4	20

Lab Sample ID: 500-242591-11 DU — **Client Sample ID: HEN_49**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 745000 — **Prep Batch: 744714**

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

Lab Sample ID: MB 500-744964/12-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 745181 — **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 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 745181 — **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 500-742289/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			11/15/23 09:02	1
Sulfate	<1.0		1.0	0.21	mg/L			11/15/23 09:02	1

Lab Sample ID: LCS 500-742289/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 742289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	20.0	20.1		mg/L		100	90 - 110
Sulfate	20.0	19.9		mg/L		100	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 500-742505/3
Matrix: Water
Analysis Batch: 742505

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			11/16/23 08:42	1
Sulfate	<1.0		1.0	0.21	mg/L			11/16/23 08:42	1

Lab Sample ID: LCS 500-742505/4
Matrix: Water
Analysis Batch: 742505

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	19.9		mg/L		100	90 - 110
Sulfate	20.0	20.3		mg/L		102	90 - 110

Lab Sample ID: MB 500-742742/3
Matrix: Water
Analysis Batch: 742742

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			11/17/23 08:49	1
Sulfate	<1.0		1.0	0.21	mg/L			11/17/23 08:49	1

Lab Sample ID: LCS 500-742742/4
Matrix: Water
Analysis Batch: 742742

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	20.0		mg/L		100	90 - 110
Sulfate	20.0	20.2		mg/L		101	90 - 110

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 742742

Client Sample ID: HEN_49_MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	95		50.0	150		mg/L		110	80 - 120
Sulfate	77		50.0	124		mg/L		94	80 - 120

Lab Sample ID: 500-242591-11 MSD
Matrix: Water
Analysis Batch: 742742

Client Sample ID: HEN_49_MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	95		50.0	151		mg/L		112	80 - 120	1	20
Sulfate	77		50.0	125		mg/L		97	80 - 120	1	20

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

QC Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Method: 300.0 - Anions, Ion Chromatography

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 500-743003/3
Matrix: Water
Analysis Batch: 743003

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			11/19/23 15:17	1
Carbonate Alkalinity as CaCO3	<5.0		5.0	3.7	mg/L			11/19/23 15:17	1

Lab Sample ID: LCS 500-743003/4
Matrix: Water
Analysis Batch: 743003

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

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

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 500-743513/4
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

QC Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

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

Lab Sample ID: MB 500-742699/1
Matrix: Water
Analysis Batch: 742699

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			11/16/23 22:31	1

Lab Sample ID: LCS 500-742699/2
Matrix: Water
Analysis Batch: 742699

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	258		mg/L		103	80 - 120

Lab Sample ID: MB 500-742700/1
Matrix: Water
Analysis Batch: 742700

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			11/17/23 00:14	1

Lab Sample ID: LCS 500-742700/2
Matrix: Water
Analysis Batch: 742700

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	240		mg/L		96	80 - 120

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 742700

Client Sample ID: HEN_49_MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	580		250	788		mg/L		82	75 - 125

Lab Sample ID: 500-242591-11 MSD
Matrix: Water
Analysis Batch: 742700

Client Sample ID: HEN_49_MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids	580		250	786		mg/L		81	75 - 125	0	20

Lab Sample ID: 500-242591-12 DU
Matrix: Water
Analysis Batch: 742700

Client Sample ID: HEN_22&D
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	640		608		mg/L		5	5

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

QC Sample Results

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

Job ID: 590-242591-5
SDG: HEN_845_804

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

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 500-743238/59
Matrix: Water
Analysis Batch: 743238

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			11/20/23 16:22	1

Lab Sample ID: LCS 500-743238/60
Matrix: Water
Analysis Batch: 743238

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

Lab Sample ID: MB 500-744922/3
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 12:01	1

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

QC Sample Results

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

Job ID: 500-242591-5
SDG: HEN_845_804

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-744922/4
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	9.77		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

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

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 745605

Client Sample ID: HEN_49_MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.15		5.00	4.90		mg/L		95	75 - 125

Lab Sample ID: 500-242591-11 MSD
Matrix: Water
Analysis Batch: 745605

Client Sample ID: HEN_49_MSD
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.15		5.00	4.92		mg/L		95	75 - 125	0	20

Lab Chronicle

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_21R
Date Collected: 11/14/23 16:22
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:11
Total Recoverable	Prep	3005A			745490	MC	EET CHI	12/06/23 19:14 - 12/07/23 00:14 [1]
Total Recoverable	Analysis	6020B		1	745793	BJH	EET CHI	12/07/23 14:42
Total Recoverable	Prep	3005A			745490	MC	EET CHI	12/06/23 19:14 - 12/07/23 00:14 [1]
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 12:33
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 09:49
Total/NA	Analysis	300.0		5	742505	NMB	EET CHI	11/16/23 09:12
Total/NA	Analysis	SM 2320B		1	743003	SO	EET CHI	11/19/23 17:35
Total/NA	Analysis	SM 2540C		1	742699	CLB	EET CHI	11/16/23 23:27
Total/NA	Analysis	SM 4500 F C		1	743238	SO	EET CHI	11/20/23 17:47
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/14/23 16:22

Client Sample ID: HEN_32
Date Collected: 11/14/23 12:44
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:15
Total Recoverable	Prep	3005A			745490	MC	EET CHI	12/06/23 19:14 - 12/07/23 00:14 [1]
Total Recoverable	Analysis	6020B		1	745793	BJH	EET CHI	12/07/23 14:49
Total Recoverable	Prep	3005A			745490	MC	EET CHI	12/06/23 19:14 - 12/07/23 00:14 [1]
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 12:40
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 09:51
Total/NA	Analysis	300.0		2	742505	NMB	EET CHI	11/16/23 09:27
Total/NA	Analysis	SM 2320B		1	743003	SO	EET CHI	11/19/23 17:45
Total/NA	Analysis	SM 2540C		1	742699	CLB	EET CHI	11/16/23 23:30
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 14:52
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/14/23 12:44

Client Sample ID: HEN_50
Date Collected: 11/14/23 09:47
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:19
Total Recoverable	Prep	3005A			745490	MC	EET CHI	12/06/23 19:14 - 12/07/23 00:14 [1]
Total Recoverable	Analysis	6020B		1	745793	BJH	EET CHI	12/07/23 14:57
Total Recoverable	Prep	3005A			745490	MC	EET CHI	12/06/23 19:14 - 12/07/23 00:14 [1]
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 12:48

Lab Chronicle

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_50
Date Collected: 11/14/23 09:47
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 09:53
Total/NA	Analysis	300.0		5	742505	NMB	EET CHI	11/16/23 09:42
Total/NA	Analysis	SM 2320B		1	743003	SO	EET CHI	11/19/23 17:55
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:19
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 13:57
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/14/23 09:47

Client Sample ID: HEN_34
Date Collected: 11/14/23 11:26
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:32
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 13:18
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:00
Total/NA	Analysis	300.0		1	742289	NMB	EET CHI	11/15/23 19:39
Total/NA	Analysis	300.0		5	742505	NMB	EET CHI	11/16/23 09:58
Total/NA	Analysis	SM 2320B		1	743003	SO	EET CHI	11/19/23 18:05
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:21
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 14:02
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/14/23 11:26

Client Sample ID: HEN_27
Date Collected: 11/14/23 13:37
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:36
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 13:22
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:02
Total/NA	Analysis	300.0		5	742505	NMB	EET CHI	11/16/23 10:13
Total/NA	Analysis	SM 2320B		1	743003	SO	EET CHI	11/19/23 18:15
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:24
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 14:56
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/14/23 13:37

Lab Chronicle

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_35
Date Collected: 11/15/23 08:56
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:41
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 13:26
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:04
Total/NA	Analysis	300.0		1	742289	NMB	EET CHI	11/15/23 20:10
Total/NA	Analysis	300.0		50	742505	NMB	EET CHI	11/16/23 10:28
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 12:04
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:26
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 14:13
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 08:56

Client Sample ID: HEN_51
Date Collected: 11/15/23 10:42
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:45
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 13:30
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:06
Total/NA	Analysis	300.0		5	742742	NMB	EET CHI	11/17/23 09:20
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 12:13
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:29
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 15:01
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 10:42

Client Sample ID: HEN_51_DUP
Date Collected: 11/15/23 10:47
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:49
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 13:33
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:08
Total/NA	Analysis	300.0		5	742742	NMB	EET CHI	11/17/23 09:35
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 12:23

Lab Chronicle

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_51_DUP
Date Collected: 11/15/23 10:47
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:32
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/01/23 14:41
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 10:47

Client Sample ID: HEN_23
Date Collected: 11/15/23 12:36
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:53
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 13:52
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:10
Total/NA	Analysis	300.0		2	742742	NMB	EET CHI	11/17/23 09:50
Total/NA	Analysis	300.0		20	742742	NMB	EET CHI	11/17/23 10:05
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 12:33
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:34
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 15:07
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 12:36

Client Sample ID: HEN_23_FD
Date Collected: 11/15/23 12:41
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 19:57
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 13:58
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:12
Total/NA	Analysis	300.0		2	742742	NMB	EET CHI	11/17/23 10:20
Total/NA	Analysis	300.0		20	742742	NMB	EET CHI	11/17/23 10:35
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 12:42
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:37
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 15:12
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 12:41

Lab Chronicle

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_49
Date Collected: 11/15/23 13:58
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 20:02
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 14:02
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:14
Total/NA	Analysis	300.0		5	742742	NMB	EET CHI	11/17/23 10:51
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 12:51
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:39
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 14:38
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 13:58

Client Sample ID: HEN_22&D
Date Collected: 11/15/23 15:37
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 20:31
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 14:37
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:27
Total/NA	Analysis	300.0		5	742742	NMB	EET CHI	11/17/23 11:36
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 13:01
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:47
Total/NA	Analysis	SM 4500 F C		1	745605	SO	EET CHI	12/06/23 15:27
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 15:34

Client Sample ID: HEN_22
Date Collected: 11/15/23 16:18
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total Recoverable	Prep	200.7			742774	BDE	EET CHI	11/17/23 09:11 - 11/17/23 09:41 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	743512	SJ	EET CHI	11/21/23 20:36
Total Recoverable	Prep	3005A			745613	BDE	EET CHI	12/07/23 09:15 - 12/07/23 09:45 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 14:41
Total/NA	Prep	7470A			744714	MJG	EET CHI	12/01/23 13:25 - 12/01/23 15:25 [1]
Total/NA	Analysis	7470A		1	745000	MJG	EET CHI	12/04/23 10:29
Total/NA	Analysis	300.0		5	742742	NMB	EET CHI	11/17/23 12:22
Total/NA	Analysis	SM 2320B		1	743513	SO	EET CHI	11/21/23 13:11
Total/NA	Analysis	SM 2540C		1	742700	CLB	EET CHI	11/17/23 00:52

Lab Chronicle

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

Job ID: 500-242591-5
SDG: HEN_845_804

Client Sample ID: HEN_22
Date Collected: 11/15/23 16:18
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-13
Matrix: Water

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 15:12
Total/NA	Analysis	Field Sampling		1	745357	DN	EET CHI	11/15/23 16:18

Client Sample ID: HEN_FB
Date Collected: 11/20/23 13:20
Date Received: 11/21/23 08:06

Lab Sample ID: 500-242591-39
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 [1]
Total Recoverable	Analysis	200.7 Rev 4.4		1	745468	RN	EET CHI	12/06/23 14:12
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 [1]
Total Recoverable	Analysis	6020B		1	747720	RN	EET CHI	12/20/23 22:14
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 [1]
Total Recoverable	Analysis	6020B		1	747971	SJ	EET CHI	12/21/23 16:54
Total Recoverable	Prep	3005A			745370	BDE	EET CHI	12/06/23 09:21 - 12/06/23 09:51 [1]
Total Recoverable	Analysis	6020B		1	748042	RN	EET CHI	12/22/23 12:20
Total/NA	Prep	7470A			744964	MJG	EET CHI	12/04/23 09:40 - 12/04/23 11:40 [1]
Total/NA	Analysis	7470A		1	745181	MJG	EET CHI	12/05/23 08:10
Total/NA	Analysis	300.0		1	743830	NMB	EET CHI	11/27/23 19:23
Total/NA	Analysis	SM 2320B		1	744626	SO	EET CHI	11/30/23 11:43
Total/NA	Analysis	SM 2540C		1	743427	CLB	EET CHI	11/21/23 23:12
Total/NA	Analysis	SM 4500 F C		1	744922	SO	EET CHI	12/02/23 02:51

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

[1] 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

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

Job ID: 590-242591-5
SDG: HEN_845_804

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

500-242591 COC

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE:	IL	

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	D
WATER	W
WASTE WATER	WT
PRODUCT	W
SOIL/SOLID	W
OIL	P
WIPE	SL
AIR	OL
OTHER	W
TISSUE	P
	AR
	OT
	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_21R	W	G	11/14/23	1622		8	4		4									X				X	X	X		X			
2																														
3																														
4																														
5					TJD 11/15/23																									
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-15-23	09:15		11-15-23	945	
		11-15-23	1140		11/15/23	1140	

CUSTODY SEALS#
2299554 &
2299555

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	Trevor Dempsey				
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 11-15-23 / 11-15-23				

Trevor Dempsey

01/04/24 (Rev. 1)

Temp: 5.9 5.7, 5.4

COC# HEN-002

500-242591

CHAIN-OF-CUSTODY / Analytical Request Document

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Page 1 of 1

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE:	IL	

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	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_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_32	W	G	11-14-23	12:44		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	[signature] RAMBOLL	11-15-23	09:15	[signature]	11-15-23	0945	
	[signature]	11-15-23	1140	[signature]	11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #
2299554 &
2299555

COC #: HEN - QR3

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

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Section D Required Client Information

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

ITEM #	SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_50	GW	G	11-14-23	0947		8	4		4									X				X	X	X		X		
2																													
3																													
4																													
5																													
6					TJD	11-15-23																							
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	Trevor Dempsey / Ramboll	11-15-23	0915		11/15/23	0915	
		11/15/23	1140		11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Trevor Dempsey

SIGNATURE of SAMPLER: Trevor Dempsey

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Custody Seals #:
2299554
2299555

QC KLT 11-15-23

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

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_34	W	G	11-14-23	11:26		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-15-23	09'15		11/15/23	0945	
		11-15-23	1600		11/15/23	1148	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #

2299564 &

2299565

QC: TJD

500-242597

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

Section A Required Client Information.

Company:	Vistra Corp
Address	133 S 4th, Suite 206
	Springfield, IL 62701
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information.

Report To:	Brian Voelker
Copy To:	Jason Stuckey
Purchase Order No.	
Project Name:	2304 GW SAMPLING
Project Number:	50022357

Section C Invoice Information

Attention	Jason Stuckey
Company Name:	Vistra Corp
Address	see Section A
Quote Reference:	
Project Manager:	PAGANO, NIKKI
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_27	W	G	11-14-23	13.37	0.0	8	4		4									X				X	X	X		X		
2						0.0																							
3						11-15-23																							
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-15-23	09:15		11/15/23	0945	
		11-15-23	1040		11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #
2299564 &
2299C65

QC: TJD

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

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE:	IL	

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	Section D Required Client Information: SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West		Residual Chlorine (Y/N)	Project No./ Lab I.D.
																Requested Analysis Filtered (Y/N)														
1	HEN_35	WG		11-15-23	08:56		8	4		4									X				X	X	X		X			
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

11/15/23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0		11-15-23	09 15		11/15/23	0915	
		11/15/23	1140		11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #

2299564 & 2299565

QC: TJD

COC# HEN-Q07

500-242591 COC

Required Client Information		Required Project Information		Invoice Information	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention	Jason Stuckey
Address	13498 E 900th St	Copy To	Jason Stuckey	Company Name	Vistra Corp
				Address	see Section A
Email To	Brian.Voelker@VistraCorp.com	Purchase Order No		Quote Reference:	
Phone	(217) 753-8911 Fax:	Project Name	23Q4 GW SAMPLING	Project Manager	NIKKI PAGANO
Requested Due Date/TAT:	10 day	Project Number	2285	Profile #:	

REGULATORY AGENCY: NPDES | GROUND WATER | DRINKING WATER | UST | RCRA | OTHER

Site Location: STATE: IL

Requested Analysis Filtered (Y/N) – SELECT

Section D Required Client Information

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

ITEM #	SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802_805	HEN_845_803	HEN_845_804	HEN_WPCP_EAST	HEN_WPCP_WEST	HEN_000_H	HEN_000_RAD	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_49																											
2	HEN_50																											
3	HEN_51	W	G	11-15-23	10 42		8	4		4									X				X		X	X	X	
4	HEN_52																											
5	HEN_54																											
6	HEN_55																											
7	SG02																											
8	XSG01																											
9	Field Blank																											
10	HEN-51-DUP	W	G	11-15-23	10.47		8	4		4									X				X		X	X	X	
11																												
12																												
13																												
14																												
15																												
16																												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-16-23	09:30		11/16/23	0730	
		11-16-23	1120		11/16/23	1120	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 11-16-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

EUROFINS COURIER PICKUP

3.4→3.2, 4.4→4.2, 3.2→3.0 QC: TJD

HEN 0008

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

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention	Jason Stuckey
Address	133 S 4th, Suite 206	Copy To:	Jason Stuckey	Company Name	Vistra Corp
	Springfield, IL 62701			Address	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.		Quote Reference	
Phone:	(217) 753-8911 Fax:	Project Name:	2304 GW SAMPLING	Project Manager:	NIKKI PAGANO
Requested Due Date/TAT	10 day	Project Number:	50022357	Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Requested Analysis Filtered (Y/N) SELECT

Section D Required Client Information

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West	Residual Chlorine (Y/N)	Project No./ Lab I.D.
																Y/N			Y				Y	Y		Y		
1	HEN_23	W	G	11-15-23	12:34														X				X	X	X		X		
2	HEN_23_FD	W	G	11-15-23	12:41														X				X	X	X		X		
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

18 9

11/15/23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-16-23	09:30		11/16/23	0930	
		11-16-23	1120		11/16/23	1120	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #'s 11/16/22

EUROFINS COURIER PICKUP

QC TJD

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

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N) - SELECT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	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_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
Y/N																			Y				Y		Y		Y				
1	HEN_49	W	G	11-15-23	13:58		8	4		4									X				X	X	X		X				
2	HEN_49 MS/MSD	W	G	11-15-23	13:58		16	8		8									X				X	X	X		X				
3																															
4																															
5																															
6																															
7																															
8																															
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11																															
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13																															
14																															
15																															
16																															

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	[signature]	11-16-23	09:30	[signature]	11-16-23	0930	
	[signature]	11-16-23	1120	[signature]	11/16/23	1120	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS 11-16-23 # — EUREKA, COURIER PICKUP

QC: [illegible]

COC: HEN 804

500-242591

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 11/16/23 of 1

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

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

Requested Analysis Filtered (Y/N) SELECT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./Lab I.D.
Filtered (Y/N)																			Y				Y		Y		Y				
1	HEN_22&D	W	G	11-15-23	15:34		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
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9																															
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11																															
12																															
13																															
14																															
15																															
16																															

KB 11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	[signature] RAMBOLL	11-16-23	09:30	[signature]	11-16-23	0930	
	[signature]	11-16-23	11:50	[signature]	11/16/23	11:20	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS [signature] 11-16-23
EUROFINS
COURIER PICKUP

QC: TJD

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

Section A Required Client Information		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp	Report To	Brian Voelker	Attention	Jason Stuckey
Address:	133 S 4th, Suite 206	Copy To:	Jason Stuckey	Company Name	Vistra Corp
	Springfield, IL 62701			Address	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.		Quote Reference	
Phone	(217) 753-8911 Fax:	Project Name	2304 GW SAMPLING	Project Manager	NIKKI PAGANO
Requested Due Date/TAT:	10 day	Project Number	50022357	Profile #:	

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N) - SELECT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N)	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
	Analysis Test (Y/N)																Y		Y				Y	Y	Y		Y				
1	HEN_22	GW	G	11-15-23	16:18		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0		11-11-23	09:30		11/16/23	930	
		11-16-23	1120		11/16/23	1120	

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER	KRISTEN THEESFELD		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER		DATE Signed (MM/DD/YY) 11-15-23				

EUROFINS COURIER PICKUP

QC TJP

HEN 0032
500-242591

Page 1 of 1

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_FB	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
									Requested Analysis Filtered (Y/N)																							
1	HEN_FB	DRINKING WATER DW, WATER WT, WASTE WATER WW, PRODUCT P, SOIL/SOLID SL, OIL OL, WIPE WP, AIR AR, OTHER OT, TISSUE TS	WG	G	11-20-23	1320		16	6	3	3	3	1			X			X			X	X	X	X				short holds-NO2
2								16																						
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

11-20-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0		11-21-23	0800		11/21/23	0806	

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		DATE Signed (MM/DD/YY) 11-20-23				

DROP @ LAB
BTEX IN COOLER
W/455

* Dissolved metals were filtered in field, and need preservative added at lab

QC TJD

01/04/24 (Rev. 1)

Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-5
SDG Number: HEN_845_804

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	

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN
Client: VISTRA
Project Number: _____ Task #: _____
Start Date: 11-17-23 Time: 09:59
Field Personnel: KLT
Finish Date: 11-17-23 Time: 11:10

WELL INFORMATION

Well ID: 13
Casing ID: _____ Inches
Screen Interval: _____
Borehole Diameter: _____ Inches
Filter Pack Interval: _____

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth: _____
Stabilized Pumping Rate: _____

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	51.05	10:00	51.07	10:21
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot: _____
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? ☐ Yes ☒ 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	10:06		51.06	0.01	16.44	7.33	922.24	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	17.79	7.46	921.75	1.41	0.26	169.7	↓
SAMPLE	10:21	22gal	51.07	0.02	17.76	7.46	922.23	1.42	0.26	168.3	↓

11-17-23

FLOW RATE = 375 mL/min

USED 2ND TO LAST TURB.

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

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

WELL INFORMATION

Well ID: 50
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	18.26	0842	18.27	0947
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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	0903		18.26	0.00	11.179	7.099	2.758	10.912	44.9	257.3	Milky
purge	0907		↓	↓	14.569	7.338	960.83	1.513	29.2	254.08	clear
	0911		18.25	-0.01	12.86	7.436	927.49	1.524	21.7	255.89	clear
	0915		↓	↓	12.48	7.487	214.413	1.476	22.9	254.12	clear
	0919		18.27	0.01	15.53	7.485	1014.09	0.758	13.7	244.15	clear
	0923		18.27	0.01	15.5369	7.4851	142.886	0.201	9.72	235.16	clear
	0927		↓	↓	15.611	7.53	183.95	0.201	7.52	228.39	clear
↓	0931		18.27	0.01	15.613	7.53	80.07	0.246	5.40	222.48	

flow - 350 mL/min

1 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

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

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	0.268	3.43	218.15	Clear
↓	0939		18.27	0.01	15.716	7.54	1222.49	0.2579	2.14	214.59	Clear
↓	0943		18.27	0.01	15.721	7.54	917.148	0.2438	1.60	210.44	Clear
SAMPLE	0947	~7 GAL	18.27	0.01	15.746	7.54	135.73	0.283	1.25	206.54	clear

11-14-23

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: HEN P.P. Client: VISTRA
Project Number: Task #: Start Date: 8/14/23 Time: 1056
Field Personnel: KLT, TJD Finish Date: 8/14/23 Time:

WELL INFORMATION

Well ID: 34
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	8.46	1056	9.75	1126
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1109		9.58	1.12	13.89	7.40	1,395.7	4.96	9.05 (H)	-91.6	M. Iky
purge	1112		9.07	1.21	12.66	7.15	1,312.6	0.05	11.7 (H)	-90.5	Clear
	1114		9.69	1.22	12.66	7.15	1,312.6	0.05	10.07 (H)	-98.7	Clear
	~~1120~~ 1117		9.75	1.28	12.63	7.16	1,323.4	0.02	9.12 (H)	-102.8	Clear
	1120		9.75	1.28	12.63	7.17	1,334.3	0.01	9.56 (H)	~~-98.7~~ -104.3	Clear
	1123		9.69	1.22	12.57	7.18	1,346.0	0.01	8.23 (H)	-108.6	clear
SAMPLE	1126	2.2	9.75	1.28	12.57	7.18	1,348.9	0.00	6.69	-110.6	Clear

Purge Rate: 350 mL/min
Hatch (H)

KLT 11-14-23

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin P.P. Client: VISTRA
Project Number: Task #: Start Date: 11/14/23 Time: 1200
Field Personnel: KLT, TJD Finish Date: 11/14/23 Time: 1300

WELL INFORMATION

Well ID: ~~HEN-~~32
Casing ID: ~~2~~ Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	4.82	1200	4.87	1244
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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	1208		4.82	0.00	15.25	7.35	1,037.4	8.12	30.4	-4.0	~~Clear~~ Milky
purge	1211		4.91	0.09	14.07	7.17	1,069.9	0.34	30	14.7	Milky
	1214		4.92	0.10	14.08	7.18	1,070	0.21	24.7	14.0	Milky
	1217		4.93	0.11	14.10	7.20	1,070.9	0.17	20.3	22.3	Clear
	1220		4.92	0.10	14.13	7.21	1,047.0	0.15	17.2	29.2	Clear
	1223		4.89	0.07	14.12	7.22	1,043.3	0.15	15.4	28.3	Clear
	1226		4.87	0.05	14.10	7.22	930.14	0.18	12.6	31.5	Clear
	1229		4.86	0.04	14.10	7.22	934.16	0.15	11.1	34.5	Clear

Purge Rate: 350 mL/min

1 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN P.P
Client: VISTRA
Project Number:
Task #:
Start Date: 11-14-23 Time: 1200
Field Personnel: KLT & TJD
Finish Date: 11-14-23 Time: 1300

WELL INFORMATION

Well ID: 32
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	1232		4.86	0.04	14.09	7.22	974.46	0.16	9.8	37.3	
↓	1235		4.87	0.05	14.15	7.22	981.52	0.16	9.32	39.8	
	1238		4.87	0.05	14.14	7.21	1,070.7	0.15	8.93	42.1	
↓	1241		4.85	0.03	14.10	7.21	1,052.4	0.16	7.53	44.10	
SAMPLE	1244	23.5	4.87	0.05	14.12	7.21	957.55	0.19	6.37	46.9	

11-14-23

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 Celcius

2 of 2

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

Well ID: ~~HEN~~ -27
Casing ID: ~~[illegible]~~ Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	3.92	13:19	3.97	13:37
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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	13:25		3.92	0.00	13.76	7.49	1197.4	2.92	~~0.00~~ 3.97	-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	~1	3.97	0.05	12.74	7.32	1206.3	0.38	6.12	-50.4	CLEAR

[signature] 11-14-23

PURGE RATE = 275mL/min

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN PP
Client: VISTRA
Project Number:
Task #:
Start Date: 11-14-23 Time: 15:40
Field Personnel: KLT / TJD
Finish Date: 11-14-23 Time:

WELL INFORMATION

Well ID: 21R
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	5.81	15:40	5.87	16:22
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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	1549		5.81	0.00	14.40	7.48	1,120.5	1.42	73.4	-73.1	clear-b
purge	1552		5.90	0.09	13.73	7.54	1,089.9	0.58	73.2	-131.8	brown - murky
	1555		5.92	0.11	13.71	7.56	993.59	0.50	63.4	-146.9	Milky
	1558		5.83	0.02	13.73	7.59	945.60	0.42	60.4	-152.6	slightly Murky
	1601		5.85	0.04	13.64	7.61	955.38	0.38	59.8	-156.8	slightly murky
	1604		5.85	0.04	13.67	7.64	981.4	0.22	47.5	-160.0	↓
	1607		5.84	0.03	13.62	7.66	1,010.0	0.21	45.3	-162.2	slightly murky
	1610		5.85	0.04	13.59	7.67	1,024.4	0.19	39.3	-164.0	↓

Flow Rate: ~~400~~ 350 ML/min ROTTEN EGG-LIKE ODOR

1 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN PP
Project Number:
Field Personnel: KJ TJD
Task #:
Client: VISTRA
Start Date: 11-14-23 Time: 1540
Finish Date: 11-14-23 Time:

WELL INFORMATION

Well ID: 21R
Casing ID: inches

EVENT TYPE

☐ Well Development ☒ Low-Flow / Low Stress Sampling
☐ Well Volume Approach 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	1613		5.86	0.05	13.54	7.68	1,020.9	0.11	38.1	-163.4	Milky
↓	1616		5.86	0.05	13.54	7.68	1,064.5	0.38	38.8	-166.3	milky
	1619		5.86	0.05	13.50	7.64	1,078.8	0.23	33.3	-166.7	milky
SAMPLE	1622	~4.5	5.87	0.06	13.44	7.70	1,092.0	0.12	31.6	-167.1	milky

11-15-23

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 Celcius

2 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin P.P. Client: VISTRA
Project Number: Task #: Start Date: 11/15/23 Time: 0830
Field Personnel: KLT/TJD Finish Date: 11/15/23 Time:

WELL INFORMATION

Well ID: ~~HEN-~~35
Casing ID: ~~2~~2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	8.17	0830	8.20	0856
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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	0844		8.17	0.00	15.46	6.75	2,416.6	0.43	16.9	239.0	Clear/Brown
purge	0847		8.18	0.01	15.464	6.81	2,414.2	0.28	7.37	236.5	Clear
↓	0850		8.19	0.02	15.47	6.84	2,394.8	0.26	3.84	233.4	Clear
↓	0853		8.19	0.02	15.53	6.85	2,402.7	0.23	1.46	230.1	Clear
SAMPLE	0856	21.5	8.20	0.03	15.56	6.86	2,410.7	0.21	0.60	227.5	Clear

11-15-23

Flow Rate: 325 mL/min
Secondary pH: 6.83

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin PP
Client: VISTRA
Project Number:
Task #:
Start Date: 11/15/23 Time: 1015
Field Personnel: KLT / TJD
Finish Date: 11/15/23 Time:

WELL INFORMATION

Well ID: ~~HEN-~~ 51
Casing ID: 2" Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	18.44	1015	18.73	1042
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1023		18.30 ~~44~~	0.00	13.07	7.36	1,501.2	1.42	12.8	-67.5	Milky
purge	1026		18.~~72~~69	0.06	13.00	7.38	1,507.7	0.60	12.1	-95.3	Clear
↓	1027		18.72	0.28	13.03	7.39	1,507.9	0.43	~~17.1~~ 12.5	-101.7	CLEAR
	1030		18.73	0.29	13.02	7.41	1,505.6	0.27	17.1	-110.9	Clear
	1033		18.75	0.31	12.98	7.42	1,506.9	0.20	19.7	-116.6	Clear
	1036		18.75	0.31	13.01	7.42	1,506.0	0.16	16.4	-120.3	Clear
↓	1039		18.~~73~~	0.29	12.99	7.43	1,506.2	0.14	16.0	-123.1	clear
SAMPLE	1042	~1.5	18.73	0.29	13.01	7.43	1,505.3	0.13	14.5	-124.9	Clear

- PURGE RATE ~ 300mL/min
- Secondary pH: 7.42 (1027) time, 7.33 (1036) time
- ~~DUP~~ DUP01 (1047)

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN P.P. Client: VISTRA
Project Number: Task #: Start Date: 11/15/23 Time: 1215
Field Personnel: KLT & TJD Finish Date: 11/15/23 Time: 1236

WELL INFORMATION

Well ID: ~~HEN-~~23
Casing ID: 2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	~~16.67~~ ~~18.67~~	~~8.67~~ 1215	16.78	1236
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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	1230		16.78	0.11	13.61	7.46	1,674.4	6.17	1.61 (H)	-80.9	Clear
purge	1233		16.77	0.10	13.57	7.48	1,672.3	0.10	2.13 (H)	-86.2	Clear*
SAMPLE	1236	20.5	16.78	0.11	13.57	7.51	1,673.5	0.08	2.69 (H)	-88.1	Clear*

11-15-23

(H)

* w/ flocculant

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN P.P. Client: VISTRA
Project Number: Task #: Start Date: 11/15/23 Time: 1330
Field Personnel: KTS, TJD Finish Date: 11/15/23 Time:

WELL INFORMATION

Well ID: ~~HEN~~ 49
Casing ID: ~~2~~ Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- [ ] Well Development
- [x] Low-Flow / Low-Stress Sampling
- [ ] Well Volume Approach Sampling
- [ ] Other (Specify below)

PURGE INFORMATION

Purge Method: [ ] Bailer [x] Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	21.67	1330	21.52	1358
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: [ ] Well Casing [ ] Borehole
Volume Per Foot:
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? [ ] Yes [ ] No

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	1340		21.50	- 0.17	15.38	7.15	1,430.2	2.60	4.65	-33.0	Clear
purge	1343		21.51	- 0.16	15.02	7.13	1,441.7	0.07	12.1	-11.0	Clear
	1346		21.51	- 0.16	15.01	7.14	1,440.5	0.15	15.4	-3.4	Clear
	1349		21.53	- 0.14	14.94	7.16	1,442.1	0.09	13.0	1.3	clear
	1352		21.56	- 0.11	15.60	7.17	1,440.7	0.08	11.4	5.0	clear
	1355		21.53	- 0.14	14.94	7.18	1,442.4	0.06	9.8	8.2	clear
SAMPLE	1358	~2	21.52	- 0.15	14.92	7.19	1,440.4	0.06	9.23	11.1	clear

* Strong odor (rotten egg like)
MS/MSD01

11-15-23

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin P.P. Client: VISTRA
Project Number: Task #: Start Date: 11/15/23 Time: 1455
Field Personnel: KH & TJD Finish Date: 11/15/23 Time:

WELL INFORMATION

Well ID: HEN-221D
Casing ID: 2" Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- [ ] Well Development
- [x] Low-Flow / Low-Stress Sampling
- [ ] Well Volume Approach Sampling
- [ ] Other (Specify below)

PURGE INFORMATION

Purge Method: [ ] Bailer [x] Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	19.88	1455	19.26	1537
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: [ ] Well Casing [ ] Borehole
Volume Per Foot:
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? [ ] Yes [ ] 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	1458		19.0824	0.16	16.64	7.35	1,019.4	1.34	3.24	-126.6	clear*
purge	1501		19.25	0.17	16.37	7.30	1,375.3	0.78	2.15	-115.1	clear*
↓	1504		19.25	0.17	16.32	7.32	259.97	0.69	3.34	-113.9	clear
	1507		19.25	0.17	16.21	7.33	1,218.6	0.64	4.21	-113.4	clear
	1510		19.2828	0.20	16.24	7.35	1,249.5	0.80	3.39	-112.1	clear
	1513		19.28	0.20	16.19	7.37	590.13	1.29	2.68	-113.5	clear
	1516		19.28	0.20	16.23	7.38	937.92	0.64	2.26	-113.6	clear
↓	1519		19.29	0.21	16.16	7.40	1,268.9	0.81	3.54	-112.7	clear

- Flow Rate: 325 mL/min
- (*) flocculent
- Bubbles, possibly from line in well
- Secondary pH: 7.38 (1510) time

1 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN P.D
Project Number:
Task #:
Client: VISTRA
Field Personnel: KLT & TJD
Start Date: 11-15-23 Time: 1455
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
PURGE	1522		19.27	0.19	16.15	7.40	1,246.4	0.55	2.17	-113.2	clear
↓	1525		19.24	0.16	16.11	7.41	1,452.2	0.81	2.18	-112.9	clear*
	1528		19.26	0.18	16.15	7.41	1,339.8	0.81	2.66	-112.9	clear*
	1531		19.24	0.16	16.08	7.42	1,447.4	0.96	2.50	-112.3	clear*
	1534		19.24	0.16	16.08	7.42	1,333.6	0.92	2.72	-112.1	clear*
SAMPLE	1537	25	19.26	0.18	16.22	7.42	1,361.1	0.72	2.17	-112.1	clear*

11-15-23

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 Celcius

2 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin P.P. Client: VISTRA
Project Number: Task #: Start Date: 11/15/23 Time: 1540
Field Personnel: KLT / TJD Finish Date: 11/15/23 Time:

WELL INFORMATION

Well ID: HEW 22
Casing ID: 2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	18.45	1540	18.45	16:18
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1606		18.47	0.02	15.88	7.67	1,357.8	0.20	0.64	-52.4	clear
purge	1609		18.46	0.01	15.81	7.68	1,355.8	0.15	0.55	-51.2	clear
↓	1612		18.45	0.00	15.74	7.70	1,353.2	0.13	0.55	-50.1	clear
↓	1615		18.47	0.02	15.69	7.71	1,350.2	0.11	0.77	-49.0	clear
SAMPLE	1618	20.5	18.45	0.00	15.68	7.72	1,353.0	0.11	0.49	-48.4	clear

11-15-23

• Flow Rate: 250 mL/min

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Start Date: 11-16-23 Time: 08:54
Field Personnel: KLT, TJD
Finish Date: 11-16-23 Time:

WELL INFORMATION

Well ID: 03R
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED Bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	34.97	08:54	34.99	9:25
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	0916		34.98	0.01	17.12	7.23	1,731.5	0.15	~~6.00~~	208.7	clear
purge	0918		34.97	0.00	17.10	7.26	1,730.9	0.13	4.30	205.0	clear
↓	0922		34.98	0.01	17.18	7.24	1,732.8	0.11	3.00	203.6	clear
SAMPLE	0925	20.5	34.99	0.02	17.18	7.25	1,727.1	0.11	2.34	205.1	clear

KLT 11-16-23

MS/MSD02

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin Power Plant
Client: VISTRA
Project Number:
Task #:
Start Date: 11/16/23 Time: 1100
Field Personnel: KLT TJD
Finish Date: 11/16/23 Time:

WELL INFORMATION

Well ID: HEN-185
Casing ID: ~~2~~ Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	40.72	1100	40.76	11.32
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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		40.74	0.02	16.95	7.47	1,6490.0	0.61	2.26	128.7	clear
purge	1126		40.76	0.04	16.99	7.44	1,648.0	0.24	1.42	126.8	clear
↓	1129		40.75	0.03	17.00	7.46	1,648.8	0.19	1.31	123.0	clear
SAMPLE	1132	20.5	40.76	0.04	17.01	7.45	1,648.2	0.17	0.91	121.2	clear

TJD 11-16-23

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Start Date: 11/16/23 Time:
Field Personnel: TJP
Finish Date: 11/16/23 Time:

WELL INFORMATION

Well ID: ~~HEN-~~ 051R
Casing ID: ~~2~~ 2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	41.25	13:30	41.26	13:49
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1340		41.25	0.00	17.07	7.66	1,592.7	1.55	3.45	69.6	Clear
purge	1343		41.26	0.01	17.07	7.69	1,589.7	0.43	3.30	69.4	Clear
↓	1346		41.26	0.01	17.06	7.71	1,588.3	0.17	3.50	68.6	Clear
SAMPLE	1349	20.5	41.26	0.01	17.06	7.72	1,589.1	0.12	2.66	68.3	Clear

Flow Rate: 375 mL/min

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: ~~HEN-10~~ Hennepin P P
Client: VISTRA
Project Number:
Task #:
Start Date: 11/16/23 Time: 1515
Field Personnel: TJD
Finish Date: 11/16/23 Time:

WELL INFORMATION

Well ID: ~~HEN-~~10
Casing ID: ~~2~~ Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	50.607	1525 ~~1555~~ BJ	50.606	1541
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1529		50.606	-0.01	~~7.19~~ 19.53	7.14	1,654.2	2.07	0.68	114.9	
purge	1532		50.607	0.00	19.609	7.13	1,664.1	1.64	0.64	114.9	
↓	1535		50.606	-0.01	19.776	7.13	1,843.1	1.60	0.52	114.1	
↓	1538		50.605	-0.02	19.80	7.12	1,844.1	1.59	0.67	113.9	
SAMPLE	1541	20.5	50.606	-0.01	19.80	7.12	1,844.6	1.59	0.70	113.7	

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin PP
Project Number:
Field Personnel: TJD
Task #:
Client: VISTRA
Start Date: 11-17-23 Time: ~~0915~~ 0853
Finish Date: 11-17-23 Time: ~~0945~~ 0903

WELL INFORMATION

Well ID: HEN 54
Casing ID: ~~Ø2~~ 2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	53.10	0853	53.10	0902
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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		53.10	0.00	16.45	7.37	4,740.1	1.48	4.36	230.5	
purge	0856		53.11	0.01	17.03	7.32	4,715.8	1.01	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	7.36	4,702.0	0.57	3.19	208.6	
				~~TJD~~	11-17-23						

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin POWER PLANT
Client: VISTRA
Project Number:
Task #:
Start Date: 11-17-23 Time: 0955
Field Personnel: JJD
Finish Date: 11-17-23 Time:

WELL INFORMATION

Well ID: ~~HEN~~ 12
Casing ID: ~~PVC~~ 2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: Bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	51.03	0955	51.08	1019
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1007		51.06	-0.02	18.50	7.37	4,770	2.41	1.32	157.4	Clear
purge	1010		51.07	-0.01	18.64	7.36	4,719.0	2.36	1.09	153.6	Clear
↓	1013		51.07	-0.01	18.72	7.36	4,719.6	2.33	1.02	147.0	Clear
	1016		51.08	0.00	18.69	7.35	4,717.4	2.31	1.31	144.7	clear
SAMPLE	1019	2 /	51.08	0.00	18.67	7.35	4,713.8	2.30	1.04	140.1	Clear

Flow Rate: 300 mL/min

1 of 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin River Plant
Client: NISTRA
Project Number:
Task #:
Start Date: 11-17-23 Time: 1222
Field Personnel: TJD
Finish Date: 11-17-23 Time: 1231

WELL INFORMATION

Well ID: ~~HEN-~~08D
Casing ID: ~~2~~2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	54.03	1222	54.04	1231
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1222		54.04	-0.01	13.62	6.78	11,073	0.44	2.14	154.6	Clear
purge	1225		54.04	-0.01	13.60	6.76	11,033	0.32	2.25	153.8	Clear
↓	1228		54.04	-0.01	13.59	6.76	11,037	0.16	2.18	153.0	Clear
SAMPLE	1231	~1	54.04	-0.01	13.63	6.76	11,218	0.12	1.36	152.3	Clear
							TD	11-17-23			

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin P.P. Client: VISTRA
Project Number: Task #: Start Date: 11/17/23 Time: 1400
Field Personnel: TJD Finish Date: 11/17/23 Time:

WELL INFORMATION

Well ID: ~~MW-17~~
Casing ID: ~~2~~ 2 Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth: 1
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	55.35	1400	55.36	14:17
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	1403		55.35	0.00	17.85	7.31	4,370.2	5.75	2.06	135.0	clear
purge	1411		55.35	0.00	17.84	7.34	4,734.2	5.71	1.13	130.6	↓
↓	1414		55.36	0.01	17.87	7.34	4,726.7	5.70	1.40	130.3	
SAMPLE	1417	~1	55.36	0.01	17.84	7.34	4,723.0	5.64	1.05	130.9	↓

Flow Rate = 360 ML/min

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin P.P
Client: VISTRA
Project Number:
Task #:
Start Date: 11/29/23 Time:
Field Personnel: TJD
Finish Date: 11/29/23 Time:

WELL INFORMATION

Well ID: ~~HEN-~~ 455
Casing ID: ~~2~~ Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	20.55	0851	20.56	0915
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	14.00	7.17	6,047.3	0.31	115	203.4	Murky
purge	0854		20.55	0.00	18.12	7.19	5,999.3	0.15	98	201.5	cloudy
	0857		20.60	0.05	18.08	7.20	5,485.8	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
	0909		20.56	0.01	18.25	7.20	5,963.6	0.10	88.7	192.7	cloudy
	0912		20.56	0.01	18.27	7.20	5,963.6	0.10	48.3	189.9	cloudy

1 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN POWER PLANT Client: VISTRA
Project Number: _____ Task #: _____ Start Date: 11-20-23 Time: _____
Field Personnel: _____ Finish Date: 11-20-23 Time: _____

WELL INFORMATION

Well ID: 455
Casing ID: _____ inches

EVENT TYPE

☐ Well Development ☐ Low-Flow / Low Stress Sampling
☐ Well Volume Approach 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
SAMPLE	0915	23	20.56	0.01	13.22	7.20	5.96	0.09	40.3	138.1	cloudy

NOTES (continued)

ABBREVIATIONS

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

2 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: Hennepin P P. Client: VISTRA
Project Number: Task #: Start Date: 11/30/23 Time:
Field Personnel: TJD Finish Date: 11/30/23 Time:

WELL INFORMATION

Well ID: ~~HEN-52~~
Casing ID: ~~R22~~ Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☑ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☑ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	45.15	1119	45.14	1130
DNAPL				
Casing Base				

Water Level Serial #:

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ No

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	1119		45.15	0.00	12.10	7.02	6.053.4	2.32	1.37	146.2	Clear
purge	1122		45.15	0.00	12.07	7.03	6.045.7	2.82	1.08	146.2	↓
↓	1125		45.15	0.00	12.04	7.04	6.033.3	2.82	0.62	146.4	↓
↓	1128		45.14	-0.01	12.07	7.04	6.037.5	2.83	0.44	146.4	↓
SAMPLE	1130	2 l	45.14	-0.01	12.07	7.04	6.025.4	2.83	0.89	146.5	↓

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT — Client: VISTRA
Project Number: — Task #: — Start Date: 11-20-23 Time: 12:30
Field Personnel: K. LITTLE — Finish Date: 11-20-23 Time:

WELL INFORMATION

Well ID: 07
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	68.55	12:37	68.54	13:12
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☐ 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	6.47	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	174.9	clear*
↓	1257		68.55	0.00	11.49	6.97	7,355.1	4.05	0.00	173.4	clear*
	1300		68.55	0.00	11.33	6.97	7,352.8	4.02	0.11	173.3	clear
	1303		68.55	0.00	10.99	6.97	7,330.9	4.01	0.67	173.0	clear
	1306		68.54	-0.01	11.42	6.97	7,303.0	4.03	0.51	172.1	clear
↓	1309		68.55	0.00	11.40	6.97	7,334.2	4.05	0.61	171.8	↓
SAMPLE	1312	~2.5	68.54	-0.01	11.42	6.96	7,297.8	4.01	0.64	171.3	↓

* pump battery was changed

* w/ light brown flocculent
Flow Rate: 425 mL/min

* Turbidity measurement is (-) -0.01, even when checked w/ standard

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Start Date: 11-16-23 Time: 10:56
Field Personnel: KLT
Finish Date: 11-16-23 Time: 12:50

WELL INFORMATION

Well ID: 18D
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	40.80	10:56	40.87	11:55
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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	11:13		40.90	0.10	16.90	7.18	3.05	3.25	~~8.40~~	167.8	CLEAR
purge	11:16		40.91	0.11	16.97	7.13	56.39	2.45	14.0	151.4	CLEAR
↓	11:19		40.92	0.12	17.01	7.10	58.02	4.52	18.4	126.6	CLEAR
	11:22		40.96	0.16	17.03	7.07	2.48	4.69	17.7	103.3	CLEAR
	11:25		40.92	0.12	17.06	7.10	45.75	6.21	19.3	54.9	CLEAR
	11:28		40.87	0.07	17.05	7.00	56.35	5.54	15.4	33.8	CLEAR
↓	11:31		40.86	0.06	~~17.15~~	6.92	37.17	6.15	17.5	39.8	CLEAR
	11:34		40.86	0.06	17.21	6.90	41.52	6.06	14.8	54.3	CLEAR

SECONDARY pH READ 7.02

FLOW RATE @ 350mL/min
drop to 275 mL/min @ 11:22

1 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Start Date: 11-16-23 Time: 10:56
Field Personnel: KLT
Finish Date: 11-16-23 Time: 12:50

WELL INFORMATION

Well ID: 18D
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	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	6.87	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	1 gal	40.87	0.07	18.59	6.74	14.81	4.80	10.28	75.5	CLEAR

11-16-23

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: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Field Personnel: KLT
Start Date: 11-16-23 Time: 13:15
Finish Date: 11-16-23 Time: 14:35

WELL INFORMATION

Well ID: 05DR
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED Bladder
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	41.20	13:15	41.30	13:46
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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	13:34		41.30	0.10	16.95	7.37	1,310.7	3.57	1.57	94.3	CLEAR
purge	13:37		41.30	0.10	17.00	7.39	1,311.3	1.98	0.80	91.1	CLEAR
↓	13:40		41.30	0.10	17.00	7.40	1,359.8	1.14	1.22	88.2	CLEAR
	13:43		41.30	0.10	17.00	7.41	13584	0.95	1.86	85.8	CLEAR
↓	13:46	~2gal	41.30	0.10	16.99	7.41	1,359.9	0.91	1.87	84.2	CLEAR

11-16-23

FLOW RATE = 200mL/min

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN P.P. Client: VISTRA
Project Number: Task #: Start Date: 11-16-23 Time: 14:50
Field Personnel: KLT Finish Date: 11-16-23 Time: 15:48

WELL INFORMATION

Well ID: 40S
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	40.45	14:55	40.47	15:19
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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	15:07		40.45	0.00	17.06	7.79	1,276.6	0.89	0.50	58.5	CLEAR
purge	15:10		40.46	0.01	17.10	7.80	1,277.1	0.24	0.67	56.2	CLEAR
	15:13		40.47	0.02	17.09	7.81	1,276.4	0.17	0.66	54.4	CLEAR
↓	15:16		40.47	0.02	17.08	7.81	1,276.1	0.14	0.48	53.0	CLEAR
SAMPLE	15:19	2.2gal	40.47	0.02	17.07	7.81	1,276.6	0.12	0.27	51.8	↓
					11-16-23						

FLOW RATE = 400mL/min

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Field Personnel: KLJ
Start Date: 11-17-23 Time: 08:25
Finish Date: 11-17-23 Time:

WELL INFORMATION

Well ID: 47
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	55.52	08:27	55.53	09:33
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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	~~08:43~~		55.53	0.01	17.42	6.92	1,037.1	2.04	0.23	230.8	CLEAR
	purge	08:47		55.53	0.01	17.67	6.92	1,032.6	1.77	0.30	228.5	CLEAR
	↓	08:50		55.53	0.01	17.80	6.96	1,035.2	1.74	0.27	224.2	CLEAR
		08:53		55.53	0.01	17.79	6.98	1,031.5	1.69	—	221.3	CLEAR
*	↓	09:20		55.53	0.01	17.95	7.05	1,046.1	1.69	0.00	193.9	CLEAR
	↓	09:23		55.53	0.01	17.96	7.07	1,085.4	1.616	0.00	192.6	CLEAR
	↓	09:27		55.53	0.01	17.85	7.07	1,044.0	1.59	0.00	191.9	CLEAR
	↓	09:30		55.53	0.01	17.89	7.07	1044.4	1.57	0.00	190.7	CLEAR

* TUBING AIR LEAK? BUBBLES IN LINE
EUROFINS PICKUP CAME EARLY (08:55) HAD TO STOP TEST TO DROP SAMPLES

FLOW RATE ~ 350mL/MIN

1 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN P.P. Client: VISTRA
Project Number: Task #: Start Date: ~~11-16-23~~ 11-17-23 Time: 09:25
Field Personnel: KT Finish Date: 11-17-23 Time: 09:57

WELL INFORMATION

Well ID: 47
Casing ID: inches

EVENT TYPE

☐ Well Development ☒ Low-Flow / Low Stress Sampling
☐ Well Volume Approach 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
SAMPLE ~~PURGE~~	09:33	4gal	55.53	0.01	17.87	7.07	1043.6	1.56	0.00	189.7	CLEAR

11-17-23

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 Celcius

2 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

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

WELL INFORMATION

Well ID: 08
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: GED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	53.85	12:11	53.88	12:29
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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	2,135.7	1.02	0.09	168.5	↓
↓	12:26		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	↓
SAMPLE	12:32		53.88	0.03							
					11-17-23						

DUP03

~300 ML/MIN

CALLED EUROFINS - AMMONIA BOTTLE MISSING FROM DUP KIT. CAN PULL FROM PHENOLS BOTTLE - FOLLOWUP WAS JUST A DIFFERENT STYLE BOTTLE

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN P.P. Client: VISTRA
Project Number: Task #: Start Date: 11-17-23 Time: 13:55
Field Personnel: KLT Finish Date: 11-17-23 Time:

WELL INFORMATION

Well ID: 16
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	54.42	14:05	54.49	14:29
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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		54.45	0.03	17.31	7.32	911.80	7.73	0.51	146.0	MILKY
purge	14:14		54.48	0.06	15.78	7.34	913.76	6.56	0.18	148.6	CLEAR
↓	14:17		54.49	0.07	15.57	7.33	915.96	6.16	0.29	149.7	↓
	14:20		54.49	0.07	15.50	7.34	916.04	6.05	0.26	150.0	
	14:23		54.48	0.06	15.27	7.34	915.63	6.01	0.19	150.6	
	14:26		54.49	0.07	15.33	7.34	915.63	5.98	0.09	150.8	
SAMPLE	14:29		54.49	0.07	15.24	7.34	915.25	5.98	0.14	151.1	↓
					11-17-23						

FLOW RATE=

1 OF 1

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Start Date: 11-20-23 Time: 0828
Field Personnel: KLT
Finish Date: 11-20-23 Time: 0935

WELL INFORMATION

Well ID: 416
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	51.58	0831	51.58	0913
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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	0843		51.58	0.00							
purge	0846		51.58	0.00	17.56	7.04	952.47	3.67	0.64	246.1	CLEAR
↓	0849		51.58	0.00	17.62	7.08	587.69	3.21	0.19	242.5	↓
↓	0852		51.58	0.00	17.62	7.15	545.35	3.12	1.09	237.3	↓
↓	0855		51.58	0.00	17.94	7.19	413.39	3.08	1.07	233.5	↓
↓	0858		51.58	0.00	18.03	7.22	441.05	3.03	0.53	230.4	↓
↓	0901		51.58	0.00	18.05	7.23	435.64	3.01	0.50	228.1	↓
↓	0904		51.58	0.00	18.30	7.23	450.28	2.99	0.54	227.0	↓

FORGOT TO START

FLOW ~ 375 mL/MIN

1 OF 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HEN POWER PLANT
Client:
Project Number:
Task #:
Field Personnel: KLT
Start Date: 11-20-23 Time: 0828
Finish Date: 11-20-23 Time: 0935

WELL INFORMATION

Well ID: 4Q
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	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	↓

11-20-23

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 Celcius

20=2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Start Date: 11-20-23 Time: 09:39
Field Personnel: KLT
Finish Date: 11-20-23 Time: 10:41

WELL INFORMATION

Well ID: 52
Casing ID: Inches
Screen Interval:
Borehole Diameter: Inches
Filter Pack Interval:

EVENT TYPE

- ☐ Well Development
- ☒ Low-Flow / Low-Stress Sampling
- ☐ Well Volume Approach Sampling
- ☐ Other (Specify below)

PURGE INFORMATION

Purge Method: ☐ Bailer ☒ Pump
Bailer Type: n/a
Pump Type and Serial #: QED BLADDER
Tube/Pump Intake Depth:
Stabilized Pumping Rate:

DEPTH MEASUREMENTS

	INITIAL		FINAL	
	Depth FT BTOC	Time (24-Hour)	Depth FT BTOC	Time (24-Hour)
LNAPL				
Groundwater	53.93	09:42	54.01	10:18
DNAPL				
Casing Base				

VOLUME CALCULATION AND PRODUCTION INFORMATION

Volume Calculation Type: ☐ Well Casing ☐ Borehole
Volume Per Foot:
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? ☐ Yes ☒ 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	09:51		53.97	0.04	17.86	7.09	1,111.9	2.52	21.8	209.5	CLEAR
purge	09:54		54.00	0.07	18.06	7.09	1,117.3	2.20	5.34	208.5	
	09:57		54.00	0.07	18.20	7.07	1,124.7	2.21	4.30	207.7	
	10:00		54.01	0.08	18.38	7.06	1,128.9	2.23	3.27	207.1	
	10:03		54.01	0.08	18.46	7.06	1,130.1	2.25	3.16	205.5	
	10:06		54.01	0.08	18.36	7.07	1,128.8	2.26	2.25	204.2	
	10:09		54.01	0.08	18.50	7.06	1,129.5	2.26	2.01	203.2	
↓	10:12		54.01	0.08	18.39	7.08	1,128.7	2.27	1.58	201.0	↓

FLOW ~ 375 mL/MIN

1 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

PROJECT INFORMATION

Site: HENNEPIN POWER PLANT
Client: VISTRA
Project Number:
Task #:
Field Personnel: KLT
Start Date: 11-20-23 Time: 09:39
Finish Date: 11-20-23 Time: 10:41

WELL INFORMATION

Well ID: 52
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	10:15		54.01	0.08	18.43	7.09	1,129.2	2.28	1.33	199.5	CLEAR
SAMPLE	10:18	~4	54.01	0.08	18.47	7.09	1,129.6	2.30	1.01	198.1	↓

1520
11-20-23

NOTES (continued)

SECONDARY pH @ 10:18 = 7.19

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 Celcius

2 of 2

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	35.50		KLT
04R	HEN_04R	11-13-23	11:55	39.54		KLT
05R	HEN_05!R	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	49.67		KLT
16	HEN_16	11-13-23	08:01	54.67		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

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	18.43		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
@14:30 → 35	HEN_35	11-13-23	14:15	8.37		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	51.46		KLT
47	HEN_47	11-13-23	09:08	55.72		KLT
48	HEN_48	11-13-23	NM	NM	CASING LIKELY COMPROMISED NEARBY HORNETS	KLT MUD
49	HEN_49	11-13-23	13:47	21.49		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					
53		11-13-23	09:26	55.68	U:10/03/23 JRK	KLT

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 01/04/24 14:30:46 Revision 1

JOB DESCRIPTION

HEN-23Q4
HEN_845_804_RAD

JOB NUMBER

500-242591-6

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

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

Generated
01/04/24 14:30:46
Revision 1

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Table of Contents

Case Narrative

Client: Vistra Energy Corp
Project: HEN-23Q4

Job ID: 500-242591-6

Job ID: 500-242591-6 **Eurofins Chicago**

Job Narrative
500-242591-6

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:
Revise the sample times for the following wells:
HEN_22D 15:37.

Receipt
The samples were received on 11/15/23 11:40. 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 1.8º C, 2.3º C, 2.4º C, 3.0º C, 3.2º C, 4.2º C, 4.4º C, 4.6º C, 4.6º C, 4.9º C, 4.9º C, 5.0º C, 5.0º C, 5.6º C and 5.7º C.

RAD
Method 904.0: Radium-228 batch 637387
The detection goal was not met for the following sample. Sample was prepped at a reduced volume due to the presence of matrix interferences: HEN_21R (500-242591-1). Analytical results are reported with the detection limit achieved.

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

Detection Summary

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_21R — Lab Sample ID: 500-242591-1

No Detections.

Client Sample ID: HEN_32 — Lab Sample ID: 500-242591-2

No Detections.

Client Sample ID: HEN_50 — Lab Sample ID: 500-242591-3

No Detections.

Client Sample ID: HEN_34 — Lab Sample ID: 500-242591-4

No Detections.

Client Sample ID: HEN_27 — Lab Sample ID: 500-242591-5

No Detections.

Client Sample ID: HEN_35 — Lab Sample ID: 500-242591-6

No Detections.

Client Sample ID: HEN_51 — Lab Sample ID: 500-242591-7

No Detections.

Client Sample ID: HEN_51_DUP — Lab Sample ID: 500-242591-8

No Detections.

Client Sample ID: HEN_23 — Lab Sample ID: 500-242591-9

No Detections.

Client Sample ID: HEN_23_FD — Lab Sample ID: 500-242591-10

No Detections.

Client Sample ID: HEN_49 — Lab Sample ID: 500-242591-11

No Detections.

Client Sample ID: HEN_22&D — Lab Sample ID: 500-242591-12

No Detections.

Client Sample ID: HEN_22 — Lab Sample ID: 500-242591-13

No Detections.

Client Sample ID: HEN_FB — Lab Sample ID: 500-242591-39

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

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

Job ID: 590-242591-6
SDG: HEN_845_804_RAD

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

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-242591-1	HEN_21R	Water	11/14/23 16:22	11/15/23 11:40
500-242591-2	HEN_32	Water	11/14/23 12:44	11/15/23 11:40
500-242591-3	HEN_50	Water	11/14/23 09:47	11/15/23 11:40
500-242591-4	HEN_34	Water	11/14/23 11:26	11/15/23 11:40
500-242591-5	HEN_27	Water	11/14/23 13:37	11/15/23 11:40
500-242591-6	HEN_35	Water	11/15/23 08:56	11/15/23 11:40
500-242591-7	HEN_51	Water	11/15/23 10:42	11/16/23 11:20
500-242591-8	HEN_51_DUP	Water	11/15/23 10:47	11/16/23 11:20
500-242591-9	HEN_23	Water	11/15/23 12:36	11/16/23 11:20
500-242591-10	HEN_23_FD	Water	11/15/23 12:41	11/16/23 11:20
500-242591-11	HEN_49	Water	11/15/23 13:58	11/16/23 11:20
500-242591-12	HEN_22&D	Water	11/15/23 15:37	11/16/23 11:20
500-242591-13	HEN_22	Water	11/15/23 16:18	11/16/23 11:20
500-242591-39	HEN_FB	Water	11/20/23 13:20	11/21/23 08:06

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_21R

Date Collected: 11/14/23 16:22
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-1

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	0.525		0.314	0.317	1.00	0.426	pCi/L	11/17/23 11:11	12/14/23 13:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*30 - 110*	*11/17/23 11:11*	*12/14/23 13:54*	*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	1.83	G	0.790	0.808	1.00	1.01	pCi/L	11/17/23 11:22	12/12/23 16:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*1*
Y Carrier	*77.4*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*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	2.36		0.850	0.868	5.00	1.01	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_32
Date Collected: 11/14/23 12:44
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-2
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	0.0409	U	0.178	0.178	1.00	0.331	pCi/L	11/17/23 11:11	12/14/23 13:54	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.0*		*30 - 110*	*11/17/23 11:11*	*12/14/23 13:54*	*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	0.643	U	0.536	0.539	1.00	0.845	pCi/L	11/17/23 11:22	12/12/23 16:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.0*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*1*
Y Carrier	*81.1*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*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	0.684	U	0.565	0.568	5.00	0.845	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_50

Date Collected: 11/14/23 09:47
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-3

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	0.419		0.209	0.212	1.00	0.273	pCi/L	11/17/23 11:11	12/14/23 13:53	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.1*		*30 - 110*	*11/17/23 11:11*	*12/14/23 13:53*	*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	0.630		0.380	0.384	1.00	0.552	pCi/L	11/17/23 11:22	12/12/23 16:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.1*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*1*
Y Carrier	*81.9*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*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	1.05		0.434	0.439	5.00	0.552	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_34
Date Collected: 11/14/23 11:26
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-4
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	0.145	U	0.187	0.188	1.00	0.312	pCi/L	11/17/23 11:11	12/14/23 13:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*30 - 110*	*11/17/23 11:11*	*12/14/23 13:47*	*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	0.324	U	0.442	0.443	1.00	0.742	pCi/L	11/17/23 11:22	12/12/23 16:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.9*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*1*
Y Carrier	*76.6*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:09*	*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	0.469	U	0.480	0.481	5.00	0.742	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_27

Date Collected: 11/14/23 13:37
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-5

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	0.0368	U	0.117	0.117	1.00	0.216	pCi/L	11/17/23 11:11	12/14/23 13:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*11/17/23 11:11*	*12/14/23 13:47*	*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	**0.738**		0.430	0.436	1.00	0.630	pCi/L	11/17/23 11:22	12/12/23 16:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.7*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:05*	*1*
Y Carrier	*76.6*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:05*	*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	**0.775**		0.446	0.451	5.00	0.630	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_35

Date Collected: 11/15/23 08:56
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-6

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	0.115	U	0.132	0.132	1.00	0.215	pCi/L	11/17/23 11:11	12/14/23 13:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.5*		*30 - 110*	*11/17/23 11:11*	*12/14/23 13:48*	*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	0.519	U	0.385	0.388	1.00	0.589	pCi/L	11/17/23 11:22	12/12/23 16:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.5*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:05*	*1*
Y Carrier	*78.5*		*30 - 110*	*11/17/23 11:22*	*12/12/23 16:05*	*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	**0.634**		0.407	0.410	5.00	0.589	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_51
Date Collected: 11/15/23 10:42
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-7
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	0.993		0.398	0.408	1.00	0.425	pCi/L	11/20/23 10:14	12/18/23 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*11/20/23 10:14*	*12/18/23 17:00*	*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	2.10		0.736	0.761	1.00	0.872	pCi/L	11/20/23 10:18	12/18/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.3*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:51*	*1*
Y Carrier	*60.6*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:51*	*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	3.09		0.837	0.863	5.00	0.872	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_51_DUP

Date Collected: 11/15/23 10:47
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-8

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	0.979		0.406	0.416	1.00	0.433	pCi/L	11/20/23 10:14	12/18/23 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*30 - 110*	*11/20/23 10:14*	*12/18/23 17:00*	*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	0.992		0.529	0.537	1.00	0.744	pCi/L	11/20/23 10:18	12/18/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.7*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:51*	*1*
Y Carrier	*79.6*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:51*	*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	1.97		0.667	0.679	5.00	0.744	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_23

Date Collected: 11/15/23 12:36
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-9

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	-0.0254	U	0.172	0.172	1.00	0.357	pCi/L	11/20/23 10:14	12/18/23 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*11/20/23 10:14*	*12/18/23 17:00*	*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	0.207	U	0.314	0.315	1.00	0.533	pCi/L	11/20/23 10:18	12/18/23 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*1*
Y Carrier	*74.0*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*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	0.207	U	0.358	0.359	5.00	0.533	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_23_FD

Date Collected: 11/15/23 12:41
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-10

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	0.00821	U	0.206	0.206	1.00	0.398	pCi/L	11/20/23 10:14	12/18/23 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*30 - 110*	*11/20/23 10:14*	*12/18/23 17:00*	*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	0.277	U	0.261	0.263	1.00	0.414	pCi/L	11/20/23 10:18	12/18/23 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*106*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*1*
Y Carrier	*79.6*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*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	0.285	U	0.333	0.334	5.00	0.414	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_49

Date Collected: 11/15/23 13:58
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-11

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	0.142	U	0.248	0.248	1.00	0.430	pCi/L	11/20/23 10:14	12/18/23 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*11/20/23 10:14*	*12/18/23 17:00*	*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	**0.496**		0.319	0.322	1.00	0.462	pCi/L	11/20/23 10:18	12/18/23 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*1*
Y Carrier	*74.4*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*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	**0.638**		0.404	0.406	5.00	0.462	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_22&D

Date Collected: 11/15/23 15:37
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-12

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	**0.609**		0.291	0.296	1.00	0.347	pCi/L	11/20/23 10:14	12/18/23 16:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*30 - 110*	*11/20/23 10:14*	*12/18/23 16:56*	*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	0.151	U	0.351	0.351	1.00	0.612	pCi/L	11/20/23 10:18	12/18/23 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.2*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:51*	*1*
Y Carrier	*82.2*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:51*	*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	**0.760**		0.456	0.459	5.00	0.612	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_22

Date Collected: 11/15/23 16:18
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-13

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	-0.0707	U	0.147	0.147	1.00	0.335	pCi/L	11/20/23 10:14	12/18/23 16:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*11/20/23 10:14*	*12/18/23 16:56*	*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	**0.629**		0.386	0.390	1.00	0.567	pCi/L	11/20/23 10:18	12/18/23 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.5*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*1*
Y Carrier	*75.1*		*30 - 110*	*11/20/23 10:18*	*12/18/23 11:52*	*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	**0.629**		0.413	0.417	5.00	0.567	pCi/L		12/18/23 22:51	1

Client Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_FB
Date Collected: 11/20/23 13:20
Date Received: 11/21/23 08:06

Lab Sample ID: 500-242591-39
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	0.0283	U	0.112	0.112	1.00	0.216	pCi/L	11/27/23 10:49	12/22/23 14:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*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	-0.0162	U	0.373	0.373	1.00	0.686	pCi/L	11/27/23 10:59	12/19/23 16:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*30 - 110*	*11/27/23 10:59*	*12/19/23 16:29*	*1*
Y Carrier	*79.3*		*30 - 110*	*11/27/23 10:59*	*12/19/23 16:29*	*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	0.0283	U	0.389	0.389	5.00	0.686	pCi/L		12/27/23 14:29	1

Definitions/Glossary

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

Job ID: 590-242591-6
SDG: HEN_845_804_RAD

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

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

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Rad

Prep Batch: 637386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	PrecSep-21	
500-242591-2	HEN_32	Total/NA	Water	PrecSep-21	
500-242591-3	HEN_50	Total/NA	Water	PrecSep-21	
500-242591-4	HEN_34	Total/NA	Water	PrecSep-21	
500-242591-5	HEN_27	Total/NA	Water	PrecSep-21	
500-242591-6	HEN_35	Total/NA	Water	PrecSep-21	
MB 160-637386/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-637386/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 637387

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-1	HEN_21R	Total/NA	Water	PrecSep_0	
500-242591-2	HEN_32	Total/NA	Water	PrecSep_0	
500-242591-3	HEN_50	Total/NA	Water	PrecSep_0	
500-242591-4	HEN_34	Total/NA	Water	PrecSep_0	
500-242591-5	HEN_27	Total/NA	Water	PrecSep_0	
500-242591-6	HEN_35	Total/NA	Water	PrecSep_0	
MB 160-637387/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-637387/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Prep Batch: 637553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-7	HEN_51	Total/NA	Water	PrecSep-21	
500-242591-8	HEN_51_DUP	Total/NA	Water	PrecSep-21	
500-242591-9	HEN_23	Total/NA	Water	PrecSep-21	
500-242591-10	HEN_23_FD	Total/NA	Water	PrecSep-21	
500-242591-11	HEN_49	Total/NA	Water	PrecSep-21	
500-242591-12	HEN_22&D	Total/NA	Water	PrecSep-21	
500-242591-13	HEN_22	Total/NA	Water	PrecSep-21	
MB 160-637553/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-637553/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
500-242591-11 MS	HEN_49_MS	Total/NA	Water	PrecSep-21	
500-242591-11 MSD	HEN_49_MSD	Total/NA	Water	PrecSep-21	

Prep Batch: 637555

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-7	HEN_51	Total/NA	Water	PrecSep_0	
500-242591-8	HEN_51_DUP	Total/NA	Water	PrecSep_0	
500-242591-9	HEN_23	Total/NA	Water	PrecSep_0	
500-242591-10	HEN_23_FD	Total/NA	Water	PrecSep_0	
500-242591-11	HEN_49	Total/NA	Water	PrecSep_0	
500-242591-12	HEN_22&D	Total/NA	Water	PrecSep_0	
500-242591-13	HEN_22	Total/NA	Water	PrecSep_0	
MB 160-637555/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-637555/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
500-242591-11 MS	HEN_49_MS	Total/NA	Water	PrecSep_0	
500-242591-11 MSD	HEN_49_MSD	Total/NA	Water	PrecSep_0	

Prep Batch: 638356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-242591-39	HEN_FB	Total/NA	Water	PrecSep-21	

QC Association Summary

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Rad (Continued)

Prep Batch: 638356 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
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
500-242591-39	HEN_FB	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

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-637386/1-A
Matrix: Water
Analysis Batch: 640663

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637386

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03314	U	0.0919	0.0920	1.00	0.173	pCi/L	11/17/23 11:11	12/14/23 13:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*30 - 110*	*11/17/23 11:11*	*12/14/23 13:44*	*1*

Lab Sample ID: LCS 160-637386/2-A
Matrix: Water
Analysis Batch: 640663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637386

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.63		1.20	1.00	0.164	pCi/L	94	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*104*		*30 - 110*

Lab Sample ID: MB 160-637553/1-A
Matrix: Water
Analysis Batch: 641109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637553

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06452	U	0.151	0.151	1.00	0.278	pCi/L	11/20/23 10:14	12/18/23 16:50	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*30 - 110*	*11/20/23 10:14*	*12/18/23 16:50*	*1*

Lab Sample ID: LCS 160-637553/2-A
Matrix: Water
Analysis Batch: 641109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637553

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.66		1.35	1.00	0.243	pCi/L	94	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*103*		*30 - 110*

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 641229

Client Sample ID: HEN_49_MS
Prep Type: Total/NA
Prep Batch: 637553

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226	0.142	U	11.3	9.482		1.24	1.00	0.389	pCi/L	83	60 - 140		

QC Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

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

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 641229

Client Sample ID: HEN_49_MS
Prep Type: Total/NA
Prep Batch: 637553

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	97.7		30 - 110

Lab Sample ID: 500-242591-11 MSD
Matrix: Water
Analysis Batch: 641229

Client Sample ID: HEN_49_MSD
Prep Type: Total/NA
Prep Batch: 637553

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-226	0.142	U	11.4	9.989		1.27	1.00	0.308	pCi/L	86	60 - 140	0.20	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	106		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 Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
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 Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
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 160-637387/1-A
Matrix: Water
Analysis Batch: 640391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637387

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4813	U	0.354	0.357	1.00	0.542	pCi/L	11/17/23 11:22	12/12/23 16:06	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	100		30 - 110	11/17/23 11:22	12/12/23 16:06	1

QC Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

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

Lab Sample ID: MB 160-637387/1-A
Matrix: Water
Analysis Batch: 640391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637387

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Y Carrier	79.6		30 - 110	11/17/23 11:22	12/12/23 16:06	1

Lab Sample ID: LCS 160-637387/2-A
Matrix: Water
Analysis Batch: 640391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637387

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.65	8.210		1.14	1.00	0.512	pCi/L	107	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	104		30 - 110
Y Carrier	83.0		30 - 110

Lab Sample ID: MB 160-637555/1-A
Matrix: Water
Analysis Batch: 641109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 637555

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.002055	U	0.236	0.236	1.00	0.449	pCi/L	11/20/23 10:18	12/18/23 11:47	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	104		30 - 110	11/20/23 10:18	12/18/23 11:47	1
Y Carrier	77.0		30 - 110	11/20/23 10:18	12/18/23 11:47	1

Lab Sample ID: LCS 160-637555/2-A
Matrix: Water
Analysis Batch: 641109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 637555

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			7.63	8.364		1.14	1.00	0.490	pCi/L	110	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	103		30 - 110
Y Carrier	83.0		30 - 110

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 641109

Client Sample ID: HEN_49_MS
Prep Type: Total/NA
Prep Batch: 637555

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228	0.496		7.62	9.109		1.26	1.00	0.513	pCi/L	113	60 - 140		

QC Sample Results

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

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

Lab Sample ID: 500-242591-11 MS
Matrix: Water
Analysis Batch: 641109

Client Sample ID: HEN_49_MS
Prep Type: Total/NA
Prep Batch: 637555

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	97.7		30 - 110
Y Carrier	78.1		30 - 110

Lab Sample ID: 500-242591-11 MSD
Matrix: Water
Analysis Batch: 641268

Client Sample ID: HEN_49_MSD
Prep Type: Total/NA
Prep Batch: 637555

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228	0.496		7.69	8.021		1.13	1.00	0.527	pCi/L	98	60 - 140	0.46	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	106		30 - 110
Y Carrier	76.3		30 - 110

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

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_21R
Date Collected: 11/14/23 16:22
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637386	KAC	EET SL	11/17/23 11:11
Total/NA	Analysis	903.0		1	640734	MLK	EET SL	12/14/23 13:54
Total/NA	Prep	PrecSep_0			637387	KAC	EET SL	11/17/23 11:22
Total/NA	Analysis	904.0		1	640391	FLC	EET SL	12/12/23 16:09
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_32
Date Collected: 11/14/23 12:44
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637386	KAC	EET SL	11/17/23 11:11
Total/NA	Analysis	903.0		1	640734	MLK	EET SL	12/14/23 13:54
Total/NA	Prep	PrecSep_0			637387	KAC	EET SL	11/17/23 11:22
Total/NA	Analysis	904.0		1	640391	FLC	EET SL	12/12/23 16:09
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_50
Date Collected: 11/14/23 09:47
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637386	KAC	EET SL	11/17/23 11:11
Total/NA	Analysis	903.0		1	640734	MLK	EET SL	12/14/23 13:53
Total/NA	Prep	PrecSep_0			637387	KAC	EET SL	11/17/23 11:22
Total/NA	Analysis	904.0		1	640391	FLC	EET SL	12/12/23 16:09
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_34
Date Collected: 11/14/23 11:26
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637386	KAC	EET SL	11/17/23 11:11
Total/NA	Analysis	903.0		1	640737	FLC	EET SL	12/14/23 13:47
Total/NA	Prep	PrecSep_0			637387	KAC	EET SL	11/17/23 11:22
Total/NA	Analysis	904.0		1	640391	FLC	EET SL	12/12/23 16:09
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Lab Chronicle

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_27
Date Collected: 11/14/23 13:37
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637386	KAC	EET SL	11/17/23 11:11
Total/NA	Analysis	903.0		1	640737	FLC	EET SL	12/14/23 13:47
Total/NA	Prep	PrecSep_0			637387	KAC	EET SL	11/17/23 11:22
Total/NA	Analysis	904.0		1	640404	FLC	EET SL	12/12/23 16:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_35
Date Collected: 11/15/23 08:56
Date Received: 11/15/23 11:40

Lab Sample ID: 500-242591-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637386	KAC	EET SL	11/17/23 11:11
Total/NA	Analysis	903.0		1	640737	FLC	EET SL	12/14/23 13:48
Total/NA	Prep	PrecSep_0			637387	KAC	EET SL	11/17/23 11:22
Total/NA	Analysis	904.0		1	640404	FLC	EET SL	12/12/23 16:05
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_51
Date Collected: 11/15/23 10:42
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637553	KAC	EET SL	11/20/23 10:14
Total/NA	Analysis	903.0		1	641268	FLC	EET SL	12/18/23 17:00
Total/NA	Prep	PrecSep_0			637555	KAC	EET SL	11/20/23 10:18
Total/NA	Analysis	904.0		1	641109	FLC	EET SL	12/18/23 11:51
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_51_DUP
Date Collected: 11/15/23 10:47
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637553	KAC	EET SL	11/20/23 10:14
Total/NA	Analysis	903.0		1	641268	FLC	EET SL	12/18/23 17:00
Total/NA	Prep	PrecSep_0			637555	KAC	EET SL	11/20/23 10:18
Total/NA	Analysis	904.0		1	641109	FLC	EET SL	12/18/23 11:51
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Lab Chronicle

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_23
Date Collected: 11/15/23 12:36
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637553	KAC	EET SL	11/20/23 10:14
Total/NA	Analysis	903.0		1	641268	FLC	EET SL	12/18/23 17:00
Total/NA	Prep	PrecSep_0			637555	KAC	EET SL	11/20/23 10:18
Total/NA	Analysis	904.0		1	641109	FLC	EET SL	12/18/23 11:52
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_23_FD
Date Collected: 11/15/23 12:41
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637553	KAC	EET SL	11/20/23 10:14
Total/NA	Analysis	903.0		1	641268	FLC	EET SL	12/18/23 17:00
Total/NA	Prep	PrecSep_0			637555	KAC	EET SL	11/20/23 10:18
Total/NA	Analysis	904.0		1	641109	FLC	EET SL	12/18/23 11:52
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_49
Date Collected: 11/15/23 13:58
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637553	KAC	EET SL	11/20/23 10:14
Total/NA	Analysis	903.0		1	641268	FLC	EET SL	12/18/23 17:00
Total/NA	Prep	PrecSep_0			637555	KAC	EET SL	11/20/23 10:18
Total/NA	Analysis	904.0		1	641109	FLC	EET SL	12/18/23 11:52
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_22&D
Date Collected: 11/15/23 15:37
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637553	KAC	EET SL	11/20/23 10:14
Total/NA	Analysis	903.0		1	641229	EMH	EET SL	12/18/23 16:56
Total/NA	Prep	PrecSep_0			637555	KAC	EET SL	11/20/23 10:18
Total/NA	Analysis	904.0		1	641268	FLC	EET SL	12/18/23 11:51
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Lab Chronicle

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

Job ID: 500-242591-6
SDG: HEN_845_804_RAD

Client Sample ID: HEN_22

Date Collected: 11/15/23 16:18
Date Received: 11/16/23 11:20

Lab Sample ID: 500-242591-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			637553	KAC	EET SL	11/20/23 10:14
Total/NA	Analysis	903.0		1	641229	EMH	EET SL	12/18/23 16:56
Total/NA	Prep	PrecSep_0			637555	KAC	EET SL	11/20/23 10:18
Total/NA	Analysis	904.0		1	641268	FLC	EET SL	12/18/23 11:52
Total/NA	Analysis	Ra226_Ra228 Pos		1	641292	EMH	EET SL	12/18/23 22:51

Client Sample ID: HEN_FB

Date Collected: 11/20/23 13:20
Date Received: 11/21/23 08:06

Lab Sample ID: 500-242591-39
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 16:29
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

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

Job ID: 590-242591-6
SDG: HEN_845_804_RAD

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

500-242591

CHAIN-OF-CUSTODY / Analytical Request Document

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

500-242591 COC

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE:	IL	

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	D
WATER	W
WASTE WATER	WT
PRODUCT	W
SOIL/SOLID	W
OIL	P
WIPE	SL
AIR	OL
OTHER	W
TISSUE	P
	AR
	OT
	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_21R	W	G	11/14/23	1622		8	4		4									X				X	X	X		X			
2																														
3																														
4																														
5					TJD 11/15/23																									
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-15-23	09:15		11-15-23	945	
		11-15-23	1140		11/15/23	1140	

CUSTODY SEALS #
2299554 &
2299555

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	Trevor Dempsey				
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	11-15-23	11-15-23		

Trevor Dempsey

01/04/24 (Rev. 1)

Temp: 5.9, 5.4, 5.4

COC # HEN-00E

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

Section A Required Client Information:

Company:	Vistra Corp
Address:	133 S 4th, Suite 206
	Springfield, IL 62701
Email To:	Brian.Voelker@VistraCorp.com
Phone:	(217) 753-8911 Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information:

Report To:	Brian Voelker
Copy To:	Jason Stuckey
Purchase Order No.	
Project Name:	23Q4 GW SAMPLING
Project Number:	50022357

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	NIKKI PAGANO
Profile #:	

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

Section D Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	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_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_32	W	G	11-14-23	12:44		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	[signature] RAMBOLL	11-15-23	09:15	[signature]	11-15-23	0945	
	[signature]	11-15-23	1140	[signature]	11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11-15-23

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CUSTODY SEALS #
2294554 &
2294555

COC #: HEN - QRT4

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

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

ITEM #	SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_50	GW	G	11-14-23	0947		8	4		4									X				X	X	X		X		
2																													
3																													
4																													
5																													
6					TJD	11-15-23																							
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	Trevor Dempsey / Ramboll	11-15-23	0915		11/15/23	0915	
		11/15/23	1140		11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Trevor Dempsey

SIGNATURE of SAMPLER: Trevor Dempsey

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Custody Seals #:
2299554
2299555

QC KLT 11-15-23

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

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Section D Required Client Information

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

ITEM #	SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
																Requested Analysis Filtered (Y/N)																
1	HEN_34	W	G	11-14-23	11:26		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
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10																															
11																															
12																															
13																															
14																															
15																															
16																															

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-15-23	09'15		11-15-23	0945	
		11-15-23	1100		11/15/23	1148	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #

2299564 &

2299565

QC: TJD

500-242597

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 1

Section A Required Client Information.

Company:	Vistra Corp
Address	133 S 4th, Suite 206
	Springfield, IL 62701
Email To:	Brian.Voelker@VistraCorp.com
Phone: (217) 753-8911	Fax:
Requested Due Date/TAT:	10 day

Section B Required Project Information.

Report To:	Brian Voelker
Copy To:	Jason Stuckey
Purchase Order No.	
Project Name:	2304 GW SAMPLING
Project Number:	50022357

Section C Invoice Information

Attention	Jason Stuckey
Company Name:	Vistra Corp
Address	see Section A
Quote Reference:	
Project Manager:	PAGANO, NIKKI
Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_27	W	G	11-14-23	13.37	0.0	8	4		4									X				X	X	X		X		
2						4.2																							
3						11-15-23																							
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-15-23	09:15		11/15/23	0945	
		11-15-23	1040		11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CUSTODY SEALS #
2299564 &
2299C65

QC: TJD

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

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER

UST RCRA OTHER

Site Location STATE: IL

Section D Required Client Information

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

SAMPLE ID
(A-Z, 0-9 / -)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West		Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_35	WG	G	11-15-23	08:56		8	4		4									X				X	X	X		X			
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

4

11/15/23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0		11-15-23	09 15		11/15/23	0915	
		11/15/23	1140		11/15/23	1140	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #

2299564 & 2299565

QC: TJD

COC# HEN-0207

500-242591 COC

Required Client Information		Required Project Information		Invoice Information	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention	Jason Stuckey
Address	13498 E 900th St	Copy To	Jason Stuckey	Company Name	Vistra Corp
				Address	see Section A
Email To	Brian.Voelker@VistraCorp.com	Purchase Order No		Quote Reference:	
Phone	(217) 753-8911 Fax:	Project Name	23Q4 GW SAMPLING	Project Manager	NIKKI PAGANO
Requested Due Date/TAT:	10 day	Project Number	2285	Profile #:	

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Section D Required Client Information

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

ITEM #	SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	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_WPCP_EAST	HEN_WPCP_WEST	HEN_000_H	HEN_000_RAD	Residual Chlorine (Y/N)	Project No./ Lab I.D.
	Requested Analysis Filtered (Y/N) – SELECT															Y/N			Y				Y		Y	Y			
1	HEN_49																												11-16-23
2	HEN_50																												11-16-23
3	HEN_51	W	G	11-15-23	10 42		8	4		4									X				X		X	X	X		
4	HEN_52																												
5	HEN_54																												
6	HEN_55																												
7	SG02																												
8	XSG01																												
9	Field Blank																												
10	HEN-51-DUP	W	G	11-15-23	10.47		8	4		4									X				X		X	X	X		
11																													
12																													
13																													
14																													
15																													
16																													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-16-23	09:30		11/16/23	0730	
		11-16-23	1120		11/16/23	1120	

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	KRISTEN THEESFELD				
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY)	11-16-23		

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

EUROFINS COURIER PICKUP

3.4→3.2, 4.4→4.2, 3.2→3.0 QC: TJD

HEN 008

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

Section A Required Client Information		Section B Required Project Information		Section C Invoice Information	
Company:	Vistra Corp	Report To:	Brian Voelker	Attention	Jason Stuckey
Address	133 S 4th, Suite 206	Copy To:	Jason Stuckey	Company Name	Vistra Corp
	Springfield, IL 62701			Address	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.		Quote Reference	
Phone:	(217) 753-8911 Fax:	Project Name:	2304 GW SAMPLING	Project Manager:	NIKKI PAGANO
Requested Due Date/TAT	10 day	Project Number:	50022357	Profile #:	

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

Requested Analysis Filtered (Y/N) SELECT

Section D Required Client Information

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	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_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_23	W	G	11-15-23	12:34														X				X	X	X		X		
2	HEN_23_FD	W	G	11-15-23	12:41														X				X	X	X		X		
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													
13																													
14																													
15																													
16																													

18

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	RAMBOLL	11-16-23	09:30		11/16/23	0930	
		11-16-23	1120		11/16/23	1120	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS #22 11/16/22

EUROFINS COURIER PICKUP

QC TJD

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

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Section D Required Client Information

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N) - SELECT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804 (Y)	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804 (Y)	HEN_000_H	HEN_000_RAD (Y)	HEN_WPCP_East	HEN_WPCP_West (Y)			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_49	W	G	11-15-23	13:58		8	4		4									X				X	X	X		X				
2	HEN_49 MS/MSD	W	G	11-15-23	13:58		16	8		8									X				X	X	X		X				
3																															
4																															
5																															
6																															
7																															
8																															
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11																															
12																															
13																															
14																															
15																															
16																															

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	[signature]	11-16-23	09:30	[signature]	11-16-23	09:30	
	[signature]	11-16-23	11:20	[signature]	11/16/23	11:20	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KRISTEN THEESFELD

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 11-15-23

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

CUSTODY SEALS 11-16-23 #

EUROFINS COURIER PICKUP

QC: [illegible]

COC# HEN
500-242591

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page 11/16/23 of 1

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

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N) SELECT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./Lab I.D.
Filtered (Y/N)																			Y				Y		Y		Y				
1	HEN_22&D	W	G	11-15-23	15:34		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

11-15-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0	K. RAMBOLL	11-16-23	09:30	[illegible]	11-16-23	09:30	
	[illegible]	11-16-23	11:50	[illegible]	11/16/23	11:20	

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER.	KRISTEN THEESFELD		
SIGNATURE of SAMPLER.	[signature]	DATE Signed (MM/DD/YY):	11-15-23

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

CUSTODY SEALS 11-16-23
EUROFINS
COURIER PICKUP

QC: TJD

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

Section A Required Client Information		Section B Required Project Information:		Section C Invoice Information:	
Company:	Vistra Corp	Report To	Brian Voelker	Attention	Jason Stuckey
Address:	133 S 4th, Suite 206	Copy To:	Jason Stuckey	Company Name	Vistra Corp
	Springfield, IL 62701			Address	see Section A
Email To:	Brian.Voelker@VistraCorp.com	Purchase Order No.		Quote Reference	
Phone	(217) 753-8911 Fax:	Project Name	2304 GW SAMPLING	Project Manager	NIKKI PAGANO
Requested Due Date/TAT:	10 day	Project Number	50022357	Profile #:	

REGULATORY AGENCY		
NPDES	GROUND WATER	DRINKING WATER
UST	RCRA	OTHER
Site Location STATE	IL	

Requested Analysis Filtered (Y/N) - SELECT

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_H	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_22	GW	G	11.15.23	16:18		8	4		4									X				X	X	X		X				
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0		11-11-23	09:30		11/16/23	9:30	
		11-16-23	11:20		11/16/23	11:20	

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER	KRISTEN THEESFELD		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER		DATE Signed (MM/DD/YY) 11-15-23				

EUROFINS COURIER PICKUP

QC TJP

HEN 0032
500-242591

Page 1 of 1

CHAIN-OF-CUSTODY / Analytical Request Document

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

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 /) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801	HEN_845_802-805	HEN_845_803	HEN_845_804	HEN_000_FB	HEN_000_RAD	HEN_WPCP_East	HEN_WPCP_West			Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	HEN_FB	WG	G	11-20-23	1320		16	6	3	3	3	1					X			X			X	X	X	X				short holds-NO2
2							16																							
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

11-20-23

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HEN-23Q4 Rev 0		11-21-23	0800		11/21/23	0806	

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		DATE Signed (MM/DD/YY) 11-20-23				

DROP @ LAB
BTEX IN COOLER
W/455

* Dissolved metals were filtered in field, and need preservative added in lab

QC TJD

01/04/24 (Rev. 1)

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181588.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/1/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
HEN_51 (500-242591-7)	11/15/23	10:42 Central		Water			X	X	X	2	
HEN_51_DUP (500-242591-8)	11/15/23	10:47 Central		Water			X	X	X	2	
HEN_23 (500-242591-9)	11/15/23	12:36 Central		Water			X	X	X	2	
HEN_23_FD (500-242591-10)	11/15/23	12:41 Central		Water			X	X	X	2	
HEN_49 (500-242591-11)	11/15/23	13:58 Central		Water			X	X	X	2	
HEN_49 (500-242591-11MS)	11/15/23	13:58 Central	MS	Water			X	X	X	2	
HEN_49 (500-242591-11MSD)	11/15/23	13:58 Central	MSD	Water			X	X	X	2	
HEN_22&D (500-242591-12)	11/15/23	15:34 Central		Water			X	X	X	2	
HEN_22 (500-242591-13)	11/15/23	16:18 Central		Water			X	X	X	2	

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

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Stephanie Hernandez	11/16/23 1600	EEIA	M. Pinette	NOV 17 2023 0830	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181588.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 12/1/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
HEN_51 (500-242591-7)	11/15/23	10:42 Central		Water			X	X	X	2	
HEN_51_DUP (500-242591-8)	11/15/23	10:47 Central		Water			X	X	X	2	
HEN_23 (500-242591-9)	11/15/23	12:36 Central		Water			X	X	X	2	
HEN_23_FD (500-242591-10)	11/15/23	12:41 Central		Water			X	X	X	2	
HEN_49 (500-242591-11)	11/15/23	13:58 Central		Water			X	X	X	2	
HEN_49 (500-242591-11MS)	11/15/23	13:58 Central	MS	Water			X	X	X	2	
HEN_49 (500-242591-11MSD)	11/15/23	13:58 Central	MSD	Water			X	X	X	2	
HEN_22&D (500-242591-12)	11/15/23	15:34 Central		Water			X	X	X	2	
HEN_22 (500-242591-13)	11/15/23	16:18 Central		Water			X	X	X	2	

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

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

	Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company
	Stephanie Hernandez	11/16/23 1600	EEIA	M. Pinette	NOV 17 2023 0830	
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181630.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/30/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 AJ	904.0/PrecSep_0 AJ	Ra226_228GFPC_P/ AJ	903.0/PrecSep_21 AQ	904.0/PrecSep_0 AQ	Ra226_228GFPC_P/ AQ	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB					Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
HEN_03R (500-242591-14)	11/16/23	09:25 Central		Water			X	X	X	X	X	X	X	X	X					2	
HEN_03R_MS (500-242591-14MS)	11/16/23	09:25 Central	MS	Water			X	X	X	X	X	X	X	X	X					2	
HEN_03R_MSD (500-242591-14MSD)	11/16/23	09:25 Central	MSD	Water			X	X	X	X	X	X	X	X	X					2	
HEN_18#S (500-242591-15)	11/16/23	11:55 Central		Water			X	X	X	X	X	X	X	X	X					2	
HEN_18&D (500-242591-16)	11/16/23	11:55 Central		Water			X	X	X	X	X	X	X	X	X					2	

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

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: NOV 20 2023 0920	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181630.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-1
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/30/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 AJ	904.0/PrecSep_0 AJ	Ra226_228GFPC_P/ AJ	903.0/PrecSep_21 AQ	904.0/PrecSep_0 AQ	Ra226_228GFPC_P/ AQ	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB					Total Number of containers	Special Instructions/Note:
			Preservation Code:																		
HEN_03R (500-242591-14)	11/16/23	09:25 Central		Water			X	X	X	X	X	X	X	X	X					2	
HEN_03R_MS (500-242591-14MS)	11/16/23	09:25 Central	MS	Water			X	X	X	X	X	X	X	X	X					2	
HEN_03R_MSD (500-242591-14MSD)	11/16/23	09:25 Central	MSD	Water			X	X	X	X	X	X	X	X	X					2	
HEN_18#S (500-242591-15)	11/16/23	11:55 Central		Water			X	X	X	X	X	X	X	X	X					2	
HEN_18&D (500-242591-16)	11/16/23	11:55 Central		Water			X	X	X	X	X	X	X	X	X					2	

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

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: NOV 20 2023 0920	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181722.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-16
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/30/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 AL	904.0/PrecSep_0 AL	Ra226_228GFPC_P/ AL	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
HEN_54 (500-242591-22)	11/17/23	09:02 Central		Water			X	X	X	2	
HEN_47 (500-242591-23)	11/17/23	09:33 Central		Water			X	X	X	2	
HEN_12 (500-242591-24)	11/17/23	10:14 Central		Water			X	X	X	2	
HEN_13 (500-242591-25)	11/17/23	10:21 Central		Water			X	X	X	2	
HEN_08&D (500-242591-26)	11/17/23	12:31 Central		Water			X	X	X	2	
HEN_08 (500-242591-27)	11/17/23	12:32 Central		Water			X	X	X	2	
HEN_08_FD (500-242591-28)	11/17/23	12:37 Central		Water			X	X	X	2	
HEN_17 (500-242591-30)	11/17/23	14:17 Central		Water			X	X	X	2	
HEN_16 (500-242591-31)	11/17/23	14:29 Central		Water			X	X	X	2	

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

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FED EX		
Relinquished by: Stephanie Hennessey	Date/Time: 11/20/23 1300	Company: EEIA	Received by: [illegible]	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: [illegible] Linette	Date/Time: NOV 21 2023 0845	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181722.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-16
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/30/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 AL	904.0/PrecSep_0 AL	Ra226_228GFPC_P/ AL	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
HEN_54 (500-242591-22)	11/17/23	09:02 Central		Water			X	X	X	2	
HEN_47 (500-242591-23)	11/17/23	09:33 Central		Water			X	X	X	2	
HEN_12 (500-242591-24)	11/17/23	10:14 Central		Water			X	X	X	2	
HEN_13 (500-242591-25)	11/17/23	10:21 Central		Water			X	X	X	2	
HEN_08&D (500-242591-26)	11/17/23	12:31 Central		Water			X	X	X	2	
HEN_08 (500-242591-27)	11/17/23	12:32 Central		Water			X	X	X	2	
HEN_08_FD (500-242591-28)	11/17/23	12:37 Central		Water			X	X	X	2	
HEN_17 (500-242591-30)	11/17/23	14:17 Central		Water			X	X	X	2	
HEN_16 (500-242591-31)	11/17/23	14:29 Central		Water			X	X	X	2	

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

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FED EX		
Relinquished by: Stephanie Hennessey	Date/Time: 11/20/23 1300	Company: EEIA	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: NOV 21 2023 0845	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181843.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-2
Address: 13715 Rider Trail North,	Due Date Requested: 12/18/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
HEN_45#S (500-242591-32)	11/20/23	09:15 Central		Water			X	X	X	2	
HEN_45#S_FD (500-242591-33)	11/20/23	09:20 Central		Water			X	X	X	2	
HEN_46 (500-242591-35)	11/20/23	09:13 Central		Water			X	X	X	2	
HEN_52 (500-242591-37)	11/20/23	10:18 Central		Water			X	X	X	2	
HEN_07 (500-242591-38)	11/20/23	13:12 Central		Water			X	X	X	2	
HEN_FB (500-242591-39)	11/20/23	13:20 Central		Water			X	X	X	2	

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

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Shari Scott	11/21/23 1510				
2	Relinquished by:	Date/Time:	Company	Received by: M Pinette	Date/Time: NOV 22 2023 0840	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

ATTACHMENT B.
845 QUARTERLY REPORT - QUARTER 4, 2023
HENNEPIN POWER PLANT, WEST ASH POND SYSTEM
HEN-845-804

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Campbell, Donna L	Carrier Tracking No(s):	COC No: 500-181843.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Donna.Campbell@et.eurofinsus.com	State of Origin: Illinois	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Illinois		Job #: 500-242591-2
Address: 13715 Rider Trail North,	Due Date Requested: 12/18/2023			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: HEN-23Q4	Project #: 50022357			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	903.0/PrecSep_21 BB	904.0/PrecSep_0 BB	Ra226_228GFPC_P/ BB	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
HEN_45#S (500-242591-32)	11/20/23	09:15 Central		Water			X	X	X	2	
HEN_45#S_FD (500-242591-33)	11/20/23	09:20 Central		Water			X	X	X	2	
HEN_46 (500-242591-35)	11/20/23	09:13 Central		Water			X	X	X	2	
HEN_52 (500-242591-37)	11/20/23	10:18 Central		Water			X	X	X	2	
HEN_07 (500-242591-38)	11/20/23	13:12 Central		Water			X	X	X	2	
HEN_FB (500-242591-39)	11/20/23	13:20 Central		Water			X	X	X	2	

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

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

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Shari Scott	11/21/23 1510				
2	Relinquished by:	Date/Time:	Company	Received by: M Pinette	Date/Time: NOV 22 2023 0840	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Vistra Energy Corp

Job Number: 500-242591-6
SDG Number: HEN_845_804_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: 500-242591-6
SDG Number: HEN_845_804_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: 500-242591-6
SDG Number: HEN_845_804_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 </= 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: 500-242591-6
SDG Number: HEN_845_804_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 </= 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: 500-242591-6
SDG Number: HEN_845_804_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 </= 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: 500-242591-6
SDG Number: HEN_845_804_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

Job ID: 500-242591-6
SDG: HEN_845_804_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)
500-242591-1	HEN_21R	96.9
500-242591-2	HEN_32	99.0
500-242591-3	HEN_50	93.1
500-242591-4	HEN_34	95.9
500-242591-5	HEN_27	97.7
500-242591-6	HEN_35	92.5
500-242591-7	HEN_51	92.3
500-242591-8	HEN_51_DUP	87.7
500-242591-9	HEN_23	101
500-242591-10	HEN_23_FD	106
500-242591-11	HEN_49	102
500-242591-11 MS	HEN_49_MS	97.7
500-242591-11 MSD	HEN_49_MSD	106
500-242591-12	HEN_22&D	89.2
500-242591-13	HEN_22	99.5
500-242591-39	HEN_FB	95.4
LCS 160-637386/2-A	Lab Control Sample	104
LCS 160-637553/2-A	Lab Control Sample	103
LCS 160-638356/2-A	Lab Control Sample	96.4
MB 160-637386/1-A	Method Blank	100
MB 160-637553/1-A	Method Blank	104
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)
500-242591-1	HEN_21R	96.9	77.4
500-242591-2	HEN_32	99.0	81.1
500-242591-3	HEN_50	93.1	81.9
500-242591-4	HEN_34	95.9	76.6
500-242591-5	HEN_27	97.7	76.6
500-242591-6	HEN_35	92.5	78.5
500-242591-7	HEN_51	92.3	60.6
500-242591-8	HEN_51_DUP	87.7	79.6
500-242591-9	HEN_23	101	74.0
500-242591-10	HEN_23_FD	106	79.6
500-242591-11	HEN_49	102	74.4
500-242591-11 MS	HEN_49_MS	97.7	78.1
500-242591-11 MSD	HEN_49_MSD	106	76.3
500-242591-12	HEN_22&D	89.2	82.2
500-242591-13	HEN_22	99.5	75.1
500-242591-39	HEN_FB	95.4	79.3
LCS 160-637387/2-A	Lab Control Sample	104	83.0
LCS 160-637555/2-A	Lab Control Sample	103	83.0

Tracer/Carrier Summary

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

Job ID: 590-242591-6
SDG: HEN_845_804_RAD

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

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
Lab Sample ID	Client Sample ID	Ba (30-110)	Y (30-110)
LCS 160-638358/2-A	Lab Control Sample	96.4	83.4
MB 160-637387/1-A	Method Blank	100	79.6
MB 160-637555/1-A	Method Blank	104	77.0
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
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
21/21R	UA	E003	Antimony, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.003	0.001
21/21R	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/14/23	29	0	CB around T-S line	0.0189	0.001
21/21R	UA	E003	Barium, total	mg/L	12/10/15 - 11/14/23	29	0	CB around linear reg	0.319	0.156
21/21R	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.001	0.001
21/21R	UA	E003	Boron, total	mg/L	12/10/15 - 11/14/23	30	0	CB around T-S line	1.95	0.205
21/21R	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.0005	0.001
21/21R	UA	E003	Chloride, total	mg/L	12/10/15 - 11/14/23	32	0	CB around linear reg	98.2	108
21/21R	UA	E003	Chromium, total	mg/L	12/10/15 - 11/14/23	29	61	CB around T-S line	0.0015	0.00130
21/21R	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/14/23	29	71	CB around T-S line	0.001	0.00170
21/21R	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/14/23	30	9	CI around median	0.14	0.170
21/21R	UA	E003	Lead, total	mg/L	12/10/15 - 11/14/23	29	52	CB around T-S line	0.00139	0.001
21/21R	UA	E003	Lithium, total	mg/L	12/10/15 - 11/14/23	29	0	CB around linear reg	0.0211	0.0140
21/21R	UA	E003	Mercury, total	mg/L	12/10/15 - 11/14/23	29	97	CI around median	0.0002	0.0002
21/21R	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/14/23	29	3	CI around mean	0.00673	0.00200
21/21R	UA	E003	pH (field)	SU	12/10/15 - 11/14/23	32	0	CI around mean	7.3/7.5	6.7/7.4
21/21R	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/14/23	22	0	CI around mean	0.857	2.60
21/21R	UA	E003	Selenium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.0025	0.00110
21/21R	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/14/23	32	0	CB around linear reg	55.9	117
21/21R	UA	E003	Thallium, total	mg/L	12/10/15 - 11/14/23	29	100	All ND - Last	0.002	0.001
21/21R	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/14/23	30	0	CB around T-S line	625	830
22	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	32	91	CB around T-S line	0.001	0.001
22	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	36	74	CI around median	0.001	0.001
22	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	32	0	CI around median	0.0634	0.156
22	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.001	0.001
22	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	37	0	CB around T-S line	3.04	0.205
22	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	32	9	CB around T-S line	0.00517	0.001
22	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	39	0	CB around T-S line	89.5	108

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
22	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.005	0.00130
22	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	32	9	CI around mean	0.00192	0.00170
22	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	32	6	CI around median	0.15	0.170
22	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	32	97	CI around median	0.001	0.001
22	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	36	0	CB around T-S line	0.0436	0.0140
22	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0002	0.0002
22	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	36	0	CB around T-S line	0.0753	0.00200
22	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	35	0	CI around mean	7.5/7.7	6.7/7.4
22	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	23	0	CI around mean	0.365	2.60
22	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	32	6	CB around linear reg	0.0149	0.00110
22	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	39	0	CB around linear reg	103	117
22	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	32	94	CB around T-S line	0.002	0.001
22	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	39	0	CB around linear reg	585	830
22D	UA	E003	Antimony, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.003	0.001
22D	UA	E003	Arsenic, total	mg/L	09/17/19 - 11/15/23	16	6	CI around median	0.0012	0.001
22D	UA	E003	Barium, total	mg/L	09/17/19 - 11/15/23	16	0	CB around T-S line	0.0637	0.156
22D	UA	E003	Beryllium, total	mg/L	09/17/19 - 11/15/23	15	100	All ND - Last	0.001	0.001
22D	UA	E003	Boron, total	mg/L	09/17/19 - 11/15/23	16	0	CB around linear reg	1.2	0.205
22D	UA	E003	Cadmium, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.0005	0.001
22D	UA	E003	Chloride, total	mg/L	09/17/19 - 11/15/23	16	0	CB around linear reg	96.7	108
22D	UA	E003	Chromium, total	mg/L	09/17/19 - 11/15/23	16	88	CI around median	0.0015	0.00130
22D	UA	E003	Cobalt, total	mg/L	09/17/19 - 11/15/23	16	94	CI around median	0.001	0.00170
22D	UA	E003	Fluoride, total	mg/L	09/17/19 - 11/15/23	16	12	CI around median	0.11	0.170
22D	UA	E003	Lead, total	mg/L	09/17/19 - 11/15/23	16	94	CI around median	0.001	0.001
22D	UA	E003	Lithium, total	mg/L	09/17/19 - 11/15/23	16	0	CI around mean	0.0147	0.0140
22D	UA	E003	Mercury, total	mg/L	12/11/19 - 11/15/23	15	100	All ND - Last	0.0002	0.0002
22D	UA	E003	Molybdenum, total	mg/L	09/17/19 - 11/15/23	16	6	CI around geomean	0.00658	0.00200

ATTACHMENT C.
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845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
22D	UA	E003	pH (field)	SU	09/17/19 - 11/15/23	19	0	CI around mean	7.2/7.3	6.7/7.4
22D	UA	E003	Radium 226 + Radium 228, total	pCi/L	09/17/19 - 11/15/23	13	0	CI around mean	0.605	2.60
22D	UA	E003	Selenium, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.0025	0.00110
22D	UA	E003	Sulfate, total	mg/L	09/17/19 - 11/15/23	16	0	CB around linear reg	89	117
22D	UA	E003	Thallium, total	mg/L	09/17/19 - 11/15/23	16	100	All ND - Last	0.002	0.001
22D	UA	E003	Total Dissolved Solids	mg/L	09/17/19 - 11/15/23	16	0	CI around mean	601	830
23	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.003	0.001
23	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	36	95	CB around T-S line	0.001	0.001
23	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	32	0	CB around T-S line	0.0315	0.156
23	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.001	0.001
23	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	37	0	CB around T-S line	8.34	0.205
23	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.0005	0.001
23	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	39	1	CB around T-S line	51.3	108
23	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.005	0.00130
23	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.001	0.00170
23	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	32	6	CI around median	0.15	0.170
23	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.0005	0.001
23	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	36	6	CI around mean	0.00462	0.0140
23	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0002	0.0002
23	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	36	0	CI around median	0.0147	0.00200
23	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	34	0	CI around mean	7.4/7.5	6.7/7.4
23	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	23	0	CI around mean	0.281	2.60
23	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.0025	0.00110
23	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	39	0	CI around mean	423	117
23	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	32	100	All ND - Last	0.002	0.001
23	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	39	0	CI around mean	885	830
24/51	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.003	0.001

ATTACHMENT C.
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845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
24/51	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	34	0	CI around mean	0.0203	0.001
24/51	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	30	0	CB around linear reg	0.109	0.156
24/51	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.001	0.001
24/51	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	35	0	CB around linear reg	1.39	0.205
24/51	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0005	0.001
24/51	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	37	0	CB around T-S line	106	108
24/51	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	30	78	CB around T-S line	0.0015	0.00130
24/51	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	30	75	CI around median	0.001	0.00170
24/51	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	30	6	CI around median	0.14	0.170
24/51	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	30	66	CI around median	0.001	0.001
24/51	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	34	0	CB around T-S line	0.0232	0.0140
24/51	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	29	100	All ND - Last	0.0002	0.0002
24/51	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	34	3	CI around mean	0.00984	0.00200
24/51	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	32	0	CB around linear reg	7.2/7.4	6.7/7.4
24/51	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	22	0	CB around linear reg	1.25	2.60
24/51	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0025	0.00110
24/51	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	37	0	CB around linear reg	82.6	117
24/51	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.002	0.001
24/51	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	37	0	CI around mean	618	830
27	UA	E003	Antimony, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.003	0.001
27	UA	E003	Arsenic, total	mg/L	09/12/18 - 11/14/23	19	62	CI around median	0.001	0.001
27	UA	E003	Barium, total	mg/L	09/12/18 - 11/14/23	19	0	CI around geomean	0.0837	0.156
27	UA	E003	Beryllium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.001	0.001
27	UA	E003	Boron, total	mg/L	09/12/18 - 11/14/23	19	0	CB around linear reg	1.38	0.205
27	UA	E003	Cadmium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.0005	0.001
27	UA	E003	Chloride, total	mg/L	03/08/16 - 11/14/23	24	0	CB around linear reg	99.7	108
27	UA	E003	Chromium, total	mg/L	09/12/18 - 11/14/23	19	81	CI around median	0.0015	0.00130

ATTACHMENT C.
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845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
27	UA	E003	Cobalt, total	mg/L	09/12/18 - 11/14/23	19	10	CI around mean	0.00191	0.00170
27	UA	E003	Fluoride, total	mg/L	09/12/18 - 11/14/23	19	4	CI around median	0.12	0.170
27	UA	E003	Lead, total	mg/L	09/12/18 - 11/14/23	19	57	CI around median	0.001	0.001
27	UA	E003	Lithium, total	mg/L	09/12/18 - 11/14/23	19	0	CI around mean	0.0214	0.0140
27	UA	E003	Mercury, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.0002	0.0002
27	UA	E003	Molybdenum, total	mg/L	09/12/18 - 11/14/23	19	16	CI around median	0.0043	0.00200
27	UA	E003	pH (field)	SU	03/08/16 - 11/14/23	24	0	CI around mean	7.1/7.2	6.7/7.4
27	UA	E003	Radium 226 + Radium 228, total	pCi/L	09/12/18 - 11/14/23	13	0	CI around geomean	0.235	2.60
27	UA	E003	Selenium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.0025	0.00110
27	UA	E003	Sulfate, total	mg/L	03/08/16 - 11/14/23	24	0	CB around linear reg	88.5	117
27	UA	E003	Thallium, total	mg/L	09/12/18 - 11/14/23	19	100	All ND - Last	0.002	0.001
27	UA	E003	Total Dissolved Solids	mg/L	03/08/16 - 11/14/23	24	0	CI around median	642	830
35	UA	E003	Antimony, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.003	0.001
35	UA	E003	Arsenic, total	mg/L	12/09/15 - 11/15/23	31	81	CI around median	0.001	0.001
35	UA	E003	Barium, total	mg/L	12/09/15 - 11/15/23	31	0	CI around mean	0.0409	0.156
35	UA	E003	Beryllium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.001	0.001
35	UA	E003	Boron, total	mg/L	12/09/15 - 11/15/23	32	0	CB around linear reg	12.1	0.205
35	UA	E003	Cadmium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.0005	0.001
35	UA	E003	Chloride, total	mg/L	12/09/15 - 11/15/23	32	0	CI around mean	37.8	108
35	UA	E003	Chromium, total	mg/L	12/09/15 - 11/15/23	31	97	CB around T-S line	0.0015	0.00130
35	UA	E003	Cobalt, total	mg/L	12/09/15 - 11/15/23	31	42	CB around T-S line	0.001	0.00170
35	UA	E003	Fluoride, total	mg/L	12/09/15 - 11/15/23	32	3	CI around median	0.17	0.170
35	UA	E003	Lead, total	mg/L	12/09/15 - 11/15/23	31	90	CI around median	0.001	0.001
35	UA	E003	Lithium, total	mg/L	12/09/15 - 11/15/23	31	0	CI around mean	0.025	0.0140
35	UA	E003	Mercury, total	mg/L	12/09/15 - 11/15/23	30	100	All ND - Last	0.0002	0.0002
35	UA	E003	Molybdenum, total	mg/L	12/09/15 - 11/15/23	31	0	CI around mean	0.0669	0.00200
35	UA	E003	pH (field)	SU	12/09/15 - 11/15/23	32	0	CB around linear reg	6.7/7.0	6.7/7.4

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
35	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 11/15/23	24	0	CI around median	0.31	2.60
35	UA	E003	Selenium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.0025	0.00110
35	UA	E003	Sulfate, total	mg/L	12/09/15 - 11/15/23	32	0	CB around linear reg	659	117
35	UA	E003	Thallium, total	mg/L	12/09/15 - 11/15/23	31	100	All ND - Last	0.002	0.001
35	UA	E003	Total Dissolved Solids	mg/L	12/09/15 - 11/15/23	32	0	CB around linear reg	1,280	830
49	UA	E003	Antimony, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.003	0.001
49	UA	E003	Arsenic, total	mg/L	12/10/15 - 11/15/23	31	97	CI around median	0.001	0.001
49	UA	E003	Barium, total	mg/L	12/10/15 - 11/15/23	31	0	CB around T-S line	0.0607	0.156
49	UA	E003	Beryllium, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.001	0.001
49	UA	E003	Boron, total	mg/L	12/10/15 - 11/15/23	32	0	CB around linear reg	0.46	0.205
49	UA	E003	Cadmium, total	mg/L	12/10/15 - 11/15/23	31	29	CB around linear reg	0.00153	0.001
49	UA	E003	Chloride, total	mg/L	12/10/15 - 11/15/23	32	0	CI around median	100	108
49	UA	E003	Chromium, total	mg/L	12/10/15 - 11/15/23	31	97	CB around T-S line	0.0015	0.00130
49	UA	E003	Cobalt, total	mg/L	12/10/15 - 11/15/23	31	0	CI around mean	0.00444	0.00170
49	UA	E003	Fluoride, total	mg/L	12/10/15 - 11/15/23	32	3	CI around median	0.15	0.170
49	UA	E003	Lead, total	mg/L	12/10/15 - 11/15/23	31	94	CI around median	0.001	0.001
49	UA	E003	Lithium, total	mg/L	12/10/15 - 11/15/23	31	0	CI around mean	0.024	0.0140
49	UA	E003	Mercury, total	mg/L	12/10/15 - 11/15/23	30	100	All ND - Last	0.0002	0.0002
49	UA	E003	Molybdenum, total	mg/L	12/10/15 - 11/15/23	31	0	CB around T-S line	0.023	0.00200
49	UA	E003	pH (field)	SU	12/10/15 - 11/15/23	33	0	CI around mean	7.1/7.2	6.7/7.4
49	UA	E003	Radium 226 + Radium 228, total	pCi/L	12/10/15 - 11/15/23	24	0	CI around mean	0.324	2.60
49	UA	E003	Selenium, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.0025	0.00110
49	UA	E003	Sulfate, total	mg/L	12/10/15 - 11/15/23	32	0	CB around linear reg	69.1	117
49	UA	E003	Thallium, total	mg/L	12/10/15 - 11/15/23	31	100	All ND - Last	0.002	0.001
49	UA	E003	Total Dissolved Solids	mg/L	12/10/15 - 11/15/23	32	0	CB around linear reg	572	830
50	UA	E003	Antimony, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.003	0.001
50	UA	E003	Arsenic, total	mg/L	09/17/19 - 11/14/23	16	94	CI around median	0.001	0.001

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 4, 2023
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
50	UA	E003	Barium, total	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	0.0859	0.156
50	UA	E003	Beryllium, total	mg/L	09/17/19 - 11/14/23	15	100	All ND - Last	0.001	0.001
50	UA	E003	Boron, total	mg/L	09/17/19 - 11/14/23	16	0	CI around geomean	0.697	0.205
50	UA	E003	Cadmium, total	mg/L	09/17/19 - 11/14/23	16	6	CI around median	0.0012	0.001
50	UA	E003	Chloride, total	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	88.9	108
50	UA	E003	Chromium, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.005	0.00130
50	UA	E003	Cobalt, total	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	0.00423	0.00170
50	UA	E003	Fluoride, total	mg/L	09/17/19 - 11/14/23	16	25	CB around T-S line	0.112	0.170
50	UA	E003	Lead, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.0005	0.001
50	UA	E003	Lithium, total	mg/L	09/17/19 - 11/14/23	16	0	CI around median	0.0201	0.0140
50	UA	E003	Mercury, total	mg/L	12/11/19 - 11/14/23	15	100	All ND - Last	0.0002	0.0002
50	UA	E003	Molybdenum, total	mg/L	09/17/19 - 11/14/23	16	0	CB around T-S line	0.0287	0.00200
50	UA	E003	pH (field)	SU	09/17/19 - 11/14/23	19	0	CB around linear reg	7.3/7.6	6.7/7.4
50	UA	E003	Radium 226 + Radium 228, total	pCi/L	09/17/19 - 11/14/23	12	0	CI around mean	0.565	2.60
50	UA	E003	Selenium, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.0025	0.00110
50	UA	E003	Sulfate, total	mg/L	09/17/19 - 11/14/23	16	0	CI around geomean	86.4	117
50	UA	E003	Thallium, total	mg/L	09/17/19 - 11/14/23	16	100	All ND - Last	0.002	0.001
50	UA	E003	Total Dissolved Solids	mg/L	09/17/19 - 11/14/23	16	0	CI around mean	607	830

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845 QUARTERLY REPORT
HENNEPIN POWER PLANT
WEST ASH POND SYSTEM
HENNEPIN, IL

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

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