Luminant

Illinois Power Generating Company
1500 Eastport Plaza Drive
Collinsville, IL 62234

October 16, 2023

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: Coffeen Power Plant GMF Gypsum Stack Pond; IEPA ID # W1350150004-03

Dear Mr. LeCrone:

In accordance with Title 35 of the Illinois Administrative Code (35 I.A.C.) Section (§) 845.610(b)(3)(D), Illinois Power Generating Company (IPGC) is submitting groundwater monitoring data for the Quarter 2, 2023 sampling event at the Coffeen Power Plant Gypsum Management Facility (GMF) Gypsum Stack Pond, identified by Illinois Environmental Protection Agency (IEPA) ID No. W1350150004-03. 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 GWPS 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) will be evaluated for the detected exceedances of the GWPS and, if successfully completed, the ASD will be submitted to IEPA within 60 days of this transmittal.

Sincerely,

Dianna Tickner

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

Enclosures

Groundwater Monitoring Data and Detected Exceedances, Quarter 2, 2023, GMF Gypsum Stack Pond, Coffeen Power Plant, Coffeen, Illinois

RAMBOLL

ENVIRONMENT
& HEALTH

35 I.A.C. § 845.610(b)(3)(D)
GROUNDWATER MONITORING DATA AND DETECTED EXCEEDANCES
QUARTER 2, 2023
GMF GYPSUM STACK POND, COFFEEN POWER PLANT, COFFEEN, ILLINOIS

October 16, 2023

Samples were collected on June 1 and June 6 through 9, 2023 and analyzed for the parameters listed in Title 35 of the Illinois Administrative Code (35 I.A.C.) Section (§) 845.600(a), calcium, and turbidity. Final laboratory analytical data was received on August 17, 2023.

The monitoring well locations are included in **Figure 1**. **Attachment A** summarizes the groundwater elevation data for the Quarter 2, 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 2, 2023 sampling event.

Statistical procedures used to evaluate groundwater results are provided in Appendix A of 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 2, 2023 groundwater monitoring data were evaluated for statistically significant levels (SSLs) 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 exceedance was detected.

As allowed in 35 I.A.C. § 845.650(e), an alternate source demonstration (ASD) will be evaluated for the detected exceedance of the GWPS and, if successfully completed, the ASD will be submitted to Illinois Environmental Protection Agency (IEPA) within 60 days of this transmittal.

TABLES

FIGURES

ATTACHMENTS

[1] Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Groundwater Monitoring Plan. GMF Gypsum Stack Pond. Coffeen Power Plant. Coffeen, Illinois. October 25, 2021.*

TABLES

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G200	Background	E001	06/07/2023	Antimony, total	0.0011 J	mg/L
G200	Background	E001	06/07/2023	Arsenic, total	0.00850	mg/L
G200	Background	E001	06/07/2023	Barium, total	0.150	mg/L
G200	Background	E001	06/07/2023	Beryllium, total	0.00083 J	mg/L
G200	Background	E001	06/07/2023	Boron, total	0.0110	mg/L
G200	Background	E001	06/07/2023	Cadmium, total	0.00074 U	mg/L
G200	Background	E001	06/07/2023	Calcium, total	110	mg/L
G200	Background	E001	06/07/2023	Chloride, total	65.0	mg/L
G200	Background	E001	06/07/2023	Chromium, total	0.0120	mg/L
G200	Background	E001	06/07/2023	Cobalt, total	0.00730	mg/L
G200	Background	E001	06/07/2023	Dissolved Oxygen	1.30	mg/L
G200	Background	E001	06/07/2023	Fluoride, total	0.216 J	mg/L
G200	Background	E001	06/07/2023	Lead, total	0.0160	mg/L
G200	Background	E001	06/07/2023	Lithium, total	0.013 J	mg/L
G200	Background	E001	06/07/2023	Mercury, total	0.0002 U	mg/L
G200	Background	E001	06/07/2023	Molybdenum, total	0.00079 J	mg/L
G200	Background	E001	06/07/2023	Oxidation Reduction Potential	26.0	mV
G200	Background	E001	06/07/2023	pH (field)	7.1	SU
G200	Background	E001	06/07/2023	Radium 226 + Radium 228, total	4.48 J+	pCi/L
G200	Background	E001	06/07/2023	Selenium, total	0.00290	mg/L
G200	Background	E001	06/07/2023	Specific Conductance @ 25C (field)	913	micromhos/cm
G200	Background	E001	06/07/2023	Sulfate, total	110	mg/L
G200	Background	E001	06/07/2023	Temperature	25.4	degrees C
G200	Background	E001	06/07/2023	Thallium, total	0.00038 U	mg/L
G200	Background	E001	06/07/2023	Total Dissolved Solids	630	mg/L
G200	Background	E001	06/07/2023	Turbidity, field	1,000	NTU
R201	Background	E001	06/07/2023	Antimony, total	0.00043 U	mg/L
R201	Background	E001	06/07/2023	Arsenic, total	0.00390	mg/L
R201	Background	E001	06/07/2023	Barium, total	0.0780	mg/L
R201	Background	E001	06/07/2023	Beryllium, total	0.00059 U	mg/L
R201	Background	E001	06/07/2023	Boron, total	0.01 U	mg/L
R201	Background	E001	06/07/2023	Cadmium, total	0.00074 U	mg/L
R201	Background	E001	06/07/2023	Calcium, total	120	mg/L
R201	Background	E001	06/07/2023	Chloride, total	89.0	mg/L
R201	Background	E001	06/07/2023	Chromium, total	0.0028 U	mg/L
R201	Background	E001	06/07/2023	Cobalt, total	0.00048 U	mg/L
R201	Background	E001	06/07/2023	Dissolved Oxygen	2.40	mg/L
R201	Background	E001	06/07/2023	Fluoride, total	0.19 J	mg/L
R201	Background	E001	06/07/2023	Lead, total	0.00058 J	mg/L
R201	Background	E001	06/07/2023	Lithium, total	0.005 U	mg/L
R201	Background	E001	06/07/2023	Mercury, total	0.0002 U	mg/L
R201	Background	E001	06/07/2023	Molybdenum, total	0.00074 U	mg/L
R201	Background	E001	06/07/2023	Oxidation Reduction Potential	-123	mV
R201	Background	E001	06/07/2023	pH (field)	7.3	SU
R201	Background	E001	06/07/2023	Radium 226 + Radium 228, total	1.50 J+	pCi/L
R201	Background	E001	06/07/2023	Selenium, total	0.00074 U	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
R201	Background	E001	06/07/2023	Specific Conductance @ 25C (field)	1,430	micromhos/cm
R201	Background	E001	06/07/2023	Sulfate, total	220	mg/L
R201	Background	E001	06/07/2023	Temperature	19.0	degrees C
R201	Background	E001	06/07/2023	Thallium, total	0.00038 U	mg/L
R201	Background	E001	06/07/2023	Total Dissolved Solids	930	mg/L
R201	Background	E001	06/07/2023	Turbidity, field	14.6	NTU
G206	Compliance	E001	06/09/2023	Antimony, total	0.00043 U	mg/L
G206	Compliance	E001	06/09/2023	Arsenic, total	0.00260	mg/L
G206	Compliance	E001	06/09/2023	Barium, total	0.0500	mg/L
G206	Compliance	E001	06/09/2023	Beryllium, total	0.00059 U	mg/L
G206	Compliance	E001	06/09/2023	Boron, total	0.0120 J+	mg/L
G206	Compliance	E001	06/09/2023	Cadmium, total	0.00074 U	mg/L
G206	Compliance	E001	06/09/2023	Calcium, total	86.0	mg/L
G206	Compliance	E001	06/09/2023	Chloride, total	22.0	mg/L
G206	Compliance	E001	06/09/2023	Chromium, total	0.0028 U	mg/L
G206	Compliance	E001	06/09/2023	Cobalt, total	0.00048 U	mg/L
G206	Compliance	E001	06/09/2023	Dissolved Oxygen	1.30	mg/L
G206	Compliance	E001	06/09/2023	Fluoride, total	0.430	mg/L
G206	Compliance	E001	06/09/2023	Lead, total	0.00022 U	mg/L
G206	Compliance	E001	06/09/2023	Lithium, total	0.005 U	mg/L
G206	Compliance	E001	06/09/2023	Mercury, total	0.00014 U	mg/L
G206	Compliance	E001	06/09/2023	Molybdenum, total	0.00074 U	mg/L
G206	Compliance	E001	06/09/2023	Oxidation Reduction Potential	-232	mV
G206	Compliance	E001	06/09/2023	pH (field)	7.1	SU
G206	Compliance	E001	06/09/2023	Radium 226 + Radium 228, total	0.227	pCi/L
G206	Compliance	E001	06/09/2023	Selenium, total	0.00074 U	mg/L
G206	Compliance	E001	06/09/2023	Specific Conductance @ 25C (field)	910	micromhos/cm
G206	Compliance	E001	06/09/2023	Sulfate, total	140	mg/L
G206	Compliance	E001	06/09/2023	Temperature	18.3	degrees C
G206	Compliance	E001	06/09/2023	Thallium, total	0.00038 U	mg/L
G206	Compliance	E001	06/09/2023	Total Dissolved Solids	600	mg/L
G206	Compliance	E001	06/09/2023	Turbidity, field	0 U	NTU
G206D	Compliance	E001	06/09/2023	Antimony, total	0.00043 U	mg/L
G206D	Compliance	E001	06/09/2023	Arsenic, total	0.0160	mg/L
G206D	Compliance	E001	06/09/2023	Barium, total	0.170	mg/L
G206D	Compliance	E001	06/09/2023	Beryllium, total	0.00059 U	mg/L
G206D	Compliance	E001	06/09/2023	Boron, total	0.120 J+	mg/L
G206D	Compliance	E001	06/09/2023	Cadmium, total	0.00074 U	mg/L
G206D	Compliance	E001	06/09/2023	Calcium, total	86.0	mg/L
G206D	Compliance	E001	06/09/2023	Chloride, total	25.0	mg/L
G206D	Compliance	E001	06/09/2023	Chromium, total	0.0028 U	mg/L
G206D	Compliance	E001	06/09/2023	Cobalt, total	0.00048 U	mg/L
G206D	Compliance	E001	06/09/2023	Dissolved Oxygen	0.850	mg/L
G206D	Compliance	E001	06/09/2023	Fluoride, total	0.873	mg/L
G206D	Compliance	E001	06/09/2023	Lead, total	0.00034 J	mg/L
G206D	Compliance	E001	06/09/2023	Lithium, total	0.005 U	mg/L

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GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G206D	Compliance	E001	06/09/2023	Mercury, total	0.00014 U	mg/L
G206D	Compliance	E001	06/09/2023	Molybdenum, total	0.0160	mg/L
G206D	Compliance	E001	06/09/2023	Oxidation Reduction Potential	-194	mV
G206D	Compliance	E001	06/09/2023	pH (field)	7.2	SU
G206D	Compliance	E001	06/09/2023	Radium 226 + Radium 228, total	0.701	pCi/L
G206D	Compliance	E001	06/09/2023	Selenium, total	0.00074 U	mg/L
G206D	Compliance	E001	06/09/2023	Specific Conductance @ 25C (field)	1,150	micromhos/cm
G206D	Compliance	E001	06/09/2023	Sulfate, total	160	mg/L
G206D	Compliance	E001	06/09/2023	Temperature	18.1	degrees C
G206D	Compliance	E001	06/09/2023	Thallium, total	0.00038 U	mg/L
G206D	Compliance	E001	06/09/2023	Total Dissolved Solids	680	mg/L
G206D	Compliance	E001	06/09/2023	Turbidity, field	17.6	NTU
G209	Compliance	E001	06/09/2023	Antimony, total	0.00043 U	mg/L
G209	Compliance	E001	06/09/2023	Arsenic, total	0.00290	mg/L
G209	Compliance	E001	06/09/2023	Barium, total	0.0700	mg/L
G209	Compliance	E001	06/09/2023	Beryllium, total	0.00059 U	mg/L
G209	Compliance	E001	06/09/2023	Boron, total	0.0110 J+	mg/L
G209	Compliance	E001	06/09/2023	Cadmium, total	0.00074 U	mg/L
G209	Compliance	E001	06/09/2023	Calcium, total	140	mg/L
G209	Compliance	E001	06/09/2023	Chloride, total	61.0	mg/L
G209	Compliance	E001	06/09/2023	Chromium, total	0.0028 U	mg/L
G209	Compliance	E001	06/09/2023	Cobalt, total	0.001 J	mg/L
G209	Compliance	E001	06/09/2023	Dissolved Oxygen	7.20	mg/L
G209	Compliance	E001	06/09/2023	Fluoride, total	0.396	mg/L
G209	Compliance	E001	06/09/2023	Lead, total	0.00022 U	mg/L
G209	Compliance	E001	06/09/2023	Lithium, total	0.005 U	mg/L
G209	Compliance	E001	06/09/2023	Mercury, total	0.00014 U	mg/L
G209	Compliance	E001	06/09/2023	Molybdenum, total	0.00380	mg/L
G209	Compliance	E001	06/09/2023	Oxidation Reduction Potential	-33.0	mV
G209	Compliance	E001	06/09/2023	pH (field)	7.0	SU
G209	Compliance	E001	06/09/2023	Radium 226 + Radium 228, total	0.292	pCi/L
G209	Compliance	E001	06/09/2023	Selenium, total	0.00074 U	mg/L
G209	Compliance	E001	06/09/2023	Specific Conductance @ 25C (field)	1,290	micromhos/cm
G209	Compliance	E001	06/09/2023	Sulfate, total	230	mg/L
G209	Compliance	E001	06/09/2023	Temperature	16.1	degrees C
G209	Compliance	E001	06/09/2023	Thallium, total	0.00038 U	mg/L
G209	Compliance	E001	06/09/2023	Total Dissolved Solids	860	mg/L
G209	Compliance	E001	06/09/2023	Turbidity, field	2.20	NTU
G212	Compliance	E001	06/07/2023	Antimony, total	0.00043 U	mg/L
G212	Compliance	E001	06/07/2023	Arsenic, total	0.00069 U	mg/L
G212	Compliance	E001	06/07/2023	Barium, total	0.0510	mg/L
G212	Compliance	E001	06/07/2023	Beryllium, total	0.00059 U	mg/L
G212	Compliance	E001	06/07/2023	Boron, total	0.01 U	mg/L
G212	Compliance	E001	06/07/2023	Cadmium, total	0.00074 U	mg/L
G212	Compliance	E001	06/07/2023	Calcium, total	56.0	mg/L
G212	Compliance	E001	06/07/2023	Chloride, total	41.0	mg/L

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845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G212	Compliance	E001	06/07/2023	Chromium, total	0.0028 U	mg/L
G212	Compliance	E001	06/07/2023	Cobalt, total	0.00048 U	mg/L
G212	Compliance	E001	06/07/2023	Dissolved Oxygen	1.60	mg/L
G212	Compliance	E001	06/07/2023	Fluoride, total	0.222 J	mg/L
G212	Compliance	E001	06/07/2023	Lead, total	0.00022 U	mg/L
G212	Compliance	E001	06/07/2023	Lithium, total	0.005 U	mg/L
G212	Compliance	E001	06/07/2023	Mercury, total	0.0002 U	mg/L
G212	Compliance	E001	06/07/2023	Molybdenum, total	0.00074 U	mg/L
G212	Compliance	E001	06/07/2023	Oxidation Reduction Potential	110	mV
G212	Compliance	E001	06/07/2023	pH (field)	7.2	SU
G212	Compliance	E001	06/07/2023	Radium 226 + Radium 228, total	0.194	pCi/L
G212	Compliance	E001	06/07/2023	Selenium, total	0.00082 J	mg/L
G212	Compliance	E001	06/07/2023	Specific Conductance @ 25C (field)	722	micromhos/cm
G212	Compliance	E001	06/07/2023	Sulfate, total	54.0	mg/L
G212	Compliance	E001	06/07/2023	Temperature	16.4	degrees C
G212	Compliance	E001	06/07/2023	Thallium, total	0.00038 U	mg/L
G212	Compliance	E001	06/07/2023	Total Dissolved Solids	480 J	mg/L
G212	Compliance	E001	06/07/2023	Turbidity, field	8.79	NTU
G213	Compliance	E001	06/07/2023	Antimony, total	0.00043 U	mg/L
G213	Compliance	E001	06/07/2023	Arsenic, total	0.00069 U	mg/L
G213	Compliance	E001	06/07/2023	Barium, total	0.0540	mg/L
G213	Compliance	E001	06/07/2023	Beryllium, total	0.00059 U	mg/L
G213	Compliance	E001	06/07/2023	Boron, total	0.01 U	mg/L
G213	Compliance	E001	06/07/2023	Cadmium, total	0.00074 U	mg/L
G213	Compliance	E001	06/07/2023	Calcium, total	65.0	mg/L
G213	Compliance	E001	06/07/2023	Chloride, total	45.0	mg/L
G213	Compliance	E001	06/07/2023	Chromium, total	0.0028 U	mg/L
G213	Compliance	E001	06/07/2023	Cobalt, total	0.00048 U	mg/L
G213	Compliance	E001	06/07/2023	Dissolved Oxygen	1.60	mg/L
G213	Compliance	E001	06/07/2023	Fluoride, total	0.24 J	mg/L
G213	Compliance	E001	06/07/2023	Lead, total	0.00024 J	mg/L
G213	Compliance	E001	06/07/2023	Lithium, total	0.005 U	mg/L
G213	Compliance	E001	06/07/2023	Mercury, total	0.0002 U	mg/L
G213	Compliance	E001	06/07/2023	Molybdenum, total	0.00074 U	mg/L
G213	Compliance	E001	06/07/2023	Oxidation Reduction Potential	-1.50	mV
G213	Compliance	E001	06/07/2023	pH (field)	7.2	SU
G213	Compliance	E001	06/07/2023	Radium 226 + Radium 228, total	0.399 <0	pCi/L
G213	Compliance	E001	06/07/2023	Selenium, total	0.00110	mg/L
G213	Compliance	E001	06/07/2023	Specific Conductance @ 25C (field)	686	micromhos/cm
G213	Compliance	E001	06/07/2023	Sulfate, total	59.0	mg/L
G213	Compliance	E001	06/07/2023	Temperature	17.6	degrees C
G213	Compliance	E001	06/07/2023	Thallium, total	0.00038 U	mg/L
G213	Compliance	E001	06/07/2023	Total Dissolved Solids	500	mg/L
G213	Compliance	E001	06/07/2023	Turbidity, field	66.9	NTU
G215	Compliance	E001	06/01/2023	Antimony, total	0.00043 U	mg/L
G215	Compliance	E001	06/01/2023	Arsenic, total	0.0130	mg/L

TABLE 1.
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845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G215	Compliance	E001	06/01/2023	Barium, total	0.0450	mg/L
G215	Compliance	E001	06/01/2023	Beryllium, total	0.00059 U	mg/L
G215	Compliance	E001	06/01/2023	Boron, total	0.840	mg/L
G215	Compliance	E001	06/01/2023	Cadmium, total	0.00074 U	mg/L
G215	Compliance	E001	06/01/2023	Calcium, total	180	mg/L
G215	Compliance	E001	06/01/2023	Chloride, total	130	mg/L
G215	Compliance	E001	06/01/2023	Chromium, total	0.0028 U	mg/L
G215	Compliance	E001	06/01/2023	Cobalt, total	0.00057 J	mg/L
G215	Compliance	E001	06/01/2023	Dissolved Oxygen	2.60	mg/L
G215	Compliance	E001	06/01/2023	Fluoride, total	0.209 J	mg/L
G215	Compliance	E001	06/01/2023	Lead, total	0.00022 J	mg/L
G215	Compliance	E001	06/01/2023	Lithium, total	0.0082 J	mg/L
G215	Compliance	E001	06/01/2023	Mercury, total	0.00014 U	mg/L
G215	Compliance	E001	06/01/2023	Molybdenum, total	0.00074 U	mg/L
G215	Compliance	E001	06/01/2023	Oxidation Reduction Potential	-16.0	mV
G215	Compliance	E001	06/01/2023	pH (field)	7.0	SU
G215	Compliance	E001	06/01/2023	Radium 226 + Radium 228, total	0.881	pCi/L
G215	Compliance	E001	06/01/2023	Selenium, total	0.00074 U	mg/L
G215	Compliance	E001	06/01/2023	Specific Conductance @ 25C (field)	1,830	micromhos/cm
G215	Compliance	E001	06/01/2023	Sulfate, total	540	mg/L
G215	Compliance	E001	06/01/2023	Temperature	20.9	degrees C
G215	Compliance	E001	06/01/2023	Thallium, total	0.00038 U	mg/L
G215	Compliance	E001	06/01/2023	Total Dissolved Solids	1,200	mg/L
G215	Compliance	E001	06/01/2023	Turbidity, field	218	NTU
G217	Compliance	E001	06/08/2023	Antimony, total	0.00043 U	mg/L
G217	Compliance	E001	06/08/2023	Arsenic, total	0.00130	mg/L
G217	Compliance	E001	06/08/2023	Barium, total	0.110	mg/L
G217	Compliance	E001	06/08/2023	Beryllium, total	0.00059 U	mg/L
G217	Compliance	E001	06/08/2023	Boron, total	0.0160	mg/L
G217	Compliance	E001	06/08/2023	Cadmium, total	0.00074 U	mg/L
G217	Compliance	E001	06/08/2023	Calcium, total	180	mg/L
G217	Compliance	E001	06/08/2023	Chloride, total	130	mg/L
G217	Compliance	E001	06/08/2023	Chromium, total	0.0039 J	mg/L
G217	Compliance	E001	06/08/2023	Cobalt, total	0.0012 J	mg/L
G217	Compliance	E001	06/08/2023	Dissolved Oxygen	2.30	mg/L
G217	Compliance	E001	06/08/2023	Fluoride, total	0.296	mg/L
G217	Compliance	E001	06/08/2023	Lead, total	0.00120	mg/L
G217	Compliance	E001	06/08/2023	Lithium, total	0.005 U	mg/L
G217	Compliance	E001	06/08/2023	Mercury, total	0.00014 U	mg/L
G217	Compliance	E001	06/08/2023	Molybdenum, total	0.00074 U	mg/L
G217	Compliance	E001	06/08/2023	Oxidation Reduction Potential	2.00	mV
G217	Compliance	E001	06/08/2023	pH (field)	6.7	SU
G217	Compliance	E001	06/08/2023	Radium 226 + Radium 228, total	0.574	pCi/L
G217	Compliance	E001	06/08/2023	Selenium, total	0.00074 U	mg/L
G217	Compliance	E001	06/08/2023	Specific Conductance @ 25C (field)	1,490	micromhos/cm
G217	Compliance	E001	06/08/2023	Sulfate, total	370	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
G217	Compliance	E001	06/08/2023	Temperature	19.6	degrees C
G217	Compliance	E001	06/08/2023	Thallium, total	0.00038 U	mg/L
G217	Compliance	E001	06/08/2023	Total Dissolved Solids	1,100	mg/L
G217	Compliance	E001	06/08/2023	Turbidity, field	61.5	NTU
G218	Compliance	E001	06/01/2023	Antimony, total	0.00043 U	mg/L
G218	Compliance	E001	06/01/2023	Arsenic, total	0.00330	mg/L
G218	Compliance	E001	06/01/2023	Barium, total	0.0850	mg/L
G218	Compliance	E001	06/01/2023	Beryllium, total	0.00059 U	mg/L
G218	Compliance	E001	06/01/2023	Boron, total	0.0140	mg/L
G218	Compliance	E001	06/01/2023	Cadmium, total	0.00074 U	mg/L
G218	Compliance	E001	06/01/2023	Calcium, total	170	mg/L
G218	Compliance	E001	06/01/2023	Chloride, total	160	mg/L
G218	Compliance	E001	06/01/2023	Chromium, total	0.0028 U	mg/L
G218	Compliance	E001	06/01/2023	Cobalt, total	0.00086 J	mg/L
G218	Compliance	E001	06/01/2023	Dissolved Oxygen	1.80	mg/L
G218	Compliance	E001	06/01/2023	Fluoride, total	0.255	mg/L
G218	Compliance	E001	06/01/2023	Lead, total	0.00052 J	mg/L
G218	Compliance	E001	06/01/2023	Lithium, total	0.0051 J	mg/L
G218	Compliance	E001	06/01/2023	Mercury, total	0.00014 U	mg/L
G218	Compliance	E001	06/01/2023	Molybdenum, total	0.00074 U	mg/L
G218	Compliance	E001	06/01/2023	Oxidation Reduction Potential	-27.0	mV
G218	Compliance	E001	06/01/2023	pH (field)	7.2	SU
G218	Compliance	E001	06/01/2023	Radium 226 + Radium 228, total	1.05 J+	pCi/L
G218	Compliance	E001	06/01/2023	Selenium, total	0.00074 U	mg/L
G218	Compliance	E001	06/01/2023	Specific Conductance @ 25C (field)	1,480	micromhos/cm
G218	Compliance	E001	06/01/2023	Sulfate, total	370	mg/L
G218	Compliance	E001	06/01/2023	Temperature	19.8	degrees C
G218	Compliance	E001	06/01/2023	Thallium, total	0.00038 U	mg/L
G218	Compliance	E001	06/01/2023	Total Dissolved Solids	1,000	mg/L
G218	Compliance	E001	06/01/2023	Turbidity, field	99.1	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 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G206	UA	E001	Antimony, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G206	UA	E001	Arsenic, total	mg/L	11/18/15 - 06/09/23	19	71	CI around median	0.001	0.0110	Background	No Exceedance
G206	UA	E001	Barium, total	mg/L	11/18/15 - 06/09/23	19	3	CI around mean	0.0466	2.0	Standard	No Exceedance
G206	UA	E001	Beryllium, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G206	UA	E001	Boron, total	mg/L	11/18/15 - 06/09/23	26	78	CI around median	0.01	2	Standard	No Exceedance
G206	UA	E001	Cadmium, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G206	UA	E001	Chloride, total	mg/L	11/18/15 - 06/09/23	26	0	CB around linear reg	18.4	200	Standard	No Exceedance
G206	UA	E001	Chromium, total	mg/L	11/18/15 - 06/09/23	19	84	CI around median	0.004	0.1	Standard	No Exceedance
G206	UA	E001	Cobalt, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.002	0.006	Standard	No Exceedance
G206	UA	E001	Fluoride, total	mg/L	11/18/15 - 06/09/23	27	5	CI around mean	0.378	4.0	Standard	No Exceedance
G206	UA	E001	Lead, total	mg/L	11/18/15 - 06/09/23	19	93	CI around median	0.001	0.0075	Standard	No Exceedance
G206	UA	E001	Lithium, total	mg/L	11/18/15 - 06/09/23	12	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G206	UA	E001	Mercury, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G206	UA	E001	Molybdenum, total	mg/L	11/18/15 - 06/09/23	19	62	CB around T-S line	-0.000347	0.1	Standard	No Exceedance
G206	UA	E001	pH (field)	SU	11/18/15 - 06/09/23	28	0	CI around median	7.0/7.2	6.5/9.0	Standard/Standard	No Exceedance
G206	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/18/15 - 06/09/23	12	0	CI around mean	0.409	5	Standard	No Exceedance
G206	UA	E001	Selenium, total	mg/L	11/18/15 - 06/09/23	19	81	CI around median	0.001	0.05	Standard	No Exceedance
G206	UA	E001	Sulfate, total	mg/L	11/18/15 - 06/09/23	26	0	CI around mean	121	400	Standard	No Exceedance
G206	UA	E001	Thallium, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G206	UA	E001	Total Dissolved Solids	mg/L	11/18/15 - 06/09/23	26	0	CI around geomean	467	1,200	Standard	No Exceedance
G206D	DA	E001	Antimony, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G206D	DA	E001	Arsenic, total	mg/L	03/30/21 - 06/09/23	7	0	CI around geomean	0.00224	0.0110	Background	No Exceedance
G206D	DA	E001	Barium, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.0836	2.0	Standard	No Exceedance
G206D	DA	E001	Beryllium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G206D	DA	E001	Boron, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.11	2	Standard	No Exceedance
G206D	DA	E001	Cadmium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G206D	DA	E001	Chloride, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	27.9	200	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G206D	DA	E001	Chromium, total	mg/L	03/30/21 - 06/09/23	7	86	CI around median	0.004	0.1	Standard	No Exceedance
G206D	DA	E001	Cobalt, total	mg/L	03/30/21 - 06/09/23	7	86	CI around median	0.002	0.006	Standard	No Exceedance
G206D	DA	E001	Fluoride, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.581	4.0	Standard	No Exceedance
G206D	DA	E001	Lead, total	mg/L	03/30/21 - 06/09/23	7	71	CI around median	0.001	0.0075	Standard	No Exceedance
G206D	DA	E001	Lithium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G206D	DA	E001	Mercury, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G206D	DA	E001	Molybdenum, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.0187	0.1	Standard	No Exceedance
G206D	DA	E001	pH (field)	SU	03/30/21 - 06/09/23	7	0	CI around mean	7.0/7.5	6.5/9.0	Standard/Standard	No Exceedance
G206D	DA	E001	Radium 226 + Radium 228, total	pCi/L	03/30/21 - 06/09/23	8	0	CI around mean	0.0872	5	Standard	No Exceedance
G206D	DA	E001	Selenium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.05	Standard	No Exceedance
G206D	DA	E001	Sulfate, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	152	400	Standard	No Exceedance
G206D	DA	E001	Thallium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G206D	DA	E001	Total Dissolved Solids	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	738	1,200	Standard	No Exceedance
G209	UA	E001	Antimony, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.003	0.006	Standard	No Exceedance
G209	UA	E001	Arsenic, total	mg/L	11/18/15 - 06/09/23	19	45	CI around geomean	0.00114	0.0110	Background	No Exceedance
G209	UA	E001	Barium, total	mg/L	11/18/15 - 06/09/23	19	0	CI around mean	0.056	2.0	Standard	No Exceedance
G209	UA	E001	Beryllium, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.001	0.004	Standard	No Exceedance
G209	UA	E001	Boron, total	mg/L	11/18/15 - 06/09/23	26	57	CI around median	0.01	2	Standard	No Exceedance
G209	UA	E001	Cadmium, total	mg/L	11/18/15 - 06/09/23	19	98	Most recent sample	0.001	0.005	Standard	No Exceedance
G209	UA	E001	Chloride, total	mg/L	11/18/15 - 06/09/23	26	0	CI around median	61	200	Standard	No Exceedance
G209	UA	E001	Chromium, total	mg/L	11/18/15 - 06/09/23	19	68	Most recent sample	0.004	0.1	Standard	No Exceedance
G209	UA	E001	Cobalt, total	mg/L	11/18/15 - 06/09/23	19	87	Most recent sample	0.002	0.006	Standard	No Exceedance
G209	UA	E001	Fluoride, total	mg/L	11/18/15 - 06/09/23	27	3	CI around mean	0.398	4.0	Standard	No Exceedance
G209	UA	E001	Lead, total	mg/L	11/18/15 - 06/09/23	19	86	CI around median	0.001	0.0075	Standard	No Exceedance
G209	UA	E001	Lithium, total	mg/L	11/18/15 - 06/09/23	12	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G209	UA	E001	Mercury, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.0002	0.002	Standard	No Exceedance
G209	UA	E001	Molybdenum, total	mg/L	11/18/15 - 06/09/23	19	10	CI around mean	0.00148	0.1	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G209	UA	E001	pH (field)	SU	11/18/15 - 06/09/23	30	0	CI around mean	7.0/7.2	6.5/9.0	Standard/Standard	No Exceedance
G209	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/18/15 - 06/09/23	12	0	CI around mean	0.48	5	Standard	No Exceedance
G209	UA	E001	Selenium, total	mg/L	11/18/15 - 06/09/23	19	58	CI around median	0.001	0.05	Standard	No Exceedance
G209	UA	E001	Sulfate, total	mg/L	11/18/15 - 06/09/23	26	0	CB around T-S line	212	400	Standard	No Exceedance
G209	UA	E001	Thallium, total	mg/L	11/18/15 - 06/09/23	19	94	Most recent sample	0.001	0.002	Standard	No Exceedance
G209	UA	E001	Total Dissolved Solids	mg/L	11/18/15 - 06/09/23	26	0	CB around linear reg	802	1,200	Standard	No Exceedance
G212	UA	E001	Antimony, total	mg/L	11/18/15 - 06/07/23	19	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G212	UA	E001	Arsenic, total	mg/L	11/18/15 - 06/07/23	19	83	CI around median	0.001	0.0110	Background	No Exceedance
G212	UA	E001	Barium, total	mg/L	11/18/15 - 06/07/23	19	0	CI around mean	0.0479	2.0	Standard	No Exceedance
G212	UA	E001	Beryllium, total	mg/L	11/18/15 - 06/07/23	19	97	CI around median	0.001	0.004	Standard	No Exceedance
G212	UA	E001	Boron, total	mg/L	11/18/15 - 06/07/23	26	82	CI around median	0.01	2	Standard	No Exceedance
G212	UA	E001	Cadmium, total	mg/L	11/18/15 - 06/07/23	19	98	CI around median	0.001	0.005	Standard	No Exceedance
G212	UA	E001	Chloride, total	mg/L	11/18/15 - 06/07/23	26	0	CB around linear reg	42.2	200	Standard	No Exceedance
G212	UA	E001	Chromium, total	mg/L	11/18/15 - 06/07/23	19	84	Most recent sample	0.004	0.1	Standard	No Exceedance
G212	UA	E001	Cobalt, total	mg/L	11/18/15 - 06/07/23	19	97	Most recent sample	0.002	0.006	Standard	No Exceedance
G212	UA	E001	Fluoride, total	mg/L	11/18/15 - 06/07/23	26	13	CB around linear reg	0.156	4.0	Standard	No Exceedance
G212	UA	E001	Lead, total	mg/L	11/18/15 - 06/07/23	19	83	CI around median	0.001	0.0075	Standard	No Exceedance
G212	UA	E001	Lithium, total	mg/L	11/18/15 - 06/07/23	12	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G212	UA	E001	Mercury, total	mg/L	11/18/15 - 06/07/23	19	97	CI around median	0.0002	0.002	Standard	No Exceedance
G212	UA	E001	Molybdenum, total	mg/L	11/18/15 - 06/07/23	19	67	CI around median	0.001	0.1	Standard	No Exceedance
G212	UA	E001	pH (field)	SU	11/18/15 - 06/07/23	27	0	CI around mean	7.1/7.3	6.5/9.0	Standard/Standard	No Exceedance
G212	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/18/15 - 06/07/23	12	0	CI around mean	0.316	5	Standard	No Exceedance
G212	UA	E001	Selenium, total	mg/L	11/18/15 - 06/07/23	19	10	CB around linear reg	0.000213	0.05	Standard	No Exceedance
G212	UA	E001	Sulfate, total	mg/L	11/18/15 - 06/07/23	26	0	CI around mean	52.9	400	Standard	No Exceedance
G212	UA	E001	Thallium, total	mg/L	11/18/15 - 06/07/23	19	97	CI around median	0.001	0.002	Standard	No Exceedance
G212	UA	E001	Total Dissolved Solids	mg/L	11/18/15 - 06/07/23	26	0	CI around mean	378	1,200	Standard	No Exceedance
G213	UA	E001	Antimony, total	mg/L	10/13/20 - 06/07/23	11	100	All ND - Last	0.003	0.006	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G213	UA	E001	Arsenic, total	mg/L	10/13/20 - 06/07/23	11	68	CI around median	0.001	0.0110	Background	No Exceedance
G213	UA	E001	Barium, total	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	0.0444	2.0	Standard	No Exceedance
G213	UA	E001	Beryllium, total	mg/L	10/13/20 - 06/07/23	11	91	Most recent sample	0.001	0.004	Standard	No Exceedance
G213	UA	E001	Boron, total	mg/L	10/13/20 - 06/07/23	11	88	CI around median	0.01	2	Standard	No Exceedance
G213	UA	E001	Cadmium, total	mg/L	10/13/20 - 06/07/23	11	97	Most recent sample	0.001	0.005	Standard	No Exceedance
G213	UA	E001	Chloride, total	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	41.1	200	Standard	No Exceedance
G213	UA	E001	Chromium, total	mg/L	10/13/20 - 06/07/23	11	65	CI around median	0.004	0.1	Standard	No Exceedance
G213	UA	E001	Cobalt, total	mg/L	10/13/20 - 06/07/23	11	83	Most recent sample	0.002	0.006	Standard	No Exceedance
G213	UA	E001	Fluoride, total	mg/L	10/13/20 - 06/07/23	11	9	CI around mean	0.231	4.0	Standard	No Exceedance
G213	UA	E001	Lead, total	mg/L	10/13/20 - 06/07/23	11	71	CI around median	0.001	0.0075	Standard	No Exceedance
G213	UA	E001	Lithium, total	mg/L	02/15/23 - 06/07/23	2	100	Most recent sample	0.02	0.04	Standard	No Exceedance
G213	UA	E001	Mercury, total	mg/L	10/13/20 - 06/07/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G213	UA	E001	Molybdenum, total	mg/L	10/13/20 - 06/07/23	11	85	Most recent sample	0.001	0.1	Standard	No Exceedance
G213	UA	E001	pH (field)	SU	10/13/20 - 06/07/23	11	0	CI around mean	6.9/7.3	6.5/9.0	Standard/Standard	No Exceedance
G213	UA	E001	Radium 226 + Radium 228, total	pCi/L	02/15/23 - 06/07/23	2	0	Most recent sample	0.399	5	Standard	No Exceedance
G213	UA	E001	Selenium, total	mg/L	10/13/20 - 06/07/23	11	17	CI around median	0.001	0.05	Standard	No Exceedance
G213	UA	E001	Sulfate, total	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	54.8	400	Standard	No Exceedance
G213	UA	E001	Thallium, total	mg/L	10/13/20 - 06/07/23	11	96	Most recent sample	0.001	0.002	Standard	No Exceedance
G213	UA	E001	Total Dissolved Solids	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	360	1,200	Standard	No Exceedance
G215	UA	E001	Antimony, total	mg/L	11/24/15 - 06/01/23	19	97	CI around median	0.003	0.006	Standard	No Exceedance
G215	UA	E001	Arsenic, total	mg/L	11/24/15 - 06/01/23	19	21	CI around geomean	0.00474	0.0110	Background	No Exceedance
G215	UA	E001	Barium, total	mg/L	11/24/15 - 06/01/23	19	0	CB around linear reg	0.0068	2.0	Standard	No Exceedance
G215	UA	E001	Beryllium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G215	UA	E001	Boron, total	mg/L	11/24/15 - 06/01/23	27	26	CB around linear reg	0.527	2	Standard	No Exceedance
G215	UA	E001	Cadmium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G215	UA	E001	Chloride, total	mg/L	11/24/15 - 06/01/23	27	0	CB around T-S line	69	200	Standard	No Exceedance
G215	UA	E001	Chromium, total	mg/L	11/24/15 - 06/01/23	19	90	Most recent sample	0.004	0.1	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G215	UA	E001	Cobalt, total	mg/L	11/24/15 - 06/01/23	19	94	CI around median	0.002	0.006	Standard	No Exceedance
G215	UA	E001	Fluoride, total	mg/L	11/24/15 - 06/01/23	27	15	CB around T-S line	0.216	4.0	Standard	No Exceedance
G215	UA	E001	Lead, total	mg/L	11/24/15 - 06/01/23	19	83	CI around median	0.001	0.0075	Standard	No Exceedance
G215	UA	E001	Lithium, total	mg/L	11/24/15 - 06/01/23	12	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G215	UA	E001	Mercury, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G215	UA	E001	Molybdenum, total	mg/L	11/24/15 - 06/01/23	19	95	CI around median	0.001	0.1	Standard	No Exceedance
G215	UA	E001	pH (field)	SU	11/24/15 - 06/01/23	28	0	CI around mean	6.9/7.1	6.5/9.0	Standard/Standard	No Exceedance
G215	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/24/15 - 06/01/23	12	0	CI around mean	0.415	5	Standard	No Exceedance
G215	UA	E001	Selenium, total	mg/L	11/24/15 - 06/01/23	19	90	CI around median	0.001	0.05	Standard	No Exceedance
G215	UA	E001	Sulfate, total	mg/L	11/24/15 - 06/01/23	27	0	CB around linear reg	468	400	Standard	Exceedance
G215	UA	E001	Thallium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G215	UA	E001	Total Dissolved Solids	mg/L	11/24/15 - 06/01/23	27	0	CB around linear reg	1,150	1,200	Standard	No Exceedance
G217	UA	E001	Antimony, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G217	UA	E001	Arsenic, total	mg/L	10/14/20 - 06/08/23	11	82	CI around median	0.001	0.0110	Background	No Exceedance
G217	UA	E001	Barium, total	mg/L	10/14/20 - 06/08/23	11	0	CI around mean	0.0926	2.0	Standard	No Exceedance
G217	UA	E001	Beryllium, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.001	0.004	Standard	No Exceedance
G217	UA	E001	Boron, total	mg/L	10/14/20 - 06/08/23	11	74	CI around median	0.01	2	Standard	No Exceedance
G217	UA	E001	Cadmium, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.001	0.005	Standard	No Exceedance
G217	UA	E001	Chloride, total	mg/L	10/14/20 - 06/08/23	11	0	CB around linear reg	95.2	200	Standard	No Exceedance
G217	UA	E001	Chromium, total	mg/L	10/14/20 - 06/08/23	11	68	Most recent sample	0.004	0.1	Standard	No Exceedance
G217	UA	E001	Cobalt, total	mg/L	10/14/20 - 06/08/23	11	86	Most recent sample	0.002	0.006	Standard	No Exceedance
G217	UA	E001	Fluoride, total	mg/L	10/14/20 - 06/08/23	11	14	CI around geomean	0.225	4.0	Standard	No Exceedance
G217	UA	E001	Lead, total	mg/L	10/14/20 - 06/08/23	11	88	CI around median	0.001	0.0075	Standard	No Exceedance
G217	UA	E001	Lithium, total	mg/L	02/15/23 - 06/08/23	2	100	Most recent sample	0.02	0.04	Standard	No Exceedance
G217	UA	E001	Mercury, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G217	UA	E001	Molybdenum, total	mg/L	10/14/20 - 06/08/23	11	85	Most recent sample	0.001	0.1	Standard	No Exceedance
G217	UA	E001	pH (field)	SU	10/14/20 - 06/08/23	11	0	CI around mean	6.8/7.0	6.5/9.0	Standard/Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
G217	UA	E001	Radium 226 + Radium 228, total	pCi/L	02/15/23 - 06/08/23	2	0	Most recent sample	0.574	5	Standard	No Exceedance
G217	UA	E001	Selenium, total	mg/L	10/14/20 - 06/08/23	11	73	Most recent sample	0.001	0.05	Standard	No Exceedance
G217	UA	E001	Sulfate, total	mg/L	10/14/20 - 06/08/23	11	0	CB around linear reg	323	400	Standard	No Exceedance
G217	UA	E001	Thallium, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G217	UA	E001	Total Dissolved Solids	mg/L	10/14/20 - 06/08/23	11	0	CB around linear reg	943	1,200	Standard	No Exceedance
G218	UA	E001	Antimony, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.003	0.006	Standard	No Exceedance
G218	UA	E001	Arsenic, total	mg/L	11/24/15 - 06/01/23	19	24	CI around geomean	0.00126	0.0110	Background	No Exceedance
G218	UA	E001	Barium, total	mg/L	11/24/15 - 06/01/23	19	0	CB around linear reg	0.093	2.0	Standard	No Exceedance
G218	UA	E001	Beryllium, total	mg/L	11/24/15 - 06/01/23	19	97	CI around median	0.001	0.004	Standard	No Exceedance
G218	UA	E001	Boron, total	mg/L	11/24/15 - 06/01/23	26	78	CI around median	0.01	2	Standard	No Exceedance
G218	UA	E001	Cadmium, total	mg/L	11/24/15 - 06/01/23	19	98	CI around median	0.001	0.005	Standard	No Exceedance
G218	UA	E001	Chloride, total	mg/L	11/24/15 - 06/01/23	26	0	CI around median	83	200	Standard	No Exceedance
G218	UA	E001	Chromium, total	mg/L	11/24/15 - 06/01/23	19	81	CI around median	0.004	0.1	Standard	No Exceedance
G218	UA	E001	Cobalt, total	mg/L	11/24/15 - 06/01/23	19	90	CI around median	0.002	0.006	Standard	No Exceedance
G218	UA	E001	Fluoride, total	mg/L	11/24/15 - 06/01/23	27	13	CI around mean	0.283	4.0	Standard	No Exceedance
G218	UA	E001	Lead, total	mg/L	11/24/15 - 06/01/23	19	90	CI around median	0.001	0.0075	Standard	No Exceedance
G218	UA	E001	Lithium, total	mg/L	11/24/15 - 06/01/23	12	100	All ND - Last	0.02	0.04	Standard	No Exceedance
G218	UA	E001	Mercury, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
G218	UA	E001	Molybdenum, total	mg/L	11/24/15 - 06/01/23	19	86	CI around median	0.001	0.1	Standard	No Exceedance
G218	UA	E001	pH (field)	SU	11/24/15 - 06/01/23	28	0	CI around mean	6.9/7.1	6.5/9.0	Standard/Standard	No Exceedance
G218	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/24/15 - 06/01/23	12	0	CI around mean	0.628	5	Standard	No Exceedance
G218	UA	E001	Selenium, total	mg/L	11/24/15 - 06/01/23	19	84	CI around median	0.001	0.05	Standard	No Exceedance
G218	UA	E001	Sulfate, total	mg/L	11/24/15 - 06/01/23	26	0	CB around linear reg	281	400	Standard	No Exceedance
G218	UA	E001	Thallium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.002	Standard	No Exceedance
G218	UA	E001	Total Dissolved Solids	mg/L	11/24/15 - 06/01/23	27	0	CB around T-S line	756	1,200	Standard	No Exceedance

TABLE 2.
COMPARISON OF STATISTICAL RESULTS TO GWPS - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Notes:
Compliance Result:

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

Exceedance: The statistical result exceeded the GWPS.

HSU = hydrostratigraphic unit:

DA = Deep Aquifer

UA = Uppermost Aquifer

mg/L = milligrams per liter
ND = non-detect
pCi/L = picocuries per liter
SU = standard units
Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result
Statistical Calculation = method used to calculate the statistical result:

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

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

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

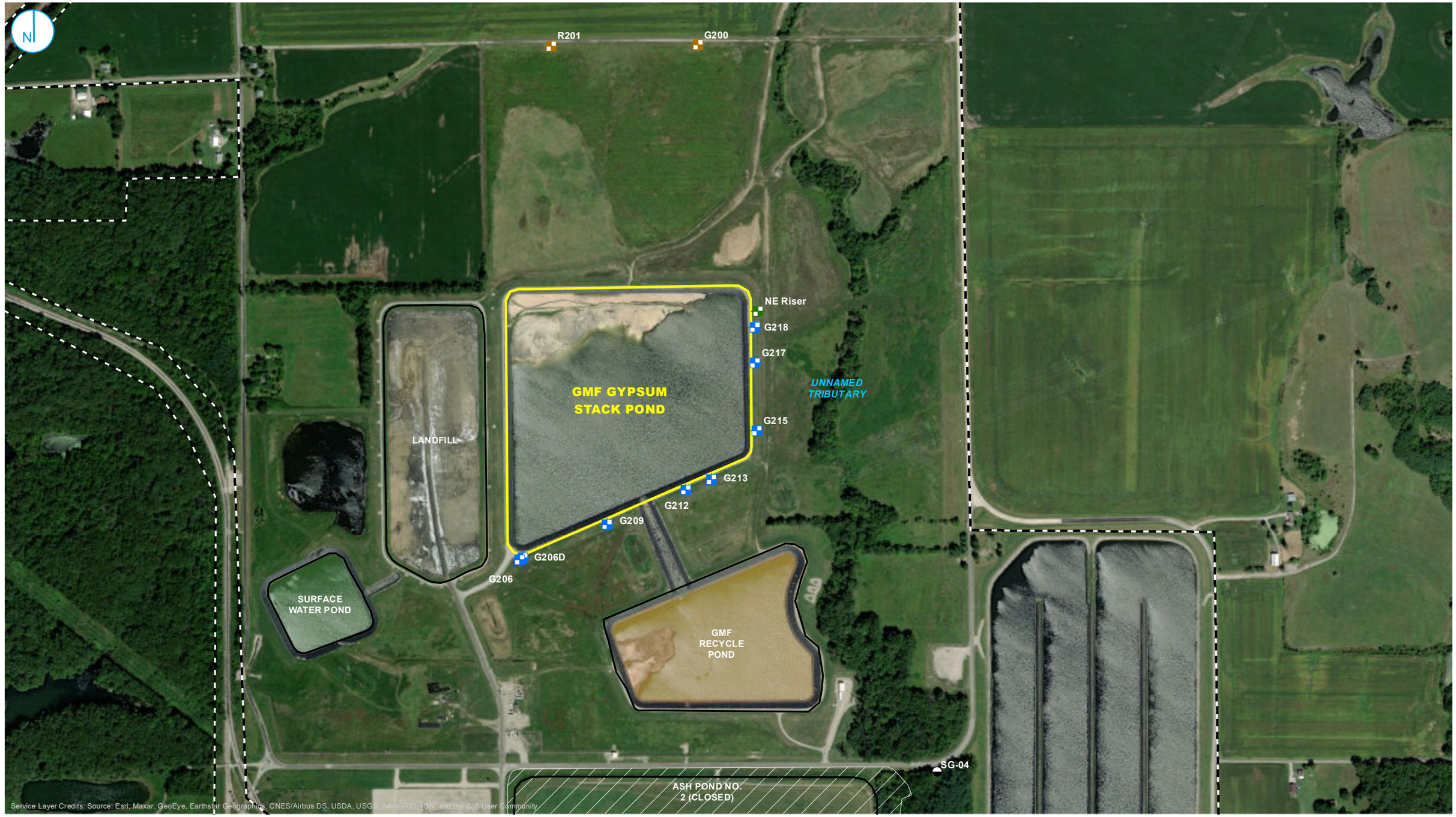
Most recent sample = Result for the most recently collected sample used due to insufficient data

Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range
For pH, the values presented are the lower / upper limits
GWPS = Groundwater Protection Standard
GWPS Source:

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

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

FIGURES



BACKGROUND WELL
COMPLIANCE WELL
SOURCE SAMPLE LOCATION
STAFF GAGE

REGULATED UNIT (SUBJECT UNIT)
SITE FEATURE
LIMITS OF FINAL COVER
PROPERTY BOUNDARY

0 250 500 Feet

35 I.A.C. § 845 GROUNDWATER MONITORING WELL NETWORK

GMF GYPSUM STACK POND

COFFEEN POWER PLANT
COFFEEN, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\2285\MXD\845_Operating_PermitCoffeen\GMF_GSP\GMP\Figure 2-1_Proposed Monitoring Well Network.mxd
PROJECT: 169000XXXX | DATED: 10/12/2021 | DESIGNER: HOTCALD

ATTACHMENTS

ATTACHMENT A
GROUNDWATER ELEVATION DATA
QUARTER 2, 2023

ATTACHMENT A.
GROUNDWATER ELEVATION DATA - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	Well Type	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
G200	Background	05/30/2023	5.89	620.04
G206	Compliance	05/30/2023	11.17	621.64
G206D	Compliance	05/30/2023	30.22	603.91
G209	Compliance	05/30/2023	11.07	621.83
G212	Compliance	05/30/2023	11.64	621.24
G213	Compliance	05/30/2023	11.96	620.84
G215	Compliance	05/30/2023	14.76	618.29
G217	Compliance	06/08/2023	[16.35]	[616.75]
G218	Compliance	05/30/2023	13.72	619.38
R201	Background	05/30/2023	5.31	621.02
SG-04	Water Level	05/30/2023	6.41	593.11

Notes:
Only wells with groundwater elevations measured are included.
BMP = below measuring point
Bracketing [ ] indicates that the measurement was obtained outside of the 24-hour period from initiation of depth to groundwater measurements.
NAVD88 = North American Vertical Datum of 1988

ATTACHMENT B
LABORATORY REPORTS AND FIELD DATA SHEETS
QUARTER 2, 2023

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

July 25, 2023

Brian Voelker
Vistra - Coffeen
1500 Eastport Plaza Drive
Collinsville, IL 62234

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Gail J Schindler

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GF00140

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order GF00245

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order GF00908

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order GF01285

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
YES	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Work Order GF01654

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
YES	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

Case Narrative

MW03D, MW11D, MW11S, MW12D, MW16D, MW16S - no depth to water measurements available, overlooked by field samplers.

NE Riser - no access to measure depth to water

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GF00140-23
Name: G218
Matrix: Ground Water - Grab

Sampled: 06/01/23 11:12
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	160	mg/L		06/02/23 22:00	100	100	06/02/23 22:00	LAM	EPA 300.0 REV 2.1
Fluoride	0.255	mg/L		06/02/23 21:23	1	0.250	06/02/23 21:23	LAM	EPA 300.0 REV 2.1
Sulfate	370	mg/L		06/02/23 22:00	100	100	06/02/23 22:00	LAM	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	14.3	Feet		06/01/23 11:12	1		06/01/23 11:12	FIELD	Field*
Dissolved oxygen, Field	1.8	mg/L		06/01/23 11:12	1		06/01/23 11:12	FIELD	Field*
Oxidation Reduction Potential	-27.0	mV		06/01/23 11:12	1	-500	06/01/23 11:12	FIELD	Field*
pH, Field Measured	7.16	pH Units		06/01/23 11:12	1		06/01/23 11:12	FIELD	Field*
Specific Conductance, Field Measured	1480	umhos/cm		06/01/23 11:12	1		06/01/23 11:12	FIELD	Field*
Temperature, Field Measured	19.8	°C		06/01/23 11:12	1		06/01/23 11:12	FIELD	Field*
Turbidity, Field Measured	99.1	NTU		06/01/23 11:12	1	0.00	06/01/23 11:12	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	300	mg/L		06/12/23 10:31	1	10	06/12/23 10:31	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/12/23 10:31	1	10	06/12/23 10:31	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1000	mg/L		06/02/23 15:56	1	26	06/02/23 15:56	HRF/MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/12/23 09:37	5	3.0	06/13/23 12:38	JMW	EPA 6020A
Arsenic	3.3	ug/L		06/12/23 09:37	5	1.0	06/13/23 12:38	JMW	EPA 6020A
Barium	85	ug/L		06/12/23 09:37	5	1.0	06/13/23 12:38	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 16:49	JMW	EPA 6020A
Boron	14	ug/L		06/12/23 09:37	5	10	06/13/23 16:49	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 12:38	JMW	EPA 6020A
Calcium	170	mg/L		06/12/23 09:37	5	0.20	06/13/23 16:49	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/12/23 09:37	5	4.0	06/13/23 16:49	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/12/23 09:37	5	2.0	06/13/23 12:38	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 12:38	JMW	EPA 6020A
Magnesium	65	mg/L		06/12/23 09:37	5	0.10	06/13/23 16:49	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/12/23 09:37	5	0.20	06/13/23 12:38	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 12:38	JMW	EPA 6020A
Potassium	0.69	mg/L		06/12/23 09:37	5	0.10	06/13/23 16:49	JMW	EPA 6020A

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GF00140-23
Name: G218
Matrix: Ground Water - Grab

Sampled: 06/01/23 11:12
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 12:38	JMW	EPA 6020A
Sodium	73	mg/L		06/12/23 09:37	5	0.10	06/13/23 16:49	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 12:38	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/12/23 09:37	1	0.020	06/13/23 08:35	TJJ	EPA 6010B

Sample: GF00140-26
Name: G214
Matrix: Ground Water - Grab

Sampled: 06/01/23 13:00
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	15.12	Feet		06/01/23 13:00	1		06/01/23 13:00	FIELD	Field*

Sample: GF00140-36
Name: SG-04
Matrix: Water

Sampled: 05/30/23 16:12
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	6.41	Feet		05/30/23 16:12	1		05/30/23 16:12	FIELD	Field*

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GF00245-05
Name: G215
Matrix: Ground Water - Grab

Sampled: 06/01/23 15:32
Received: 06/02/23 07:00
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	130	mg/L		06/02/23 18:05	25	25	06/02/23 18:05	LAM	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/02/23 17:28	1	0.250	06/02/23 17:28	LAM	EPA 300.0 REV 2.1
Sulfate	540	mg/L		06/05/23 22:38	100	100	06/05/23 22:38	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	15.05	Feet		06/01/23 15:32	1		06/01/23 15:32	FIELD	Field*
Dissolved oxygen, Field	2.6	mg/L		06/01/23 15:32	1		06/01/23 15:32	FIELD	Field*
Oxidation Reduction Potential	-16.0	mV		06/01/23 15:32	1	-500	06/01/23 15:32	FIELD	Field*
pH, Field Measured	7.02	pH Units		06/01/23 15:32	1		06/01/23 15:32	FIELD	Field*
Specific Conductance, Field Measured	1830	umhos/cm		06/01/23 15:32	1		06/01/23 15:32	FIELD	Field*
Temperature, Field Measured	20.9	°C		06/01/23 15:32	1		06/01/23 15:32	FIELD	Field*
Turbidity, Field Measured	218	NTU		06/01/23 15:32	1	0.00	06/01/23 15:32	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	340	mg/L		06/02/23 12:13	1	10	06/02/23 12:13	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/02/23 12:13	1	10	06/02/23 12:13	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1200	mg/L		06/02/23 15:56	1	26	06/02/23 15:56	HRF/MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/12/23 09:37	5	3.0	06/13/23 13:02	JMW	EPA 6020A
Arsenic	13	ug/L		06/12/23 09:37	5	1.0	06/13/23 13:02	JMW	EPA 6020A
Barium	45	ug/L		06/12/23 09:37	5	1.0	06/13/23 13:02	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 17:12	JMW	EPA 6020A
Boron	840	ug/L		06/12/23 09:37	5	10	06/13/23 17:12	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 13:02	JMW	EPA 6020A
Calcium	180	mg/L		06/12/23 09:37	5	0.20	06/13/23 17:12	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/12/23 09:37	5	4.0	06/13/23 17:12	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/12/23 09:37	5	2.0	06/13/23 13:02	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 13:02	JMW	EPA 6020A
Magnesium	88	mg/L		06/12/23 09:37	5	0.10	06/13/23 17:12	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/12/23 09:37	5	0.20	06/13/23 13:02	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 13:02	JMW	EPA 6020A
Potassium	4.2	mg/L		06/12/23 09:37	5	0.10	06/13/23 17:12	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF00245-05
Name: G215
Matrix: Ground Water - Grab

Sampled: 06/01/23 15:32
Received: 06/02/23 07:00
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 13:02	JMW	EPA 6020A
Sodium	96	mg/L		06/12/23 09:37	5	0.10	06/13/23 17:12	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/12/23 09:37	5	1.0	06/13/23 13:02	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/12/23 09:37	1	0.020	06/13/23 08:51	TJJ	EPA 6010B

Sample: GF00908-01
Name: G210
Matrix: Ground Water - Grab

Sampled: 06/05/23 17:03
Received: 06/06/23 17:25
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	11.75	Feet		06/05/23 17:03	1		06/05/23 17:03	FIELD	Field*

Sample: GF00908-02
Name: G216
Matrix: Ground Water - Grab

Sampled: 06/05/23 15:50
Received: 06/06/23 17:25
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	14.6	Feet		06/05/23 15:50	1		06/05/23 15:50	FIELD	Field*

Sample: GF00908-03
Name: G211
Matrix: Ground Water - Grab

Sampled: 06/05/23 13:45
Received: 06/06/23 17:25
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	11.37	Feet		06/05/23 13:45	1		06/05/23 13:45	FIELD	Field*

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ANALYTICAL RESULTS

Sample: GF00908-10 **Sampled:** 06/06/23 13:01
Name: G103 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	10.88	Feet		06/06/23 13:01	1		06/06/23 13:01	FIELD	Field*

Sample: GF01285-01 **Sampled:** 06/06/23 14:11
Name: G102 **Received:** 06/07/23 16:16
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	7.39	Feet		06/06/23 14:11	1		06/06/23 14:11	FIELD	Field*

Sample: GF01285-02 **Sampled:** 06/06/23 15:19
Name: R104 **Received:** 06/07/23 16:16
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	8.44	Feet		06/06/23 15:19	1		06/06/23 15:19	FIELD	Field*

Sample: GF01285-03 **Sampled:** 06/06/23 16:26
Name: G105 **Received:** 06/07/23 16:16
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	9.17	Feet		06/06/23 16:26	1		06/06/23 16:26	FIELD	Field*

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ANALYTICAL RESULTS

Sample: GF01285-15
Name: G208
Matrix: Ground Water - Grab

Sampled: 06/07/23 13:52
Received: 06/07/23 16:16
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	12.13	Feet		06/07/23 13:52	1		06/07/23 13:52	FIELD	Field*

Sample: GF01285-16
Name: G106
Matrix: Ground Water - Grab

Sampled: 06/07/23 12:15
Received: 06/07/23 16:16
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	10.44	Feet		06/07/23 12:15	1		06/07/23 12:15	FIELD	Field*

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ANALYTICAL RESULTS

Sample: GF01654-01
Name: G212
Matrix: Ground Water - Grab

Sampled: 06/07/23 15:35
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	41	mg/L	Q4	06/09/23 10:43	10	10	06/09/23 10:43	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/09/23 09:49	1	0.250	06/09/23 09:49	CRD	EPA 300.0 REV 2.1
Sulfate	54	mg/L	Q4	06/09/23 10:43	10	10	06/09/23 10:43	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.51	Feet		06/07/23 15:35	1		06/07/23 15:35	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		06/07/23 15:35	1		06/07/23 15:35	FIELD	Field*
Oxidation Reduction Potential	110	mV		06/07/23 15:35	1	-500	06/07/23 15:35	FIELD	Field*
pH, Field Measured	7.20	pH Units		06/07/23 15:35	1		06/07/23 15:35	FIELD	Field*
Specific Conductance, Field Measured	722.1	umhos/cm		06/07/23 15:35	1		06/07/23 15:35	FIELD	Field*
Temperature, Field Measured	16.4	°C		06/07/23 15:35	1		06/07/23 15:35	FIELD	Field*
Turbidity, Field Measured	8.79	NTU		06/07/23 15:35	1	0.00	06/07/23 15:35	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	280	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	480	mg/L	M	06/12/23 10:55	1	26	06/12/23 10:55	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 05:55	5	3.0	06/21/23 09:25	JMW	EPA 6020A
Arsenic	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:25	JMW	EPA 6020A
Barium	51	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:25	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:25	JMW	EPA 6020A
Boron	< 10	ug/L		06/15/23 05:55	5	10	06/21/23 09:25	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:25	JMW	EPA 6020A
Calcium	56	mg/L		06/15/23 05:55	5	0.20	06/21/23 09:25	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 05:55	5	4.0	06/21/23 09:25	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 05:55	5	2.0	06/21/23 09:25	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:25	JMW	EPA 6020A
Magnesium	27	mg/L	Q4	06/15/23 05:55	5	0.10	06/21/23 09:25	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 05:55	5	0.20	06/21/23 09:25	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:25	JMW	EPA 6020A
Potassium	0.25	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:25	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF01654-01
Name: G212
Matrix: Ground Water - Grab

Sampled: 06/07/23 15:35
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/22/23 07:36	JMW	EPA 6020A
Sodium	58	mg/L	Q4	06/15/23 05:55	5	0.10	06/21/23 09:25	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:25	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 05:55	1	0.020	06/20/23 11:51	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: GF01654-02
Name: G213
Matrix: Ground Water - Grab

Sampled: 06/07/23 16:49
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	45	mg/L		06/09/23 14:56	10	10	06/09/23 14:56	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/09/23 14:38	1	0.250	06/09/23 14:38	CRD	EPA 300.0 REV 2.1
Sulfate	59	mg/L		06/09/23 14:56	10	10	06/09/23 14:56	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.87	Feet		06/07/23 16:49	1		06/07/23 16:49	FIELD	Field*
Dissolved oxygen, Field	1.6	mg/L		06/07/23 16:49	1		06/07/23 16:49	FIELD	Field*
Oxidation Reduction Potential	-1.50	mV		06/07/23 16:49	1	-500	06/07/23 16:49	FIELD	Field*
pH, Field Measured	7.21	pH Units		06/07/23 16:49	1		06/07/23 16:49	FIELD	Field*
Specific Conductance, Field Measured	685.9	umhos/cm		06/07/23 16:49	1		06/07/23 16:49	FIELD	Field*
Temperature, Field Measured	17.6	°C		06/07/23 16:49	1		06/07/23 16:49	FIELD	Field*
Turbidity, Field Measured	66.9	NTU		06/07/23 16:49	1	0.00	06/07/23 16:49	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	240	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	500	mg/L		06/12/23 10:55	1	26	06/12/23 10:55	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 05:55	5	3.0	06/21/23 09:29	JMW	EPA 6020A
Arsenic	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:29	JMW	EPA 6020A
Barium	54	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:29	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:29	JMW	EPA 6020A
Boron	< 10	ug/L		06/15/23 05:55	5	10	06/21/23 09:29	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:29	JMW	EPA 6020A
Calcium	65	mg/L		06/15/23 05:55	5	0.20	06/21/23 09:29	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 05:55	5	4.0	06/21/23 09:29	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 05:55	5	2.0	06/21/23 09:29	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:29	JMW	EPA 6020A
Magnesium	30	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:29	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 05:55	5	0.20	06/21/23 09:29	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:29	JMW	EPA 6020A
Potassium	0.37	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:29	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF01654-02
Name: G213
Matrix: Ground Water - Grab

Sampled: 06/07/23 16:49
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	1.1	ug/L		06/15/23 05:55	5	1.0	06/22/23 07:43	JMW	EPA 6020A
Sodium	37	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:29	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:29	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 05:55	1	0.020	06/20/23 11:54	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: GF01654-03
Name: G200
Matrix: Ground Water - Grab

Sampled: 06/07/23 17:23
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	65	mg/L		06/09/23 18:34	25	25	06/09/23 18:34	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/09/23 17:22	1	0.250	06/09/23 17:22	CRD	EPA 300.0 REV 2.1
Sulfate	110	mg/L		06/09/23 18:34	25	25	06/09/23 18:34	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	6.35	Feet		06/07/23 17:23	1		06/07/23 17:23	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		06/07/23 17:23	1		06/07/23 17:23	FIELD	Field*
Oxidation Reduction Potential	26.0	mV		06/07/23 17:23	1	-500	06/07/23 17:23	FIELD	Field*
pH, Field Measured	7.11	pH Units		06/07/23 17:23	1		06/07/23 17:23	FIELD	Field*
Specific Conductance, Field Measured	913.0	umhos/cm		06/07/23 17:23	1		06/07/23 17:23	FIELD	Field*
Temperature, Field Measured	25.4	°C		06/07/23 17:23	1		06/07/23 17:23	FIELD	Field*
Turbidity, Field Measured	>1000	NTU		06/07/23 17:23	1	0.00	06/07/23 17:23	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	300	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	630	mg/L		06/12/23 10:55	1	26	06/12/23 10:55	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 05:55	5	3.0	06/21/23 09:32	JMW	EPA 6020A
Arsenic	8.5	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:32	JMW	EPA 6020A
Barium	150	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:32	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:32	JMW	EPA 6020A
Boron	11	ug/L		06/15/23 05:55	5	10	06/21/23 09:32	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:32	JMW	EPA 6020A
Calcium	110	mg/L		06/15/23 05:55	5	0.20	06/21/23 09:32	JMW	EPA 6020A
Chromium	12	ug/L		06/15/23 05:55	5	4.0	06/21/23 09:32	JMW	EPA 6020A
Cobalt	7.3	ug/L		06/15/23 05:55	5	2.0	06/21/23 09:32	JMW	EPA 6020A
Lead	16	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:32	JMW	EPA 6020A
Magnesium	53	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:32	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 05:55	5	0.20	06/21/23 12:16	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:32	JMW	EPA 6020A
Potassium	1.9	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:32	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF01654-03
Name: G200
Matrix: Ground Water - Grab

Sampled: 06/07/23 17:23
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	2.9	ug/L		06/15/23 05:55	5	1.0	06/22/23 07:45	JMW	EPA 6020A
Sodium	56	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:32	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:32	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 05:55	1	0.020	06/20/23 11:56	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: GF01654-04
Name: R201
Matrix: Ground Water - Grab

Sampled: 06/07/23 15:40
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	89	mg/L		06/09/23 13:44	10	10	06/09/23 13:44	CRD	EPA 300.0 REV 2.1
Fluoride	< 0.250	mg/L		06/09/23 13:26	1	0.250	06/09/23 13:26	CRD	EPA 300.0 REV 2.1
Sulfate	220	mg/L		06/09/23 19:10	50	50	06/09/23 19:10	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	6.18	Feet		06/07/23 15:40	1		06/07/23 15:40	FIELD	Field*
Dissolved oxygen, Field	2.4	mg/L		06/07/23 15:40	1		06/07/23 15:40	FIELD	Field*
Oxidation Reduction Potential	-123	mV		06/07/23 15:40	1	-500	06/07/23 15:40	FIELD	Field*
pH, Field Measured	7.29	pH Units		06/07/23 15:40	1		06/07/23 15:40	FIELD	Field*
Specific Conductance, Field Measured	1430	umhos/cm		06/07/23 15:40	1		06/07/23 15:40	FIELD	Field*
Temperature, Field Measured	19.0	°C		06/07/23 15:40	1		06/07/23 15:40	FIELD	Field*
Turbidity, Field Measured	14.6	NTU		06/07/23 15:40	1	0.00	06/07/23 15:40	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	420	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	930	mg/L		06/12/23 10:55	1	26	06/12/23 10:55	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 05:55	5	3.0	06/21/23 09:36	JMW	EPA 6020A
Arsenic	3.9	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:36	JMW	EPA 6020A
Barium	78	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:36	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:36	JMW	EPA 6020A
Boron	< 10	ug/L		06/15/23 05:55	5	10	06/21/23 09:36	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:36	JMW	EPA 6020A
Calcium	120	mg/L		06/15/23 05:55	5	0.20	06/21/23 09:36	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 05:55	5	4.0	06/21/23 09:36	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 05:55	5	2.0	06/21/23 09:36	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:36	JMW	EPA 6020A
Magnesium	46	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:36	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 05:55	5	0.20	06/21/23 09:36	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:36	JMW	EPA 6020A
Potassium	0.84	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:36	JMW	EPA 6020A

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GF01654-04
Name: R201
Matrix: Ground Water - Grab

Sampled: 06/07/23 15:40
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/22/23 07:47	JMW	EPA 6020A
Sodium	120	mg/L		06/15/23 05:55	5	0.10	06/21/23 09:36	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 09:36	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 05:55	1	0.020	06/20/23 11:57	TJJ	EPA 6010B

Sample: GF01654-12
Name: R205
Matrix: Ground Water - Grab

Sampled: 06/08/23 15:15
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	7.09	Feet		06/08/23 15:15	1		06/08/23 15:15	FIELD	Field*

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ANALYTICAL RESULTS

Sample: GF01654-18
Name: G217
Matrix: Ground Water - Grab

Sampled: 06/08/23 16:56
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	130	mg/L		06/12/23 11:44	100	100	06/12/23 11:44	CRD	EPA 300.0 REV 2.1
Fluoride	0.296	mg/L		06/09/23 14:03	1	0.250	06/09/23 14:03	CRD	EPA 300.0 REV 2.1
Sulfate	370	mg/L		06/12/23 11:44	100	100	06/12/23 11:44	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	16.35	Feet		06/08/23 16:56	1		06/08/23 16:56	FIELD	Field*
Dissolved oxygen, Field	2.3	mg/L		06/08/23 16:56	1		06/08/23 16:56	FIELD	Field*
Oxidation Reduction Potential	2.00	mV		06/08/23 16:56	1	-500	06/08/23 16:56	FIELD	Field*
pH, Field Measured	6.74	pH Units		06/08/23 16:56	1		06/08/23 16:56	FIELD	Field*
Specific Conductance, Field Measured	1490	umhos/cm		06/08/23 16:56	1		06/08/23 16:56	FIELD	Field*
Temperature, Field Measured	19.6	°C		06/08/23 16:56	1		06/08/23 16:56	FIELD	Field*
Turbidity, Field Measured	61.5	NTU		06/08/23 16:56	1	0.00	06/08/23 16:56	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	310	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	1100	mg/L		06/12/23 10:55	1	26	06/12/23 10:55	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 05:55	5	3.0	06/21/23 10:58	JMW	EPA 6020A
Arsenic	1.3	ug/L		06/15/23 05:55	5	1.0	06/21/23 10:58	JMW	EPA 6020A
Barium	110	ug/L		06/15/23 05:55	5	1.0	06/21/23 10:58	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 10:58	JMW	EPA 6020A
Boron	16	ug/L		06/15/23 05:55	5	10	06/21/23 10:58	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 10:58	JMW	EPA 6020A
Calcium	180	mg/L		06/15/23 05:55	5	0.20	06/21/23 10:58	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 05:55	5	4.0	06/21/23 10:58	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 05:55	5	2.0	06/21/23 10:58	JMW	EPA 6020A
Lead	1.2	ug/L		06/15/23 05:55	5	1.0	06/21/23 10:58	JMW	EPA 6020A
Magnesium	68	mg/L		06/15/23 05:55	5	0.10	06/21/23 10:58	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 05:55	5	0.20	06/21/23 10:58	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 10:58	JMW	EPA 6020A
Potassium	0.71	mg/L		06/15/23 05:55	5	0.10	06/21/23 10:58	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF01654-18
Name: G217
Matrix: Ground Water - Grab

Sampled: 06/08/23 16:56
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/22/23 08:36	JMW	EPA 6020A
Sodium	69	mg/L		06/15/23 05:55	5	0.10	06/21/23 10:58	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 10:58	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 05:55	1	0.020	06/20/23 12:12	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: GF01654-20
Name: G206
Matrix: Ground Water - Grab

Sampled: 06/09/23 13:20
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	22	mg/L	Q4	06/09/23 20:04	5	5.0	06/09/23 20:04	CRD	EPA 300.0 REV 2.1
Sulfate	140	mg/L	Q4	06/09/23 20:58	50	50	06/09/23 20:58	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.1	Feet		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Oxidation Reduction Potential	-232	mV		06/09/23 13:20	1	-500	06/09/23 13:20	FIELD	Field*
pH, Field Measured	7.08	pH Units		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Specific Conductance, Field Measured	910.0	umhos/cm		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Temperature, Field Measured	18.3	°C		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		06/09/23 13:20	1	0.00	06/09/23 13:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	310	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Fluoride	0.430	mg/L		06/12/23 16:16	1	0.250	06/12/23 16:16	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	600	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 05:55	5	3.0	06/21/23 11:49	JMW	EPA 6020A
Arsenic	2.6	ug/L		06/15/23 05:55	5	1.0	06/21/23 11:49	JMW	EPA 6020A
Barium	50	ug/L		06/15/23 05:55	5	1.0	06/21/23 11:49	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 11:49	JMW	EPA 6020A
Boron	12	ug/L		06/15/23 05:55	5	10	06/21/23 11:49	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 11:49	JMW	EPA 6020A
Calcium	86	mg/L		06/15/23 05:55	5	0.20	06/21/23 11:49	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 05:55	5	4.0	06/21/23 11:49	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 05:55	5	2.0	06/21/23 11:49	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 11:49	JMW	EPA 6020A
Magnesium	37	mg/L		06/15/23 05:55	5	0.10	06/21/23 11:49	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 05:55	5	0.20	06/21/23 11:49	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 11:49	JMW	EPA 6020A
Potassium	0.85	mg/L		06/15/23 05:55	5	0.10	06/21/23 11:49	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF01654-20
Name: G206
Matrix: Ground Water - Grab

Sampled: 06/09/23 13:20
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/22/23 08:39	JMW	EPA 6020A
Sodium	50	mg/L		06/15/23 05:55	5	0.10	06/21/23 11:49	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 05:55	5	1.0	06/21/23 11:49	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 05:55	1	0.020	06/20/23 12:14	TJJ	EPA 6010B

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Peoria, IL 61615
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ANALYTICAL RESULTS

Sample: GF01654-21
Name: G206 DUP
Matrix: Ground Water - Grab

Sampled: 06/09/23 13:20
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	22	mg/L	Q4	06/09/23 23:05	5	5.0	06/09/23 23:05	CRD	EPA 300.0 REV 2.1
Sulfate	140	mg/L	Q4	06/09/23 23:23	50	50	06/09/23 23:23	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.1	Feet		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Dissolved oxygen, Field	1.3	mg/L		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Oxidation Reduction Potential	-232	mV		06/09/23 13:20	1	-500	06/09/23 13:20	FIELD	Field*
pH, Field Measured	7.08	pH Units		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Specific Conductance, Field Measured	910.0	umhos/cm		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Temperature, Field Measured	18.3	°C		06/09/23 13:20	1		06/09/23 13:20	FIELD	Field*
Turbidity, Field Measured	< 0.00	NTU		06/09/23 13:20	1	0.00	06/09/23 13:20	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	310	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Fluoride	0.417	mg/L		06/12/23 16:18	1	0.250	06/12/23 16:18	ANK	SM 4500F C 1997
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	600	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 06:02	5	3.0	06/21/23 11:53	JMW	EPA 6020A
Arsenic	2.8	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:53	JMW	EPA 6020A
Barium	49	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:53	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:53	JMW	EPA 6020A
Boron	10	ug/L		06/15/23 06:02	5	10	06/21/23 11:53	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:53	JMW	EPA 6020A
Calcium	86	mg/L	Q4	06/15/23 06:02	5	0.20	06/21/23 11:53	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 06:02	5	4.0	06/21/23 11:53	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 06:02	5	2.0	06/21/23 11:53	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:53	JMW	EPA 6020A
Magnesium	37	mg/L	Q4	06/15/23 06:02	5	0.10	06/21/23 11:53	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 06:02	5	0.20	06/21/23 11:53	JMW	EPA 6020A
Molybdenum	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:53	JMW	EPA 6020A
Potassium	0.81	mg/L		06/15/23 06:02	5	0.10	06/21/23 11:53	JMW	EPA 6020A

Pace Analytical Services, LLC
2231 W. Altorfer Drive
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ANALYTICAL RESULTS

Sample: GF01654-21
Name: G206 DUP
Matrix: Ground Water - Grab

Sampled: 06/09/23 13:20
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/22/23 08:45	JMW	EPA 6020A
Sodium	50	mg/L	Q4	06/15/23 06:02	5	0.10	06/21/23 11:53	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:53	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 06:02	1	0.020	06/20/23 12:21	TJJ	EPA 6010B

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ANALYTICAL RESULTS

Sample: GF01654-22
Name: G206D
Matrix: Ground Water - Grab

Sampled: 06/09/23 12:29
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	25	mg/L		06/10/23 01:30	10	10	06/10/23 01:30	CRD	EPA 300.0 REV 2.1
Fluoride	0.873	mg/L		06/10/23 01:11	1	0.250	06/10/23 01:11	CRD	EPA 300.0 REV 2.1
Sulfate	160	mg/L		06/10/23 01:48	100	100	06/10/23 01:48	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	30.16	Feet		06/09/23 12:29	1		06/09/23 12:29	FIELD	Field*
Dissolved oxygen, Field	0.85	mg/L		06/09/23 12:29	1		06/09/23 12:29	FIELD	Field*
Oxidation Reduction Potential	-194	mV		06/09/23 12:29	1	-500	06/09/23 12:29	FIELD	Field*
pH, Field Measured	7.21	pH Units		06/09/23 12:29	1		06/09/23 12:29	FIELD	Field*
Specific Conductance, Field Measured	1150	umhos/cm		06/09/23 12:29	1		06/09/23 12:29	FIELD	Field*
Temperature, Field Measured	18.1	°C		06/09/23 12:29	1		06/09/23 12:29	FIELD	Field*
Turbidity, Field Measured	17.6	NTU		06/09/23 12:29	1	0.00	06/09/23 12:29	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	400	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	680	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 06:02	5	3.0	06/21/23 11:56	JMW	EPA 6020A
Arsenic	16	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:56	JMW	EPA 6020A
Barium	170	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:56	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:56	JMW	EPA 6020A
Boron	120	ug/L		06/15/23 06:02	5	10	06/21/23 11:56	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:56	JMW	EPA 6020A
Calcium	86	mg/L		06/15/23 06:02	5	0.20	06/21/23 11:56	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 06:02	5	4.0	06/21/23 11:56	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 06:02	5	2.0	06/21/23 11:56	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:56	JMW	EPA 6020A
Magnesium	31	mg/L		06/15/23 06:02	5	0.10	06/21/23 11:56	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 06:02	5	0.20	06/21/23 11:56	JMW	EPA 6020A
Molybdenum	16	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:56	JMW	EPA 6020A
Potassium	1.1	mg/L		06/15/23 06:02	5	0.10	06/21/23 11:56	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF01654-22
Name: G206D
Matrix: Ground Water - Grab

Sampled: 06/09/23 12:29
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/22/23 08:52	JMW	EPA 6020A
Sodium	120	mg/L		06/15/23 06:02	5	0.10	06/21/23 11:56	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 11:56	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 06:02	1	0.020	06/20/23 12:24	TJJ	EPA 6010B

Sample: GF01654-23
Name: G207
Matrix: Ground Water - Grab

Sampled: 06/09/23 10:34
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Field - PIA									
Depth, From Measuring Point	12.6	Feet		06/09/23 10:34	1		06/09/23 10:34	FIELD	Field*

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ANALYTICAL RESULTS

Sample: GF01654-24
Name: G209
Matrix: Ground Water - Grab

Sampled: 06/09/23 09:44
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Chloride	61	mg/L		06/10/23 03:22	10	10	06/10/23 03:22	CRD	EPA 300.0 REV 2.1
Fluoride	0.396	mg/L		06/10/23 03:03	1	0.250	06/10/23 03:03	CRD	EPA 300.0 REV 2.1
Sulfate	230	mg/L		06/10/23 04:18	100	100	06/10/23 04:18	CRD	EPA 300.0 REV 2.1
Field - PIA									
Depth, From Measuring Point	12.03	Feet		06/09/23 09:44	1		06/09/23 09:44	FIELD	Field*
Dissolved oxygen, Field	7.2	mg/L		06/09/23 09:44	1		06/09/23 09:44	FIELD	Field*
Oxidation Reduction Potential	-33.0	mV		06/09/23 09:44	1	-500	06/09/23 09:44	FIELD	Field*
pH, Field Measured	7.02	pH Units		06/09/23 09:44	1		06/09/23 09:44	FIELD	Field*
Specific Conductance, Field Measured	1290	umhos/cm		06/09/23 09:44	1		06/09/23 09:44	FIELD	Field*
Temperature, Field Measured	16.1	°C		06/09/23 09:44	1		06/09/23 09:44	FIELD	Field*
Turbidity, Field Measured	2.20	NTU		06/09/23 09:44	1	0.00	06/09/23 09:44	FIELD	Field*
General Chemistry - PIA									
Alkalinity - bicarbonate as CaCO3	380	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Alkalinity - carbonate as CaCO3	< 10	mg/L		06/15/23 12:21	1	10	06/15/23 12:21	CPS	SM 2320B 1997*
Soluble General Chemistry - PIA									
Solids - total dissolved solids (TDS)	860	mg/L		06/13/23 14:44	1	26	06/13/23 14:44	MKH	SM 2540C
Total Metals - PIA									
Antimony	< 3.0	ug/L		06/15/23 06:02	5	3.0	06/21/23 12:04	JMW	EPA 6020A
Arsenic	2.9	ug/L		06/15/23 06:02	5	1.0	06/21/23 12:04	JMW	EPA 6020A
Barium	70	ug/L		06/15/23 06:02	5	1.0	06/21/23 12:04	JMW	EPA 6020A
Beryllium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 12:04	JMW	EPA 6020A
Boron	11	ug/L		06/15/23 06:02	5	10	06/21/23 12:04	JMW	EPA 6020A
Cadmium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 12:04	JMW	EPA 6020A
Calcium	140	mg/L		06/15/23 06:02	5	0.20	06/21/23 12:04	JMW	EPA 6020A
Chromium	< 4.0	ug/L		06/15/23 06:02	5	4.0	06/21/23 12:04	JMW	EPA 6020A
Cobalt	< 2.0	ug/L		06/15/23 06:02	5	2.0	06/21/23 12:04	JMW	EPA 6020A
Lead	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 12:04	JMW	EPA 6020A
Magnesium	50	mg/L		06/15/23 06:02	5	0.10	06/21/23 12:04	JMW	EPA 6020A
Mercury	< 0.20	ug/L		06/15/23 06:02	5	0.20	06/21/23 12:04	JMW	EPA 6020A
Molybdenum	3.8	ug/L		06/15/23 06:02	5	1.0	06/21/23 12:04	JMW	EPA 6020A
Potassium	0.45	mg/L		06/15/23 06:02	5	0.10	06/21/23 12:04	JMW	EPA 6020A

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ANALYTICAL RESULTS

Sample: GF01654-24
Name: G209
Matrix: Ground Water - Grab

Sampled: 06/09/23 09:44
Received: 06/09/23 06:50
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Selenium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/22/23 09:05	JMW	EPA 6020A
Sodium	73	mg/L		06/15/23 06:02	5	0.10	06/21/23 12:04	JMW	EPA 6020A
Thallium	< 1.0	ug/L		06/15/23 06:02	5	1.0	06/21/23 12:04	JMW	EPA 6020A
Lithium	< 0.020	mg/L		06/15/23 06:02	1	0.020	06/20/23 12:26	TJJ	EPA 6010B

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B335001 - No Prep - SM 2540C									
Blank (B335001-BLK1)				Prepared & Analyzed: 06/02/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B335001-BS1)				Prepared & Analyzed: 06/02/23					
Solids - total dissolved solids (TDS)	980	mg/L		1000		98	84.9-109		
Batch B335621 - No Prep - SM 2540C									
Blank (B335621-BLK1)				Prepared & Analyzed: 06/12/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B335621-BS1)				Prepared & Analyzed: 06/12/23					
Solids - total dissolved solids (TDS)	1030	mg/L		1000		103	84.9-109		
Duplicate (B335621-DUP1)	**Sample: GF01654-01**			Prepared & Analyzed: 06/12/23					
Solids - total dissolved solids (TDS)	445	mg/L	M		475			7	5
Batch B335703 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B335703-MS1)	**Sample: GF01654-01**			Prepared & Analyzed: 06/09/23					
Sulfate	1.00E9	mg/L	Q4	1.500	53.8	NR	80-120		
Fluoride	1.75	mg/L		1.500	0.222	102	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	41	NR	80-120		
Matrix Spike Dup (B335703-MSD1)	**Sample: GF01654-01**			Prepared & Analyzed: 06/09/23					
Fluoride	1.74	mg/L		1.500	0.222	101	80-120	0.7	20
Chloride	1.0E9	mg/L	Q4	1.500	41	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	53.8	NR	80-120	0	20
Batch B335706 - IC No Prep - EPA 300.0 REV 2.1									
Matrix Spike (B335706-MS2)	**Sample: GF01654-20**			Prepared & Analyzed: 06/09/23					
Sulfate	1.00E9	mg/L	Q4	1.500	138	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	22	NR	80-120		
Matrix Spike (B335706-MS3)	**Sample: GF01654-21**			Prepared & Analyzed: 06/10/23					
Sulfate	1.00E9	mg/L	Q4	1.500	138	NR	80-120		
Chloride	1.0E9	mg/L	Q4	1.500	22	NR	80-120		
Matrix Spike Dup (B335706-MSD2)	**Sample: GF01654-20**			Prepared & Analyzed: 06/09/23					
Chloride	1.0E9	mg/L	Q4	1.500	22	NR	80-120	0	20
Sulfate	1.00E9	mg/L	Q4	1.500	138	NR	80-120	0	20
Matrix Spike Dup (B335706-MSD3)	**Sample: GF01654-21**			Prepared & Analyzed: 06/10/23					
Sulfate	1.00E9	mg/L	Q4	1.500	138	NR	80-120	0	20
Chloride	1.0E9	mg/L	Q4	1.500	22	NR	80-120	0	20
Batch B335739 - SW 3015 - EPA 6010B									
Blank (B335739-BLK1)				Prepared: 06/12/23 Analyzed: 06/13/23					
Lithium	< 0.020	mg/L							
LCS (B335739-BS1)				Prepared: 06/12/23 Analyzed: 06/13/23					
Lithium	0.588	mg/L		0.5556		106	80-120		
Batch B335739 - SW 3015 - EPA 6020A									
Blank (B335739-BLK1)				Prepared: 06/12/23 Analyzed: 06/13/23					
Antimony	< 3.0	ug/L							

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B335739-BLK1)				Prepared: 06/12/23 Analyzed: 06/13/23					
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B335739-BS1)				Prepared: 06/12/23 Analyzed: 06/13/23					
Antimony	537	ug/L		555.6		97	80-120		
Arsenic	545	ug/L		555.6		98	80-120		
Barium	534	ug/L		555.6		96	80-120		
Beryllium	542	ug/L		555.6		98	80-120		
Boron	557	ug/L		555.6		100	80-120		
Cadmium	568	ug/L		555.6		102	80-120		
Calcium	5.90	mg/L		5.556		106	80-120		
Chromium	569	ug/L		555.6		102	80-120		
Cobalt	543	ug/L		555.6		98	80-120		
Lead	562	ug/L		555.6		101	80-120		
Magnesium	5.53	mg/L		5.556		99	80-120		
Mercury	54.9	ug/L		55.56		99	80-120		
Molybdenum	552	ug/L		555.6		99	80-120		
Potassium	5.66	mg/L		5.556		102	80-120		
Selenium	573	ug/L		555.6		103	80-120		
Sodium	5.65	mg/L		5.556		102	80-120		
Thallium	561	ug/L		555.6		101	80-120		
Batch B335751 - No Prep - SM 4500F C 1997									
Matrix Spike (B335751-MS7)	**Sample: GF01654-21**			Prepared & Analyzed: 06/12/23					
Fluoride	1.46	mg/L		1.000	0.417	104	80-120		
Matrix Spike Dup (B335751-MSD7)	**Sample: GF01654-21**			Prepared & Analyzed: 06/12/23					
Fluoride	1.45	mg/L		1.000	0.417	104	80-120	0.6	20
Batch B335822 - No Prep - SM 2320B 1997									
Duplicate (B335822-DUP4)	**Sample: GF00140-23**			Prepared & Analyzed: 06/12/23					
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Alkalinity - bicarbonate as CaCO3	325	mg/L			300			8	10
Batch B335919 - No Prep - SM 2540C									

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Blank (B335919-BLK1)				Prepared & Analyzed: 06/13/23					
Solids - total dissolved solids (TDS)	< 17	mg/L							
LCS (B335919-BS1)				Prepared & Analyzed: 06/13/23					
Solids - total dissolved solids (TDS)	1050	mg/L		1000		105	84.9-109		
Duplicate (B335919-DUP1)	**Sample: GF01654-21**			Prepared & Analyzed: 06/13/23					
Solids - total dissolved solids (TDS)	595	mg/L			595			0	5
Batch B336092 - SW 3015 - EPA 6010B									
Blank (B336092-BLK1)				Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	< 0.020	mg/L							
LCS (B336092-BS1)				Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	0.583	mg/L		0.5556		105	80-120		
Matrix Spike (B336092-MS1)	**Sample: GF01654-01**			Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	0.570	mg/L		0.5556	ND	103	75-125		
Matrix Spike Dup (B336092-MSD1)	**Sample: GF01654-01**			Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	0.571	mg/L		0.5556	ND	103	75-125	0.2	20
Batch B336092 - SW 3015 - EPA 6020A									
Blank (B336092-BLK1)				Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B336092-BS1)				Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	548	ug/L		555.6		99	80-120		
Arsenic	550	ug/L		555.6		99	80-120		
Barium	558	ug/L		555.6		100	80-120		
Beryllium	502	ug/L		555.6		90	80-120		
Boron	492	ug/L		555.6		89	80-120		
Cadmium	563	ug/L		555.6		101	80-120		
Calcium	5.73	mg/L		5.556		103	80-120		
Chromium	566	ug/L		555.6		102	80-120		
Cobalt	534	ug/L		555.6		96	80-120		
Lead	538	ug/L		555.6		97	80-120		
Magnesium	5.58	mg/L		5.556		100	80-120		

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B336092-BS1)				Prepared: 06/15/23 Analyzed: 06/21/23					
Mercury	52.7	ug/L		55.56		95	80-120		
Molybdenum	546	ug/L		555.6		98	80-120		
Potassium	5.42	mg/L		5.556		98	80-120		
Selenium	574	ug/L		555.6		103	80-120		
Sodium	5.41	mg/L		5.556		97	80-120		
Thallium	538	ug/L		555.6		97	80-120		
Matrix Spike (B336092-MS1)	**Sample: GF01654-01**			Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	542	ug/L		555.6	ND	98	75-125		
Arsenic	545	ug/L		555.6	ND	98	75-125		
Barium	598	ug/L		555.6	51.2	98	75-125		
Beryllium	493	ug/L		555.6	ND	89	75-125		
Boron	495	ug/L		555.6	ND	89	75-125		
Cadmium	554	ug/L		555.6	ND	100	75-125		
Calcium	59.8	mg/L		5.556	55.6	75	75-125		
Chromium	554	ug/L		555.6	ND	100	75-125		
Cobalt	516	ug/L		555.6	ND	93	75-125		
Lead	516	ug/L		555.6	ND	93	75-125		
Magnesium	30.8	mg/L	Q4	5.556	26.8	71	75-125		
Mercury	53.2	ug/L		55.56	0.194	95	75-125		
Molybdenum	540	ug/L		555.6	ND	97	75-125		
Potassium	5.49	mg/L		5.556	0.251	94	75-125		
Selenium	567	ug/L		555.6	0.822	102	75-125		
Sodium	60.5	mg/L	Q4	5.556	58.3	39	75-125		
Thallium	516	ug/L		555.6	ND	93	75-125		
Matrix Spike Dup (B336092-MSD1)	**Sample: GF01654-01**			Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	550	ug/L		555.6	ND	99	75-125	1	20
Arsenic	554	ug/L		555.6	ND	100	75-125	2	20
Barium	611	ug/L		555.6	51.2	101	75-125	2	20
Beryllium	509	ug/L		555.6	ND	92	75-125	3	20
Boron	507	ug/L		555.6	ND	91	75-125	2	20
Cadmium	561	ug/L		555.6	ND	101	75-125	1	20
Calcium	60.1	mg/L		5.556	55.6	82	75-125	0.7	20
Chromium	563	ug/L		555.6	ND	101	75-125	2	20
Cobalt	523	ug/L		555.6	ND	94	75-125	1	20
Lead	529	ug/L		555.6	ND	95	75-125	2	20
Magnesium	30.9	mg/L	Q4	5.556	26.8	73	75-125	0.4	20
Mercury	54.0	ug/L		55.56	0.194	97	75-125	1	20
Molybdenum	547	ug/L		555.6	ND	99	75-125	1	20
Potassium	5.62	mg/L		5.556	0.251	97	75-125	2	20
Selenium	572	ug/L		555.6	0.822	103	75-125	0.8	20
Sodium	60.6	mg/L	Q4	5.556	58.3	41	75-125	0.2	20
Thallium	530	ug/L		555.6	ND	95	75-125	3	20
Batch B336093 - SW 3015 - EPA 6010B									
Blank (B336093-BLK1)				Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	< 0.020	mg/L							
LCS (B336093-BS1)				Prepared: 06/15/23 Analyzed: 06/20/23					

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
LCS (B336093-BS1)				Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	0.597	mg/L		0.5556		107	80-120		
Matrix Spike (B336093-MS1)	**Sample: GF01654-21**			Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	0.578	mg/L		0.5556	ND	104	75-125		
Matrix Spike Dup (B336093-MSD1)	**Sample: GF01654-21**			Prepared: 06/15/23 Analyzed: 06/20/23					
Lithium	0.562	mg/L		0.5556	ND	101	75-125	3	20
Batch B336093 - SW 3015 - EPA 6020A									
Blank (B336093-BLK1)				Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	< 3.0	ug/L							
Arsenic	< 1.0	ug/L							
Barium	< 1.0	ug/L							
Beryllium	< 1.0	ug/L							
Boron	< 10	ug/L							
Cadmium	< 1.0	ug/L							
Calcium	< 0.20	mg/L							
Chromium	< 4.0	ug/L							
Cobalt	< 2.0	ug/L							
Lead	< 1.0	ug/L							
Magnesium	< 0.10	mg/L							
Mercury	< 0.20	ug/L							
Molybdenum	< 1.0	ug/L							
Potassium	< 0.10	mg/L							
Selenium	< 1.0	ug/L							
Sodium	< 0.10	mg/L							
Thallium	< 1.0	ug/L							
LCS (B336093-BS1)				Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	536	ug/L		555.6		96	80-120		
Arsenic	542	ug/L		555.6		98	80-120		
Barium	551	ug/L		555.6		99	80-120		
Beryllium	499	ug/L		555.6		90	80-120		
Boron	495	ug/L		555.6		89	80-120		
Cadmium	553	ug/L		555.6		100	80-120		
Calcium	5.42	mg/L		5.556		97	80-120		
Chromium	558	ug/L		555.6		100	80-120		
Cobalt	527	ug/L		555.6		95	80-120		
Lead	519	ug/L		555.6		93	80-120		
Magnesium	5.46	mg/L		5.556		98	80-120		
Mercury	52.4	ug/L		55.56		94	80-120		
Molybdenum	535	ug/L		555.6		96	80-120		
Potassium	5.31	mg/L		5.556		96	80-120		
Selenium	576	ug/L		555.6		104	80-120		
Sodium	5.32	mg/L		5.556		96	80-120		
Thallium	518	ug/L		555.6		93	80-120		
Matrix Spike (B336093-MS1)	**Sample: GF01654-21**			Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	537	ug/L		555.6	ND	97	75-125		
Arsenic	545	ug/L		555.6	2.77	98	75-125		
Barium	585	ug/L		555.6	48.9	96	75-125		

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Matrix Spike (B336093-MS1)	**Sample: GF01654-21**			Prepared: 06/15/23 Analyzed: 06/21/23					
Beryllium	490	ug/L		555.6	ND	88	75-125		
Boron	496	ug/L		555.6	10.3	87	75-125		
Cadmium	543	ug/L		555.6	ND	98	75-125		
Calcium	87.9	mg/L	Q4	5.556	86.4	27	75-125		
Chromium	544	ug/L		555.6	ND	98	75-125		
Cobalt	509	ug/L		555.6	ND	92	75-125		
Lead	513	ug/L		555.6	ND	92	75-125		
Magnesium	38.6	mg/L	Q4	5.556	36.7	34	75-125		
Mercury	53.3	ug/L		55.56	ND	96	75-125		
Molybdenum	534	ug/L		555.6	0.750	96	75-125		
Potassium	5.94	mg/L		5.556	0.806	92	75-125		
Selenium	563	ug/L		555.6	ND	101	75-125		
Sodium	50.9	mg/L	Q4	5.556	50.2	12	75-125		
Thallium	514	ug/L		555.6	ND	92	75-125		
Matrix Spike Dup (B336093-MSD1)	**Sample: GF01654-21**			Prepared: 06/15/23 Analyzed: 06/21/23					
Antimony	530	ug/L		555.6	ND	95	75-125	1	20
Arsenic	540	ug/L		555.6	2.77	97	75-125	1	20
Barium	584	ug/L		555.6	48.9	96	75-125	0.09	20
Beryllium	493	ug/L		555.6	ND	89	75-125	0.5	20
Boron	501	ug/L		555.6	10.3	88	75-125	1	20
Cadmium	541	ug/L		555.6	ND	97	75-125	0.3	20
Calcium	88.4	mg/L	Q4	5.556	86.4	35	75-125	0.5	20
Chromium	539	ug/L		555.6	ND	97	75-125	1	20
Cobalt	504	ug/L		555.6	ND	91	75-125	0.9	20
Lead	505	ug/L		555.6	ND	91	75-125	2	20
Magnesium	38.8	mg/L	Q4	5.556	36.7	37	75-125	0.4	20
Mercury	53.0	ug/L		55.56	ND	95	75-125	0.5	20
Molybdenum	534	ug/L		555.6	0.750	96	75-125	0.02	20
Potassium	5.91	mg/L		5.556	0.806	92	75-125	0.4	20
Selenium	554	ug/L		555.6	ND	100	75-125	2	20
Sodium	51.0	mg/L	Q4	5.556	50.2	15	75-125	0.3	20
Thallium	506	ug/L		555.6	ND	91	75-125	2	20
Batch B336210 - No Prep - SM 2320B 1997									
Duplicate (B336210-DUP1)	**Sample: GF01654-01**			Prepared & Analyzed: 06/15/23					
Alkalinity - bicarbonate as CaCO3	262	mg/L			275			5	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10
Duplicate (B336210-DUP4)	**Sample: GF01654-21**			Prepared & Analyzed: 06/15/23					
Alkalinity - bicarbonate as CaCO3	288	mg/L			312			8	10
Alkalinity - carbonate as CaCO3	< 10	mg/L			ND				10

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

M Analyte failed to meet the required acceptance criteria for duplicate analysis.
Q4 The matrix spike recovery result is unusable since the analyte concentration in the sample is greater than four times the spike level. The associated blank spike was acceptable.

Gail J Schindler

Certified by: Gail Schindler, Project Manager

GF00140
~~6-1-23~~
6-1-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 7

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, 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	Y/N	Analysis Test: COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G214		G	6/1	1300		6																								
2	G111		G	6/1	1345		8																								
3	G310		G	6/1	1242		13																								
4	G312		G	6/1	1401		13																								
5	G279		G	6/1	1207		15																								
6	G277		G	6/1	1027		15																								
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1	Brendan Glennon	6/1	1645							
				Grace Jackson	6/1/23	16:45	24.2	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Brendan Glennon
SIGNATURE of SAMPLER: Brendan Glennon
DATE Signed (MM/DD/YY): 06/01/23

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023

GF00140
VMW 6-1-23

CHAIN-OF-CUSTODY / Analytical Request Document

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ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
								Requested Analysis Filtered (Y/N)																									
1	G101	WT		5/31/23	1352		4																								
2	G107				1419		4																								
3	G109				1530		4																								
4	G110				1445		4																								
5	G119				1024		4																								
6	G120				1020		4																								
7	G121				1120		4																								
8	G122				1126		4																								
9	G123				1220		4																								
10	G124				1250		4																								
11	G125				1310		4																								
12	G302				1600		13																								
13	G302 Dup				1600		13																								
14	G303				1723		13																								
15	G316				1033		13																								
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1	Joseph R Reed	6/1/23	1120		6/1/23	1105				
		6/1/23	1357		6/1/23	13:59	3.5	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Joe Reed
SIGNATURE of SAMPLER: Joseph R Reed
DATE Signed (MM/DD/YY): 6/1/23

GF00140
vmw 6-1-23

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 2 of 7

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023

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)	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G406	WT		5/31/23	1645		14																								
2	G406 Dup				1645		14																								
3	G407				1409		14																								
4	G410				1327		6																								
5	G411				1200		6																								
6	G314D	WT		6/1/23	0938		13																								
7	G314	WT		6/1/23	1047		13																								
8	G218	WT	G	6/1/23	1112		15																								
9	G101 DUP	WT		5/31/23	1352		4																								
10	G124 DUP	WT		5/31/23	1250		4																								
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1		6/1/23	1106		6/1/23	1106				
		6/1/23	1353		6/1/23	13:59	3.5	Y	N	Y

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joel

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 6/1/23

YS 6-19-23

GF00140
Vmw ~~6-1-23~~
6-1-23

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 7

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

COFFEEN, IL
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
845 QUARTERLY REPORTS - QUARTER 2, 2023
ATTACHMENT B.

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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G314		G	6/1/23	1300		6																								
2	G311		G	6/1/23	1345		8																								
3	G310		G	6/1/23	1242		13																								
4	G312		G	6/1/23	1401		13																								
5	G279		G	6/1/23	1207		15																								
6	G277		G	6/1/23	1027		15																								
7	G111 DUP GS 6-19-23		G	6/1/23	1345		4																								
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1	Brenden Glenn	6/1/23	1645							
	GS 6-19-23			Grace Jackson	6/1/23	16:45	24.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brenden Glenn

SIGNATURE of SAMPLER: Brenden Glenn DATE Signed (MM/DD/YY): 06/01/23

~~GE~~ VMW GF00245 6-2-23 VMW

CHAIN-OF-CUSTODY / Analytical Request Document

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Page: 1 of 1

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, 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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G108	WT	G	6/1/23	1531		4																								
2	T127				1630		6																								
3	T128				1528		6																								
4	G151				1434		4																								
5	G215				1532		15																								
6	G308				1552		13																								
7	~~G310~~				~~1242~~		13																								
8	G312				1401		13																								
9	GJS 6-19-23																														
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1	Joseph R Rel	6/1/23	1935	Vanessa Wagner	6-2-23	700	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Joseph R Rel
SIGNATURE of SAMPLER: Joseph R Rel
DATE Signed (MM/DD/YY): 6/1/23

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

GF000908 gej

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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G210			6/5/23	1703		6	X	X	X		X																			
2	G216				1550		6	X	X	X		X																			
3	G211				1345		6	X	X	X		X																			
4	G276				1653		15	X	X	X		X																			
5	G273				1525		15	X	X	X		X																			
6	G307				1305		13	X	X	X																					
7	G307D				1420		13	X	X	X																					
8	G306				1543		13	X	X	X																					
9	G216 DUP				1550		6	X	X	X		X																			
10																															
11																															
12																															
13																															
14																															
15																															
16																															

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1		6/6/23	1725		6-6-23	1725	4.6	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jones, David

SIGNATURE of SAMPLER: [signature]

DATE Signed (MM/DD/YY): 6/6/23

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

GF00908

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	Y/N: Analysis Test	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G103			6/6/23	1301		7																								
2	G152				1043		5																								
3	G153				1220		5																								
4	G154				1345		6																								
5	G271				1116		15																								
6	G305				958		13																								
7	G405				1307		14																								
8	XPW01				1105		12																								
9	XPW02				1213		9																								
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1	Joseph Reed	6/6/23	1725	Van Wagner	6.6.23	1725	4.6	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Reed

SIGNATURE of SAMPLER: Joseph Reed DATE Signed (MM/DD/YY): 6/6/23

GF01285
vmw 6-7-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G315	WT	G	6/7/23	1002		13	X	X	X																					
2	G403	WT	G	6/7/23	1125		14	X	X	X		X																			
3	G404	WT	G	6/7/23	1251		14	X	X	X		X																			
4	L201	WT	G	6/7/23	1329		21	X	X	X	X	X	X																		
5	1001	WT	G	6/7/23	1024		13	X	X	X		X																			
6	G401	WT	G	6/7/23	~~1158~~ 1156	GJS 6/19/23	14	X	X	X		X																			
7	X201	WT	G	6/7/23	1236		12	X	X	X																					
8	G278	WT	G	6/7/23	1338		6	X	X	X		X																			
9	G208	WT	G	6/7/23	1352		6	X	X	X		X																			
10	G106	WT	G	6/7/23	1215		7	X	X	X		X																			
11	G126	WT	G	6/7/23	1100		4	X	X	X		X																			
12	G155	WT	G	6/7/23	1008		5	X	X	X		X																			
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	GJS SAMPLE CONDITIONS			
COF-23Q2 Rev 1		6/7/23	1701		6/7/23	1702	6-19-23			
					6-7-23	1702	4.1	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Kyle Lane
SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 6/7/23

GF01285
VMW 6-7-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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)	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G102	WT	G	6/6/23	1411		7	X	X	X		X																			
2	R104	WT	G	6/6/23	1519		7	X	X	X		X																			
3	G105	WT	G	6/6/23	1626		7	X	X	X		X																			
4	G301	WT	G	6/6/23	1638		13	X	X	X																					
5	G313	WT	G	6/6/23	1515		13	X	X	X																					
6	G313 DUP	WT	G	6/6/23	1515		13	X	X	X																					
7	G402	WT	G	6/6/23	1605		14	X	X	X		X																			
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1		6/7/23	1351		6/7/23	1351				
		6/7/23	1702	Vera Wagner	6-7-23	1702	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Kimberlen

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 06/06/23

GF01654
6-9-23 VMW

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 5 of 13

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

COFFEEN, IL
GMF GYPSUM STACK POND
COFFEEN POWER PLANT
845 QUARTERLY REPORTS - QUARTER 2, 2023
ATTACHMENT B.
8/9/23

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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G212			6/7/23	1535		15	X	X	X		X																			
2	G213				1649		15	X	X	X		X																			
3	G200				1723		15	X	X	X		X																			
4	R201				1540		15	X	X	X		X																			
5	EB-01				1755		15	X	X	X		X																			
6	G275			6/8/23	1200		15	X	X	X																					
7	G275 Dup				1200		15	X	X	X		X																			
8	G275D				1313		13	X	X	X																					
9	G280				0925		15	X	X	X		X																			
10	G283				1432		13	X	X	X																					
11	G285				1353		13	X	X	X																					
12	R205				1515		6	X	X	X		X																			
13	G281				1348		14	X	X	X		X																			
14	G272				1210		6	X	X	X		X																			
15	G274				1104		6	X	X	X		X																			
16	G270				0954		15	X	X	X		X																			

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1	James David	6/8/23	2055							
				Van Wojnn	6-9-23	650	4.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: James David

SIGNATURE of SAMPLER: James David

DATE Signed (MM/DD/YY): 6/8/23

GW9654
6-9-23 VMW

CHAIN-OF-CUSTODY / Analytical Request Document

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

GJS 6-14-23

Page: 12 of 13

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G284			6/8/23	1516		13	X	X	X																					
2	G217			1	1656		15	X	X	X		X																			
3	NE Riser				1720		12	X	X	X																					
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			
COF-23Q2 Rev 1	James David	6/8/23	2055							
				[signature]	6-9-23	650	4.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: James David

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 6/8/23

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

GFO1654
6-9-23 VMW

GJS 6-14-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 3 of 3

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G206	WT	G	6/9/23	1320		15	X	X	X		X																				
2	G206 Dup	WT	G	6/9/23	1320		15	X	X	X		X																				
3	G206 D	WT	G	6/9/23	1229		13	X	X	X																						
4	G207	WT	G	6/9/23	1034		6	X	X	X		X																				
5	G209	WT	G	6/9/23	0944		15	X	X	X		X																				
6	EB02	WT	G	6/9/23	1343		6	X	X	X		X																				
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1		6/9/23	1614							
					6-9-23	1614	3.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Haron Pemberton

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 06/09/23

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
G045D	COF_G045&D	X		AP2	102	5/30/23	1622	9.82					AP	TD 44.96
G046D	COF_G046&D	X		AP2	102	5/30/23	1447	14.54					AP	TD 55.19
G1001	COF_G1001		X	AP2	102						21615675			
G1003	COF_G1003	X		AP2	102	5/30/23	1538	10.97					AP	TD 11.23
G101	COF_G101	X		LF	105	5/30/23	1428	6.53					KL	
G102	COF_G102		X	LF	105						21615680			
G103	COF_G103		X	LF	105						21615689			
G105	COF_G105		X	LF	105						21615694			
G106	COF_G106		X	LF	105						21638030			
G107	COF_G107	X		LF	105	5/30/23	1422	10.85					KL	
G108	COF_G108	X		LF	105	5/30/23	1327	11.65					JD	
G109	COF_G109	X		LF	105	5/30/23	1330	11.89					JD	
G110	COF_G110	X		LF	105	5/30/23	1332	12.70					JD	
G111	COF_G111	X		LF	105	5/30/23	1622	13.70					JD	
G119	COF_G119	X		LF	105	5/30/23	1402	15.08					JD	
G120	COF_G120	X		LF	105	5/30/23	1405	14.86					JD	
G121	COF_G121	X		LF	105	5/30/23	1420	15.38					JD	

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
G122	COF_G122	X		LF	105	5/30/23	1427	14.00					JD	
G123	COF_G123	X		LF	105	5/30/23	1430	12.68					JD	
G124	COF_G124	X		LF	105	5/30/23	1434	13.43					JD	
G125	COF_G125	X		LF	105	5/30/23	1436	13.54					JD	
G126	COF_G126	X		LF	105	5/30/23	1349	10.04					JD	
G151	COF_G151	X		SWP	106	5/30/23	1352	11.58					JD	
G152	COF_G152	X		SWP	106	5/30/23	1443	11.11					JD	
G153	COF_G153	X		SWP	106	5/30/23	1452	11.40					JD	
G154	COF_G154	X		SWP	106	5/30/23	1456	13.15					JD	
G155	COF_G155	X		SWP	106	5/30/23	1459	12.44					JD	
G200	COF_G200		X	GSP	103						21615630			
G206	COF_G206		X	GSP	103						21629315			
G206D	COF_G206&D		X	GSP	103						21638031			
G207	COF_G207		X	GSP	103						21638029			
G208	COF_G208		X	GSP	103						21638037			
G209	COF_G209		X	GSP	103						21629318			
G210	COF_G210		X	GSP	103						21638036			

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
G211	COF_G211		X	GSP	103						21638040			
G212	COF_G212		X	GSP	103						21638035			
G213	COF_G213		X	GSP	103						21638033			
G214	COF_G214		X	GSP	103						21638039			
G215	COF_G215		X	GSP	103						21638034			
G216	COF_G216		X	GSP	103						21638038			
G217	COF_G217		X	GSP	103						21629316			
G218	COF_G218		X	GSP	103						21638032			
G270	COF_G270		X	RP	104						21615537			
G271	COF_G271		X	RP	104						21615558			
G272	COF_G272		X	RP	104						21615557			
G273	COF_G273		X	RP	104						21615564			
G274	COF_G274		X	RP	104						21629314			
G275	COF_G275	X		RP	104	5/30/23	1409	13.38					KL	Dry
G275D	COF_G275&D		X	RP	104						21638041			
G276	COF_G276		X	RP	104						21638043			
G277	COF_G277	X		RP	104	5/30/23	1404	18.21					KL	

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
G278	COF_G278	X		RP	104	5/30/23	1359	21.75					KL	TD 26.62
G279	COF_G279	X		RP	104	5/30/23	1352	22.73					KL	
G280	COF_G280		X	RP	104						21615563			
G281	COF_G281		X	RP	104						21629317			
G283	COF_G283		X	RP	104						21615528			
G284	COF_G284		X	RP	104						21638042			
G285	COF_G285		X	RP	104						21615521			
G286	COF_G286		X	RP	104						21615538			
G287	COF_G287		X	RP	104						21615534			
G288	COF_G288		X	RP	104						21615549			
G301	COF_G301		X	AP1	101						21615529			
G302	COF_G302		X	AP1	101						21615530			
G303	COF_G303		X	AP1	101						21615547			
G305	COF_G305		X	AP1	101						21615546			
G306	COF_G306		X	AP1	101						21615545			
G307	COF_G307		X	AP1	101						21615560			
G307D	COF_G307&D		X	AP1	101						21629305			

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
G308	COF_G308		X	AP1	101						21615638			
G309	COF_G309		X	AP1	101						21615559			
G310	COF_G310		X	AP1	101						21615562			
G311	COF_G311	X		AP1	101	5/30/23	1415	8.26					AP	
G311D	COF_G311&D	X		AP1	101	5/30/23	1417	23.26					AP	
G312	COF_G312		X	AP1	101						21615561			
G313	COF_G313		X	AP1	101						21615551			
G314	COF_G314		X	AP1	101						21615548			
G314D	COF_G314&D		X	AP1	101						21615526			
G315	COF_G315		X	AP1	101						21615543			
G316	COF_G316	X		AP1	101	5/30/23	1358	12.28					AP	
G317	COF_G317		X	AP1	101						21615531			
G401	COF_G401	X		AP2	102	5/30/23	1550	21.72					AP	
G402	COF_G402		X	AP2	102						21615532			
G403	COF_G403		X	AP2	102						21615120			
G404	COF_G404		X	AP2	102						21615119			
G405	COF_G405		X	AP2	102						21615498			

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
G406	COF_G406		X	AP2	102						21615123			
G407	COF_G407		X	AP2	102						21615122			
G410	COF_G410	X		AP2	102	5/30/23	1515	8.99					AP	
G411	COF_G411	X		AP2	102	5/30/23	1458	8.52					AP	
L201	COF_L201_leachate	X		LF	105	5/30/23	1611	3.28					JD	
L202	COF_L202_leachate	X		LF	105	5/30/23	1613	5.51					JD	
L203	COF_L203_leachate	X		LF	105	5/30/23	1617	5.73					JD	
MW03D	COF_MW03&D		X	GSP	103						21629304			
MW04S	COF_MW04#S	X		North	000	5/30/23	1558	6.63					JR	
MW05S	COF_MW05#S	X		North	000	5/30/23	1552	2.25					JR	
MW05D	COF_MW05&D	X		North	000	5/30/23	1550	18.29					JR	
MW06S	COF_MW06#S	X		North	000	5/30/23	1451	6.45					JR	
MW07S	COF_MW07#S	X		North	000	5/30/23	1544	5.23					JR	
MW09S	COF_MW09#S	X		North	000	5/30/23	15,02	5.45					JR	
MW09D	COF_MW09&D	X		North	000	5/30/23	1500	13.91					JR	
MW10S	COF_MW10#S	X		North	000	5/30/23	1343	5.44					JR	
MW10D	COF_MW10&D	X		North	000	5/30/23	1341	15.73					JR	

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
MW11S	COF_MW11#S		X	GSP	103						21615553			
MW11D	COF_MW11&D		X	GSP	103						21629307			
MW12S	COF_MW12#S	X		GSP	103	5/30/23	1544	7.36					KL	TD 18.54
MW12D	COF_MW12&D		X	GSP	103						21629310			
MW13S	COF_MW13#S	X		SWP	106	5/30/23	1445	10.19					JD	TD 19.39
MW13D	COF_MW13&D	X		SWP	106	5/30/23	1446	13.52					JD	TD 53.32
MW16S	COF_MW16#S		X	GSP	103						21615550			
MW16D	COF_MW16&D		X	GSP	103						21629306			
MW17S	COF_MW17#S	X		North	000	5/30/23	1404	6.41					JR	
MW17D	COF_MW17&D	X		North	000	5/30/23	1402	13.33					JR	
MW20S	COF_MW20#S		X	RP	104						21615518			
R104	COF_R104		X	LF	105						21615124			
R201	COF_R201		X	GSP	103						21615118			
R205	COF_R205		X	GSP	103						21615633			
T127	COF_T127	X		LF	105	5/30/23	1356	14.56					JD	
T128	COF_T128	X		LF	105	5/30/23	1354	14.26					JD	
T202	COF_T202	X		GSP	103	5/30/23	1510	5.80					JD	

SAR-3: Depth to Groundwater Measurements
Plant: COF
Event: COF-23Q2 Rev 1

Well	Unique ID	Episodic	Transducer	Unit Name	Unit Number	Date	Time	Measured Depth to Water (ft bmp)	Transducer				Initials	Notes
									WL from HOBOconnect (ft)	Downloaded Y/N	Data Logger Serial No.	Batt (H/M/L)		Start note with relevant well ID
T408	COF_T408	X		AP2	102	5/30/23	1618	7.42					AP	TD 28.85
T409	COF_T409	X		AP2	102	5/30/23	1442	11.27					AP	TD 30.06
TA31	COF_TA31	X		LF	105	5/30/23	1431	7.06					AL	TD 22.75
TA33	COF_TA33	X		LF	105	5/30/23	1430	8.42					JQ	
TA34	COF_TA34	X		LF	105	5/30/23	1410	9.48					JD	TD 18.70
TR32	COF_TR32	X		LF	105	5/30/23	1440	6.18					JQ	
X201	COF_X201_leachate		X	RP	104						21024091			
XPW01	COF_XPW01_pore		X	AP1	101						21615536			
XPW02	COF_XPW02_pore		X	AP1	101						21615507			
NE Riser	COF_XRISER_NE_leachate		X	GSP	103						21048333			
XSG-01	COF_XSG-01	X		AP1	101	5/30/23	1432	5.45					AP	
SG-02	COF_YSG02	X		AP1	101	5/30/23	1525	7.47					AP	
SG-03	COF_YSG03	X		AP1	101	5/30/23	1347	9.85					AP	
SG-04	COF_YSG04	X		AP2	102	5/30/23	1612	6.41					AP	

[U:GKJ 5/3/23]

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G102 **Purge Method:** Dedicated pump

Date: 6-6-23 Start Time: 13:15 Finish/Sample Time: 14:11

Well Depth (Bottom) From MP: **20.36** ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 07.39 ft Total Purge Volume: 1.8 Gal / L

Total Drawdown: 0.52 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	13:32	7.66	100	7.13	671	23.54	177	0.96	255
2	13:33	7.58	100	7.12	678	23.44	176	0.88	241
3	13:34	7.61	100	7.12	682	23.32	176	0.85	236
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBa

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☑ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☑ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250 mL~~) 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P,~~500mL~~) 1000mL

Comments FD → 7.91

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G103 **Purge Method:** Dedicated Pump

Date: 6-6-23 Start Time: 11:50 Finish/Sample Time: 13:01

Well Depth (Bottom) From MP: 23.97 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 10.88 ft Total Purge Volume: ~~2~~ 1.8 Gal / L

Total Drawdown: 2.09 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	12:13	12.94	100	6.76	825	16.66	118	1.78	0
2	12:14	12.92	100	6.78	825	16.59	119	1.73	1.2
3	12:15	12.94	100	6.79	826	16.47	124	1.65	0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Comments FD → 12.97

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT R104 **Purge Method:** Dedicated PUMP

Date: 6-6-23 Start Time: 14:18 Finish/Sample Time: ~~13:~~ KL 15:19

Well Depth (Bottom) From MP: 22.95 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 08.44 ft Total Purge Volume: 1.8 Gal / L

Total Drawdown: 5.93 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	14:37	11.01	100	7.27	783	18.15	183	1.05	0
2	14:38	11.09	100	7.26	785	18.01	183	0.95	0
3	14:39	11.18	100	7.26	779	18.10	184	0.90	0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250 mL~~) 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL

Comments FD — 14.37

Sampler's Signature: [signature]

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G105 **Purge Method:** Dedicated Pump

Date: 6-6-23 Start Time: 15:25 Finish/Sample Time: 16:26

Well Depth (Bottom) From MP: 24.33 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 09.17 ft Total Purge Volume: 1.8 Gal / L

Total Drawdown: 2.03 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	~~15:30~~ 15:45	10.07	100	7.09	840	18.51	-193	1.27	0
2	15:46	10.11	100	7.10	835	18.46	-194	1.26	0
3	15:47	10.15	100	7.10	830	18.60	-195	1.18	0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Comments FD — 11.20

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G106 **Purge Method:** Dedicated Pump

Date: 6-7-23 Start Time: 11:12 Finish/Sample Time: 12:15

Well Depth (Bottom) From MP: 22.36 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 10.44 ft Total Purge Volume: 1.8 Gal / L

Total Drawdown: 6.21 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	11:32	12.75	100	6.85	1,030	17.06	172	1.40	26.7
2	11:33	12.85	100	6.85	1,020	17.20	169	1.31	26.3
3	11:34	12.97	100	6.84	1,010	17.11	167	1.19	21.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Comments FD → 16.65

Sampler's Signature: [signature]

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G200 **Purge Method:** Portable pump with dedicated Tubing

Date: 6/7/2023 Start Time: 1550 Finish/Sample Time: ~~1523~~ 1723

App 6/7/23

Well Depth (Bottom) From MP: 20.20 ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 6.35 ft Total Purge Volume: 1500 Gal / L (mv)

Total Drawdown: -0.39 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1615	6.57	100	7.15	905	25.31	20	1.40	734
2	1617	6.56	100	7.13	910	25.39	23	1.36	>1000
3	1619	6.56	100	7.11	913	25.39	26	1.33	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor:	☐ None	☒ Slight	☐ Mod.	☐ Strong
Color	☐ None	☐ Slight	☒ Mod.	☐ Strong
Turb:	☐ None	☐ Slight	☐ Mod	☒ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	✗
Good seal/drainage	✓	
Well has weep holes	✓	

App 6/7/23

BOTTLE INFORMATION:

Unfiltered		(15)
Qty	Bottles	
	VOAs (C,V, 40mL, HCL)	
	VOAS (C,V, 40mL)	
	Organics (A,G,U 1000mL)	
	Organics (A,G,U 500mL)	
3	TOC (A,V 40mL, H2SO4)	
	TOX (A,G 250mL, H2SO4)	
1	Metals (P,250mL, HNO3)	
1	Cyanide (P, 250mL, NaOH)	
1	Phenols (A,G,250mL, H2SO4)	
1	General (P, ~~250 mL~~) 1000mL	
1	Ammonia (P, 250mL, H2SO4)	
1	(P, 2.5L, HNO3)	

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL
3	TOC (A,V, 40mL, H2SO4)

Final DTW 5.96 RL

Comments · Transducer S/N 21615630 diss Iron^{+2} - 0.243 ppm
Unable to use Dedicated Bladder due to check valve issues
lots of sediment

Sampler's Signature: _____

Coffeen

WELL/SAMPLE POINT R201

Purge Method: Portable pump with Desiccated Tubing

Date: 6/7/2023 Start Time: 1412 Finish/Sample Time: 1540

Well Depth (Bottom) From MP: 19.80 ft

Min. Purge Volume: ______ Gal / L

Depth to Water From MP: 6.18 ft

Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: -0.44 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1432	7.25	100	7.37	1480	19.06	-126	2.53	13.8
2	1434	7.25	100	7.33	1450	18.97	-124	2.48	14.8
3	1436	7.25	100	7.29	1430	18.99	-123	2.43	14.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

(LS)

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250~~ mL) 500mL
1	Ammonia (P, 250 mL, H2SO4)
1	(P, 2.5 L, HNO3)

Filtered	
Qty	**Bottles**
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL
3	TOC (A, V, 40mL, H2SO4)

Final DTW - 5.74

Comments Transducer S/N 2161S118 diss Iron+2 - 3.924 ppm
Ants in well. Air line in Desiccated Bladder, Busted, had to use Portable pump

Sampler's Signature: [signature]

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT R205 1400 **Purge Method:** Dedicated Pump

Date: ~~6-7-23~~ 6-8-23 Start Time: ~~12:25~~ Finish/Sample Time: 1515

Well Depth (Bottom) From MP: 17.19 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 7.09 ft Total Purge Volume: ~~1.8~~ Gal / L 1500 mL

Total Drawdown: 0.50 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1434	7.45	100	6.92	1310	21.77	115	3.77	71000
2	1436	7.45	100	6.87	1350	21.63	112	3.69	71000
3	1438	7.45	100	6.87	1310	21.60	111	3.63	71000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☒ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	X
Good seal/drainage	✓	
Well has weep holes	✓	

MP 6/8/23

BOTTLE INFORMATION:

Unfiltered Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250~~ mL) 1000mL

6

Filtered Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,~~500mL~~) 1000mL

MP 6/8/23

Final DTW 7.59

Comments → Transducer ~~SAL~~ would not work even after changing batteries

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G206 **Purge Method:** Dedicated Bladder pump

Date: 6/9/2023 Start Time: 1047 Finish/Sample Time: 1320

Well Depth (Bottom) From MP: 24.84 ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 12.10 ft Total Purge Volume: 1500 Gal / L mL

Total Drawdown: 0.85 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1105	13.62	100	7.06	916	18.26	-231	1.35	0.0
2	1109	13.62	100	7.06	914	18.20	-230	1.35	0.0
3	1109	13.62	100	7.08	910	18.27	-232	1.26	0.0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☒ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3+3 FD	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1+1 FD	Metals (P,250mL, HNO3)
1+1 FD	Cyanide (P, 250mL, NaOH)
1+1 FD	Phenols (A,G,250mL, H2SO4)
1+1 FD	General (P, ~~250mL~~) 1000mL
1+1 FD	Ammonia (P,250mL, H2SO4)
1+1 FD	(P, 2.5L, HNO3)

(15+15 H_2SO_4)

Filtered Qty	Filtered Bottles
1+1 FD	Metals (P,250mL, HNO3)
1+1 FD	Ammonia (P,250mL, H2S04)
1+1 FD	General (P, ~~500mL~~) 1000 mL
3+3 FD	TOC (A, V, 40mL, H2SO4)

Final DTW 12.95 FL

Comments Transducer S/N 21629315 diss $Iron^{+2}$ -0.986 ppm

Arks in Well Field DUP Filled here Sampled at same time as G206 D alternating between purge and filling large Bottles

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G206D **Purge Method:** Dedicated Bladder Pump

Date: 6/9/2023 Start Time: 1055 Finish/Sample Time: 1229

Well Depth (Bottom) From MP: _____ ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 30.16 ft Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: 3.54 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1119	32.15	100	7.22	1140	18.11	-193	0.91	19.7
2	1121	32.23	100	7.22	1140	18.08	-194	0.88	18.7
3	1123	32.23	100	7.21	1150	18.07	-194	0.85	17.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☒ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
	Cyanide (P, 250mL, NaOH)
	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250mL~~) 1000mL
1	Ammonia (P, 250mL, H2SO4)
1	(P, 250mL, HNO3)

13

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P,~~500mL~~) 1000mL
3	TOC (A, V, 40mL, H2SO4)

final DTW 33.70ft

Comments Transducer S/N 216380311 diss Iron^{+2} - 3.037 ppm
sample at same time as G206 during well purging and filling of purge bottles

Sampler's Signature: _____

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G207 **Purge Method:** portable pump with Dedicated Tubing ✓

Date: 6/19/2023 Start Time: 0950 Finish/Sample Time: 1034

Well Depth (Bottom) From MP: ~~22.87~~ ft 22.84 Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 12.60 ft Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: _____ ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1008	14.69	100	7.25	655	22.54	10	2.45	5.0
2	1010	14.69	100	7.22	655	22.57	11	2.35	4.5
3	1012	14.69	100	7.21	657	22.60	12	2.31	4.6
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: 14.69

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250 mL~~) 1000 mL

(6)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL

Comments Transducer S/N 21678029

Sampler's Signature: _____

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G208 **Purge Method:** Dedicated Pump

Date: 6-7-23 Start Time: 12:53 Finish/Sample Time: 13:52

Well Depth (Bottom) From MP: 25.35 ft Min. Purge Volume: 1.5 Gal / L

Depth to Water From MP: 12.13 ft Total Purge Volume: 1.8 Gal / L

Total Drawdown: 3.73 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	13:12	15.10	100	7.26	540	16.44	171	1.14	0
2	13:13	15.13	100	7.26	540	16.46	170	1.09	0
3	13:14	15.18	100	7.27	538	16.41	170	1.04	0
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: HoriBa

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, 250 mL)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,500mL)

Comments FD → 15.86

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G209 **Purge Method:** Dedicated Bladder pump

Date: 6/01/2023 Start Time: 0813 Finish/Sample Time: 0944

Well Depth (Bottom) From MP: 25.26 ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 12.03 ft Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: 0.50 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	0834	13.00	100	7.01	1300	16.10	-29	7.31	2.5
2	0836	13.00	100	7.01	1290	16.05	-29	7.25	2.6
3	0838	13.00	100	7.02	1290	16.07	-33	7.18	2.2
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☒ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☒ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.		X
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

(15)

Unfiltered Qty	Unfiltered Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250mL~~) 1000mL
1	Ammonia (P,250mL, H2SO4)
1	(P,2.5L, HNO3)

Filtered Qty	Filtered Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL
3	TOC (A,V, 40mL, H2SO4)

Final DTW-12.53 AL

Comments Transducer S/N 216293K diss Iron ^{FE} - 1.122 ppm

Sampler's Signature: _____

Coffeen

WELL/SAMPLE POINT G210 **Purge Method:** Dedicated Bladder pump

Date: 6/5/2023 Start Time: 1603 Finish/Sample Time: 1703

Well Depth (Bottom) From MP: **26.92** ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 11.75 ft Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: 0.50 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1624	12.25	100	7.12	965	18.98	119	1.90	17.9
2	1626	12.24	100	7.11	969	18.95	117	1.88	16.5
3	1628	12.27	100	7.10	971	18.93	114	1.84	18.2
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.		X
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250~~ mL) 1000mL

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P, ~~500~~mL) 1001mL

Final DTW 12.25

Comments Transducer S/N 21638036

Sampler's Signature: _____

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G211 **Purge Method:** Dedicated Bladder pump

Date: ~~6/6/23~~ 6/5/2023 (AAP 6/5/23) Start Time: 1239 Finish/Sample Time: 1345

Well Depth (Bottom) From MP: 25.07 ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 11.37 ft Total Purge Volume: 1500 Gal / L (m2)

Total Drawdown: 6.93 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1309	12.20	100	6.95	843	16.23	220	0.95	324
2	1311	12.26	100	6.96	842	16.17	220	0.87	286
3	1313	12.29	100	6.96	846	16.17	218	0.90	256
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250 mL~~) 1000 mL

(6)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL

Final DTW 12.30

Comments Transducer S/N 21638040

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G212 **Purge Method:** Dedicated pump

Date: 6/7/23 Start Time: 1413 Finish/Sample Time: 1535

Well Depth (Bottom) From MP: 24.33 ft Min. Purge Volume: 1500 Gal / L (mL)

Depth to Water From MP: 12.51 ft Total Purge Volume: 2000 Gal / L (mL)

Total Drawdown: _____ ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1428	13.36	100	7.21	727.65	16.43	110.1	1.62	10.08
2	1429	13.36	100	7.21	671.34	16.41	109.9	1.62	10.31
3	1430	13.37	100	7.21	727.62	16.39	110.4	1.61	9.07
4	1431	13.37	100	7.20	726.19	16.40	110.5	1.60	8.52
5	1432	13.38	100	7.20	722.11	16.42	110.2	1.60	8.79
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.		✓
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250mL~~) 1000mL JMG 6/7
1	Ammonia
1	P 2.5L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General P 1000mL
3	TOC
0.116 Ppm	Soluble Iron +2

Final DTW = 12.91

Comments

Sampler's Signature: [signature]

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G213 **Purge Method:** Dedicated pump

Date: 6/7/23 Start Time: 1539 Finish/Sample Time: 1649

Well Depth (Bottom) From MP: **22.44** ft Min. Purge Volume: 1500 Gal / L (mL)

Depth to Water From MP: 12.87 ft Total Purge Volume: 1800 Gal / L (mL)

Total Drawdown: 0.78 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1544	13.40	100	7.21	680.96	17.58	-8.5	1.61	65.95
2	1545	13.40	100	7.21	683.83	17.60	-4.8	1.58	62.59
3	1547	13.41	100	7.21	685.93	17.63	-1.5	1.57	66.90
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Aquatroll 600

Sample Appearance:

Odor: ☑ None ☐ Slight ☐ Mod. ☐ Strong

Color ☑ None ☐ Slight ☐ Mod. ☐ Strong

Turb: ☑ None ☐ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250mL~~) 1000mL SMD6/7
1	Ammonia
1	P 2.5L HNO3

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
	General (P,500mL)
1	General P 1000mL
3	TOC
0.073 ppm	Soluble Iron +2

Final DTW = 13.65

Comments

Sampler's Signature:

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G214 **Purge Method:** Desicated pump

Date: 6/1/2023 Start Time: 1135 Finish/Sample Time: 1300

Well Depth (Bottom) From MP: 25.30 ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 15.12 ft Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: 0.60 ft

Apr 6/1/23 995

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1215	15.88	100	7.24	~~2030~~	20.30	196	3.47	45.7
2	1217	15.88	100	7.23	978	20.23	196	3.34	36.4
3	1219	15.90	100	7.23	982	20.29	193	3.29	33.3
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250mL~~) 1000mL

(6)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1	General (P,~~500mL~~) 1000mL

Final DTW 15.12

Comments Transducer S/N 21638039 Iron - 0.224 ppm

Sampler's Signature: _____

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G215 **Purge Method:** Dedicated Pump

Date: 6/1/2023 Start Time: 1334 Finish/Sample Time: 1532

Well Depth (Bottom) From MP: 26.88 ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 15.05 ft Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: 0.16 ft

App 6/1/23

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1358	15.42	100	7.04	1820	20.90	-15	2.54	254
2	~~13~~ 1400	15.42	100	7.00	1880	20.85	-14	2.59	224
3	1402	15.42	100	7.02	1830	20.92	-16	2.63	218
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☑ Slight ☐ Mod. ☐ Strong

Color ☐ None ☐ Slight ☑ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☑ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

(15)

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250 mL~~) 1000 mL
1	Ammonia (P 250mL H2SO4)
1	CP 250mL, HNO3)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL
3	Toc CA, V, 40mL, H2SO4)

Final OTW 15.15

Comments Transducer S/N 21638034 Iron - 0.917 ppm

Sampler's Signature: _____

Coffeen

WELL/SAMPLE POINT G216 **Purge Method:** Dedicated Bladder

Date: 6/5/2023 Start Time: 1355 Finish/Sample Time: 1550

Well Depth (Bottom) From MP: 27.52 ft Min. Purge Volume: ____ Gal / L

Depth to Water From MP: 14.60 ft Total Purge Volume: 1500 Gal / L (circled: L)

Total Drawdown: 0.65 ft

Reading (Units)	Time	Depth (ft.)	Flow Rate (mL/min)	pH (s.u.)	Spec Cond (umhos/cm)	Temp (deg C)	ORP (mV)	DO (mg/L)	Turb (NTU)
1	1441	15.10	100	6.86	2140	24.02	-130	0.80	>1000
2	1443	15.10	100	6.84	2140	23.98	-131	0.76	>1000
3	1445	15.10	100	6.81	2220	23.95	-131	0.73	>1000
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☐ None ☐ Slight ☐ Mod. ☑ Strong

Color ☐ None ☐ Slight ☐ Mod. ☒ Strong

Turb: ☐ None ☐ Slight ☐ Mod ☒ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	**Bottles**
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1+1 FD	Metals (P,250mL, HNO3)
1+1 FD	Cyanide (P, 250mL, NaOH)
1+FD	Phenols (A,G,250mL, H2SO4)
1+1 FD	General (P, ~~250 mL~~) 1000mL

(circled: 6+6)

Filtered	
Qty	**Bottles**
1+1 FD	Metals (P,250mL, HNO3)
	Ammonia (P,250mL, H2S04)
1+1 FD	General (P,~~500mL~~) 1000mL

Final DTW 15.25

Comments Transducer - S/N 21638038
Field Dup filled here Andy Irwin

Sampler's Signature: [signature]

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G217 **Purge Method:** Dedicated pump

Date: 6/8/2023 (6/7/2023) **Start Time:** 1530 (1535) **Finish/Sample Time:** ~~1556~~ 1656

AM 6/8/23

Well Depth (Bottom) From MP: **27.74** ft **Min. Purge Volume:** _____ Gal / L

Depth to Water From MP: 16.35 ft **Total Purge Volume:** 1500 Gal / L ML

Total Drawdown: 0.35 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1548	16.75	100	6.82	1480	19.60	9	2.44	72.3
2	1550	16.75	100	6.77	1480	19.58	4	2.35	68.7
3	1552	16.75	100	6.74	1490	19.55	2	2.30	61.5
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☒ Slight ☐ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250mL~~ 1000mL)
1	Ammonia (P,250mL, H2SO4)
1	(P,250L, HNO3)

(15)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P,500mL) 1000mL
3	TOC (A,V, 40mL, H2SO4)

Final DTW 16.70 AL

Comments Transducer S/N 21629316 diss Iron = 0.439 ppm

Sampler's Signature: _____

616.75

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Coffeen

WELL/SAMPLE POINT G218 **Purge Method:** Desicrate & Pump

Date: 6/1/2023 Start Time: 0932 Finish/Sample Time: 1112

Well Depth (Bottom) From MP: 26.79 ft Min. Purge Volume: _____ Gal / L

Depth to Water From MP: 14.30 ft Total Purge Volume: 1500 Gal / L (mL)

Total Drawdown: 0.15 ft

Reading	Time	Depth	Flow Rate	pH	Spec Cond	Temp	ORP	DO	Turb
(Units)		(ft.)	(mL/min)	(s.u.)	(umhos/cm)	(deg C)	(mV)	(mg/L)	(NTU)
1	1002	14.70	100	7.19	1470	19.88	-19	1.83	121
2	1004	14.70	100	7.18	1480	19.82	-23	1.79	110
3	1006	14.70	100	7.16	1480	19.83	-27	1.76	99.1
4									
5									
Stabilization	NA	NA	NA	± 0.2	± 3%	± 0.2	± 20	± 10% or 0.2	NA

Field Meter: Horiba

Sample Appearance:

Odor: ☒ None ☐ Slight ☐ Mod. ☐ Strong

Color ☐ None ☒ Slight ☐ Mod. ☐ Strong

Turb: ☐ None ☐ Slight ☒ Mod ☐ Strong

Well Integrity	Yes	No
Well has ID sign	✓	
Casing locked/secure	✓	
Well cap fits securely.	✓	
Good seal/drainage	✓	
Well has weep holes	✓	

BOTTLE INFORMATION:

Unfiltered	
Qty	Bottles
	VOAs (C,V, 40mL, HCL)
	VOAS (C,V, 40mL)
	Organics (A,G,U 1000mL)
	Organics (A,G,U 500mL)
3	TOC (A,V 40mL, H2SO4)
	TOX (A,G 250mL, H2SO4)
1	Metals (P,250mL, HNO3)
1	Cyanide (P, 250mL, NaOH)
1	Phenols (A,G,250mL, H2SO4)
1	General (P, ~~250~~mL) 1000mL
1	Ammonia (P,250mL, H2SO4)
1	(P, 2.5L, HNO3)

(15)

Filtered	
Qty	Bottles
1	Metals (P,250mL, HNO3)
1	Ammonia (P,250mL, H2S04)
1	General (P, ~~500mL~~) 1000mL
3	TOC (A,V, 40mL, H2SO4)

Final DTW 14.45

Comments Transducer S/N 21638032 dissIron Fe 1.213 ppm

Sampler's Signature: _____

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Kyle Lam	Location:	Coffeen Power
Weather:	85° Sunny	Environment:	Dry

Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	YL9KJ9HA	
Water Level Meter	Make: Heron	Model: water tape	Serial Number:	19FF2202/31ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	Na	Na	MSI	L344-09	12/14/2023
pH 7.00a	6.98	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.96	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	20.50	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1960	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	225	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

2G1R08L4 Exp. Nov 23 Lot 7118

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 11:40

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	Na	Geotech	2GE870	Mar-24
pH 7.00b	7.06	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.88	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	980	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: Na

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 16:24

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	3.94	s.u.	±0.1 s.u.	P	Na	Na	MSI	L344-09	12/14/2023
7.00a	6.94	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a	10.06	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.01	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: Na

Signature: [signature] Date: 6-1-2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Coffeen
Weather:	77°-86°F sunny wind SE at 1 kmph	Environment:	grassy

Multiparameter Water Meter	Make:	Horiba	Model:	U5000	Serial Number:	PW2GLJDJ
Water Level Meter	Make:	Heron	Model:	Dipper-T	Serial Number:	3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.98	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	13	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	214	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	97.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

2G10886 Exp Nov 23
2u 7/18

Approx. every 4 hrs, unless only one well

229 @ 25°C

ICV (Initial Calibration Verification) Time: 0855

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.95	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24
pH 7.00b	6.90	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.08	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1030	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1600

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.08	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	967	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	6/1/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Vistra Coffeen
Weather:	72-88°F mostly sunny wind SE 8 mph	Environment:	grass

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 762215		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305ML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.08	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	12.11	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2054.1	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	219.7	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.15	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

JAD 6/1

Lot # 2GK0R6 Exp. Nov/23

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0812

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.09	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.98	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.93	s.u.	±0.15 s.u.			Geotech,	2GE820	May-24
SC 1000	1038.0	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1618

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.18	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.09	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1044.1	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	JD	Date:	6/1/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Joe Reed	Location:	Coffeen Power
Weather:	72-88°F mostly sunny 8mph wind	Environment:	grass / gravel
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number: U4U1FVTF
Water Level Meter	Make:	Model:	Serial Number:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	.1	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	221	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.05	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.7	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

2GK0820 NOV 23 JW 7/13

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 833

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.99	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	Mar-24
pH 7.00b	6.99	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.00	s.u.	±0.15 s.u.			Geotech,	2GE820	May-24
SC 1000	990	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1000	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: Joseph R Reed — Date: 6/1/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Coffeen
Weather:	81°-83° F Sunny Wind NE 10mph	Environment:	Grass, gravel, dirt
Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW26Y503
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech 3GA ~~2GE1442~~	~~May 23~~ Jan 24	
ORP	222	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	~~MK: 0.09~~	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

230 @ 21°C

ICV (Initial Calibration Verification)					Time: 1150			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.90	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.03	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1018	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1721			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	P	NO	NA	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.94	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1010	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:			
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	6/5/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	SD	Location:	Vistra Coffeen
Weather:	81-85°F Hazy sunny wind NE 10 mph	Environment:	grass

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Diver-T	Serial Number:	11FF2209305 ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.09	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	10.66	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2072.1	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	223.9	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.07	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.78	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

JNO 6/5
Lot# 2GK086
Exp NOV/23

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 1131			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.09	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.96	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.97	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1025.1	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time: 1701				
Buffer JNO 6/5	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	~~4.10~~	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.10	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.05	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1037.1	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.08	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	6/5/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Jon Reed	Location:	Coffeen Power
Weather:	65-86°F Sunny Wind 3-6m/h	Environment:	Gravel Road

Multiparameter Water Meter	Make: Horiba	Model: U 5000	Serial Number:	YL9KJ9HA	
Water Level Meter	Make: Solinst	Model: 101	Serial Number:	33459	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~ 2GK0586 Nov 23
ORP	230	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.2	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

24.14°C

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)					Time: 850			
Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N	Geotech	2GE870	Mar-24
pH 7.00b	7.02	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.98	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1010	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	N		MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.00	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1020	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):					Time:				
Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	Joseph R Reed	Date:	6/6/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Kyle Lane	Location:	Coffeen Power
Weather:	64° to 86° Sunny	Environment:	Dry
Multiparameter Water Meter	Make: Horiba	Model: U-52	Serial Number: V4V1FVTF
Water Level Meter	Make: Heron	Model: Water tape	Serial Number: 19FF220213IML

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.95	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.96	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	18.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2030	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	264	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.60	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

2GK0860 NOV. 23 CW 7/13

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 10:57

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24
pH 7.00b	7.04	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.99	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1000	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: N/A

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 16:53

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	4.07	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L344-09	12/14/2023
7.00a	6.98	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a	9.94	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1,016	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.05	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	6-6-23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Vistra Coffeen
Weather:	70-87°F mostly sunny wind N 5mph	Environment:	grass, reeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 762215		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF220930SML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	7.08	s.u.	±0.1 s.u.	pass	Yes	4.00	MSI	L344-09	12/14/2023
pH 7.00a	7.11	s.u.	±0.1 s.u.	fail	Yes	7.01	MSI	L343-07	12/9/2023
pH 10.00a	10.12	s.u.	±0.1 s.u.	fail	Yes	10.02	MSI	M082-04	3/25/2024
SC Zero (DI)	9.91	µS/cm	0<25 µS/cm	pass	No	NA	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2046.9	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	224.7	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.55	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

3rd cal
Lot # 2GK086
Exp. Nov/23

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0825

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.86	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.86	s.u.	±0.15 s.u.			Geotech,	2GE820	May-24
SC 1000	1031.0	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1614

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.09	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.01	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1043.5	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.10	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.21	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	6/6/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Coffeen
Weather:	73°, 86% Sunny Wind NW 5 mph	Environment:	grass, gravel, dirt

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number: PW2624603		
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-T		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.94	s.u.	±0.1 s.u.	P	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.06	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1960	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	229	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	100.0	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

2GL0860 Nov 23 OK TH7

Approx. every 4 hrs, unless only one well

237 @ 19°C

ICV (Initial Calibration Verification) Time: 0900

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.00	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.95	s.u.	±0.15 s.u.			Geotech,	2GE820	May-24
SC 1000	980	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1648

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.08	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	984	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.04	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	6/6/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Kyle Lorne		Location:	Coffeen Power	
Weather:	81° cloudy		Environment:	Dry	
Multiparameter Water Meter	Make: Horiba	Model: U-5000	Serial Number:	V4VIFVTF	
Water Level Meter	Make: Heron	Model: water tape	Serial Number:	19FF22021 3|ML-	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.92	s.u.	±0.1 s.u.	↓	↓	↓	MSI	L343-07	12/9/2023
pH 10.00a	9.99	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	19.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	1970	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	214	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.20	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

2GE820 Nov. 23 (LH) 7/17

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) Time: 08:30

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.01	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24
pH 7.00b	7.00	s.u.	±0.15 s.u.	↓	↓	Geotech	2GC931	Mar-24
pH 10.00b	9.87	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	980	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: N/A

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
pH 7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 14:06

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a	3.99	s.u.	±0.1 s.u.	P	N/A	N/A	MSI	L344-09	12/14/2023
7.00a	6.97	s.u.	±0.1 s.u.	↓	↓	↓	MSI	L343-07	12/9/2023
10.00a	9.98	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1,030	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.06	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments: N/A

Signature: [signature] Date: 6-7-2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Vistra Coffeen
Weather:	66-78° F cloudy wind NE 8mph	Environment:	grass, reeds

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number: 762215		
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number: 11FF2209305ML		

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.01	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.00	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.98	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	9.72	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2036.4	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	226.1	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	98.09	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

SMO 6/7

Lot # 2GK086 Exp. Nov/23

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification) — Time: 0825

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.04	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.90	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.86	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	992.0	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1722

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.04	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1026.9	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	6/7/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Coffeen
Weather:	69°- 79°F Cloudy Wind NE 5mph	Environment:	grass, dirt

Multiparameter Water Meter	Make: Horiba	Model:	U5000	Serial Number:	PW2GYJD3
Water Level Meter	Make: Heron	Model:	Dipper-T	Serial Number:	3717-7

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	3.91	s.u.	±0.1 s.u.	P	NO	–	MSI	L344-09	12/14/2023
pH 7.00a	7.68	s.u.	±0.1 s.u.	F	yes	7.00	MSI	L343-07	12/9/2023
pH 10.00a	10.04	s.u.	±0.1 s.u.	P	No	–	MSI	M082-04	3/25/2024
SC Zero (DI)	0.0	µS/cm	0<25 µS/cm	P	No	–	Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%	P	No	–	Geotech	~~2GE1442~~ 2GKD86	~~May-23~~ Nov. 23
ORP	220	mV	±15 mV	P	No	–	InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1	P	No	–	Macron	#000228049	8/26/2025
DO (Saturated)	99.3	%	97-100%	P	No	–	Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	1.3	NTU	<2 NTU	P	No	–	Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

230 @ 24°C

ICV (Initial Calibration Verification) — Time: 0840

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	P	–	Geotech	2GE870	Mar-24
pH 7.00b	7.08	s.u.	±0.15 s.u.	P	–	Geotech	2GC931	Mar-24
pH 10.00b	10.10	s.u.	±0.15 s.u.	P	–	Geotech	2GE820	May-24
SC 1000	989	µS/cm	±5%	P	–	Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: ~~1530~~ 1730

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.06	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	7.07	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.09	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1030	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature: [signature] Date: 6/7/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	JD	Location:	Vistra Coffeen
Weather:	59-78° F hazy sun wind NNE 8 mph	Environment:	grass

Multiparameter Water Meter	Make: Aquatroll	Model: 600	Serial Number:	762215	
Water Level Meter	Make: Heron	Model: Dipper-T	Serial Number:	11FF2209305ML	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.02	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	4.34	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2033.8	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	230.7	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.08	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	99.39	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.00	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Lot # 2GK086 Exp. Nov/23 SMD 6/8

Approx. every 4 hrs, unless only one well

ICV (Initial Calibration Verification)

Time: 0748

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	4.02	s.u.	±0.15 s.u.	pass	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.89	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	9.87	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1028.9	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time: 1635

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.04	s.u.	±0.1 s.u.	pass	No	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.05	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.04	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	1037.6	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.10	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.34	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification):

Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	JD	Date:	6/8/23

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Pemberton	Location:	Coffeen
Weather:	58°-78° Sunny Wind NE at 6mph	Environment:	grass/dirt

Multiparameter Water Meter	Make: Horiba	Model: U5000	Serial Number:	PJ26YJD3	
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number:	37 17. T	

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.00	s.u.	±0.1 s.u.	P	NO	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.01	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.03	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2000	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~
ORP	232	mV	±15 mV				InSitu	2G1762	Jun-23
DO (Zero pt)	0.09	mg/L	±0.1				Macron	#000228049	8/26/2025
DO (Saturated)	NA	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

2GK08L Nov. 23 KP 7/13

Approx. every 4 hrs, unless only one well

242 @ 15°C

ICV (Initial Calibration Verification) Time: 0800

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.98	s.u.	±0.15 s.u.	P	NA	Geotech	2GE870	Mar-24
pH 7.00b	6.96	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.00	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	993	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time: 1734

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.07	s.u.	±0.1 s.u.	P	NO	NA	MSI	L344-09	12/14/2023
pH 7.00a	7.03	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.09	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	999	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:		Date:	6/8/2023

Multiparameter Meter Field Calibration Checklist

Field Personnel:	Aaron Kimberlin	Location:	Coffeen
Weather:	60°-78° Sunny Winds NE 4mph	Environment:	grass, dirt
Multiparameter Water Meter	Make: AT Horiba	Model: ~~600~~ U5000	Serial Number: ~~262215~~ PW2 GYSD3
Water Level Meter	Make: Heron	Model: Dipper T	Serial Number: 3717-Y

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.02	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.94	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	9.49	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC Zero (DI)	0.00	µS/cm	0<25 µS/cm				Pace Labs	N/A (DI)	N/A (DI)
SC 2000	2090	µS/cm	±5%				Geotech	~~2GE1442~~	~~May-23~~ 26K056 Nov'23
ORP	222	mV	±15 mV		yes	238	InSitu	2G1762	Jun-23
DO (Zero pt)	0.04	mg/L	±0.1		no	N/A	Macron	#000228049	8/26/2025
DO (Saturated)	98.6	%	97-100%				Pace Labs	N/A (DI)	N/A (DI)
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

238 @ 18°C

ICV (Initial Calibration Verification) — Time: 0801

Buffer	Check Value	Units	Range	Pass/Fail	Action Taken?	Manufacturer	Lot#	Exp.
pH 4.00b	3.94	s.u.	±0.15 s.u.	P	N/A	Geotech	2GE870	Mar-24
pH 7.00b	6.87	s.u.	±0.15 s.u.			Geotech	2GC931	Mar-24
pH 10.00b	10.07	s.u.	±0.15 s.u.			Geotech	2GE820	May-24
SC 1000	1010	µS/cm	±5%			Ricca	4207N97	Jul-24

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time: 1330

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
pH 4.00a	4.03	s.u.	±0.1 s.u.	P	NO	N/A	MSI	L344-09	12/14/2023
pH 7.00a	6.99	s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
pH 10.00a	10.07	s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000	996	µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)	0.09	mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)	0.0	NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Approx. every 4 hrs, unless only one well

CCV (Continued Calibration Verification): — Time:

Buffer	Check Value	Units	Range	Pass/Fail	Calibrate?	Adjusted Reading	Manufacturer	Lot#	Exp.
4.00a		s.u.	±0.1 s.u.				MSI	L344-09	12/14/2023
7.00a		s.u.	±0.1 s.u.				MSI	L343-07	12/9/2023
10.00a		s.u.	±0.1 s.u.				MSI	M082-04	3/25/2024
SC 1000		µS/cm	±5%				Ricca	4207N97	Jul-24
DO (Zero pt)		mg/L	±0.1 mg/L				Macron	#000228049	8/26/2025
Turbidity (DI)		NTU	<2 NTU				Pace Labs	N/A (DI)	N/A (DI)

Comments:

Signature:	[signature]	Date:	6/9/2023

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

August 17, 2023

Brian Voelker
Vistra - Coffeen
1500 Eastport Plaza Drive
Collinsville, IL 62234

Dear Brian Voelker:

Please find enclosed the analytical results for the sample(s) the laboratory received. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sincerely,

Gail J Schindler

Gail Schindler
Project Manager
(309) 692-9688 x1716
gail.schindler@pacelabs.com

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GF00183

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order GF00247

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order GF00917

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order GF01342

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order GF01733

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
YES	Zero headspace, <6 mm present in VOA vials
YES	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

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Work Order GF01900

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
NO	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided

Pace Analytical Services, LLC
2231 W. Altorfer Drive
Peoria, IL 61615
(800)752-6651

ANALYTICAL RESULTS

Sample: GF00183-01
Name: G302
Matrix: Ground Water - Grab

Sampled: 05/31/23 16:00
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.5	pCi/L			1	0.7	07/06/23 21:21		904.0 903.0

Sample: GF00183-02
Name: G302 DUP
Matrix: Ground Water - Grab

Sampled: 05/31/23 16:00
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.46	pCi/L			1	0.673	07/06/23 21:21		904.0 903.0

Sample: GF00183-03
Name: G303
Matrix: Ground Water - Grab

Sampled: 05/31/23 17:23
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.22	pCi/L			1	0.652	07/06/23 21:21		904.0 903.0

Sample: GF00183-04
Name: G316
Matrix: Ground Water - Grab

Sampled: 05/31/23 10:33
Received: 06/01/23 13:59
PO #: 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.81	pCi/L			1	0.544	07/06/23 21:21		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF00183-05 **Sampled:** 05/31/23 16:45
Name: G406 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.262 U	pCi/L			1	0.778	07/06/23 21:21		904.0 903.0

Sample: GF00183-06 **Sampled:** 05/31/23 16:45
Name: G406 DUP **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.482 J	pCi/L			1	0.597	07/06/23 21:21		904.0 903.0

Sample: GF00183-07 **Sampled:** 05/31/23 14:09
Name: G407 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.792	pCi/L			1	0.589	07/10/23 16:46		904.0 903.0

Sample: GF00183-08 **Sampled:** 05/31/23 13:27
Name: G410 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.15	pCi/L			1	0.624	07/10/23 16:46		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF00183-09 **Sampled:** 05/31/23 12:00
Name: G411 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.623 J	pCi/L			1	0.642	07/10/23 16:46		904.0 903.0

Sample: GF00183-10 **Sampled:** 06/01/23 09:38
Name: G314D **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.54	pCi/L			1	0.616	07/10/23 16:46		904.0 903.0

Sample: GF00183-11 **Sampled:** 06/01/23 10:47
Name: G314 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.924	pCi/L			1	0.483	07/10/23 16:46		904.0 903.0

Sample: GF00183-12 **Sampled:** 06/01/23 11:12
Name: G218 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.05	pCi/L			1	0.668	07/10/23 16:46		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF00183-13 **Sampled:** 06/01/23 12:42
Name: G310 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.52	pCi/L			1	0.576	07/10/23 16:46		904.0 903.0

Sample: GF00183-14 **Sampled:** 06/01/23 14:01
Name: G312 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.845	pCi/L			1	0.543	07/10/23 16:46		904.0 903.0

Sample: GF00183-15 **Sampled:** 06/01/23 12:07
Name: G279 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.107 U	pCi/L			1	0.651	07/10/23 16:46		904.0 903.0

Sample: GF00183-16 **Sampled:** 06/01/23 10:27
Name: G277 **Received:** 06/01/23 13:59
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.05	pCi/L			1	0.526	07/10/23 16:46		904.0 903.0

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(800)752-6651

ANALYTICAL RESULTS

Sample: GF00247-01 **Sampled:** 06/01/23 14:34
Name: G151 **Received:** 06/02/23 07:00
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.268 U	pCi/L			1	0.724	07/06/23 21:21		904.0 903.0

Sample: GF00247-02 **Sampled:** 06/01/23 15:32
Name: G215 **Received:** 06/02/23 07:00
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.881	pCi/L			1	0.864	07/06/23 21:21		904.0 903.0

Sample: GF00247-03 **Sampled:** 06/01/23 15:52
Name: G308 **Received:** 06/02/23 07:00
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.481 J	pCi/L			1	0.73	07/06/23 21:21		904.0 903.0

Sample: GF00917-01 **Sampled:** 06/05/23 16:53
Name: G276 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.966	pCi/L			1	0.558	07/14/23 16:39		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF00917-02 **Sampled:** 06/05/23 15:25
Name: G273 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.248 U	pCi/L			1	0.548	07/14/23 16:39		904.0 903.0

Sample: GF00917-03 **Sampled:** 06/05/23 13:05
Name: G307 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.528 J	pCi/L			1	0.539	07/14/23 16:39		904.0 903.0

Sample: GF00917-04 **Sampled:** 06/05/23 14:20
Name: G307D **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.02	pCi/L			1	0.72	07/14/23 16:39		904.0 903.0

Sample: GF00917-05 **Sampled:** 06/05/23 15:43
Name: G306 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0900 U	pCi/L			1	0.569	07/14/23 16:39		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF00917-06 **Sampled:** 06/06/23 10:43
Name: G152 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.513 J	pCi/L			1	0.983	07/14/23 21:08		904.0 903.0

Sample: GF00917-07 **Sampled:** 06/06/23 12:20
Name: G153 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.146 U	pCi/L			1	0.974	07/14/23 21:08		904.0 903.0

Sample: GF00917-08 **Sampled:** 06/06/23 13:45
Name: G154 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.993	pCi/L			1	0.752	07/14/23 21:08		904.0 903.0
Rad 226 -Subcontract	0.141 J	pCi/L			1	0.31	07/14/23 21:08		904.0 903.0
Rad 228- Subcontract	0.852	pCi/L			1	0.685	07/14/23 21:08		904.0 904.0

Sample: GF00917-09 **Sampled:** 06/06/23 11:16
Name: G271 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.32	pCi/L			1	0.765	07/14/23 21:08		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF00917-10 **Sampled:** 06/06/23 09:58
Name: G305 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.63	pCi/L			1	0.675	07/14/23 21:08		904.0 903.0

Sample: GF00917-11 **Sampled:** 06/06/23 13:07
Name: G405 **Received:** 06/06/23 17:25
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.68	pCi/L			1	0.972	07/14/23 21:08		904.0 903.0

Sample: GF01342-01 **Sampled:** 06/06/23 16:38
Name: G301 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0829 U	pCi/L			1	0.97	07/14/23 16:39		904.0 903.0

Sample: GF01342-02 **Sampled:** 06/06/23 15:15
Name: G313 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.879	pCi/L			1	0.843	07/14/23 16:39		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF01342-03 **Sampled:** 06/06/23 15:15
Name: G313 DUP **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.325 J	pCi/L			1	0.755	07/14/23 16:39		904.0 903.0

Sample: GF01342-04 **Sampled:** 06/06/23 16:05
Name: G402 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.22	pCi/L			1	0.723	07/14/23 16:39		904.0 903.0

Sample: GF01342-05 **Sampled:** 06/07/23 10:02
Name: G315 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.344 J	pCi/L			1	0.672	07/14/23 16:39		904.0 903.0

Sample: GF01342-06 **Sampled:** 06/07/23 11:25
Name: G403 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.91	pCi/L			1	0.644	07/14/23 16:39		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF01342-07 **Sampled:** 06/07/23 12:51
Name: G404 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.36	pCi/L			1	0.514	07/14/23 16:39		904.0 903.0

Sample: GF01342-08 **Sampled:** 06/07/23 10:24
Name: G1001 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.917	pCi/L			1	0.744	07/14/23 16:39		904.0 903.0

Sample: GF01342-09 **Sampled:** 06/07/23 11:58
Name: G401 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.628 J	pCi/L			1	0.665	07/14/23 16:39		904.0 903.0

Sample: GF01342-10 **Sampled:** 06/07/23 10:08
Name: G155 **Received:** 06/07/23 17:02
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.3	pCi/L			1	1.08	07/14/23 16:39		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF01733-01 **Sampled:** 06/07/23 15:35
Name: G212 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.194 U	pCi/L			1	0.838	07/13/23 20:53		904.0 903.0

Sample: GF01733-02 **Sampled:** 06/07/23 16:49
Name: G213 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.399 J	pCi/L			1	0.642	07/13/23 20:53		904.0 903.0

Sample: GF01733-03 **Sampled:** 06/07/23 17:23
Name: G200 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	4.48	pCi/L			1	0.893	07/13/23 20:53		904.0 903.0

Sample: GF01733-04 **Sampled:** 06/07/23 17:55
Name: EB-01 **Received:** 06/09/23 06:50
Matrix: Ground Water - Equipment Blank **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.88	pCi/L			1	0.558	07/13/23 20:53		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF01733-05 **Sampled:** 06/08/23 12:00
Name: G275 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0751 U	pCi/L			1	0.749	07/13/23 20:53		904.0 903.0

Sample: GF01733-06 **Sampled:** 06/08/23 12:00
Name: G275 DUP **Received:** 06/09/23 06:50
Matrix: Ground Water - Field Duplicate **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.0267 U	pCi/L			1	0.893	07/14/23 10:35		904.0 903.0

Sample: GF01733-07 **Sampled:** 06/08/23 13:13
Name: G275D **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.34	pCi/L			1	0.73	07/14/23 10:35		904.0 903.0

Sample: GF01733-08 **Sampled:** 06/08/23 09:25
Name: G280 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.839	pCi/L			1	0.764	07/14/23 10:35		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF01733-09 **Sampled:** 06/08/23 14:32
Name: G283 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	2.88	pCi/L			1	0.791	07/14/23 10:35		904.0 903.0

Sample: GF01733-10 **Sampled:** 06/08/23 13:53
Name: G285 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	3.1	pCi/L			1	0.516	07/14/23 10:35		904.0 903.0

Sample: GF01733-11 **Sampled:** 06/08/23 13:48
Name: G281 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.000 U	pCi/L			1	0.769	07/14/23 10:35		904.0 903.0

Sample: GF01733-12 **Sampled:** 06/08/23 09:54
Name: G270 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.485 J	pCi/L			1	0.772	07/14/23 10:35		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF01733-13 **Sampled:** 06/08/23 15:16
Name: G284 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.01	pCi/L			1	0.742	07/14/23 10:35		904.0 903.0

Sample: GF01733-14 **Sampled:** 06/08/23 16:56
Name: G217 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.574 J	pCi/L			1	0.778	07/14/23 10:35		904.0 903.0

Sample: GF01733-15 **Sampled:** 06/07/23 15:40
Name: R201 **Received:** 06/09/23 06:50
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.5	pCi/L			1	0.778	07/14/23 16:39		904.0 903.0

Sample: GF01900-01 **Sampled:** 06/09/23 13:20
Name: G206 **Received:** 06/09/23 16:14
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.227 U	pCi/L			1	0.656	07/14/23 16:39		904.0 903.0

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ANALYTICAL RESULTS

Sample: GF01900-02 **Sampled:** 06/09/23 13:20
Name: G206 DUP **Received:** 06/09/23 16:14
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	1.79	pCi/L			1	0.704	07/14/23 16:39		904.0 903.0

Sample: GF01900-03 **Sampled:** 06/09/23 12:29
Name: G206D **Received:** 06/09/23 16:14
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.701	pCi/L			1	0.591	07/14/23 16:39		904.0 903.0

Sample: GF01900-04 **Sampled:** 06/09/23 09:44
Name: G209 **Received:** 06/09/23 16:14
Matrix: Ground Water - Grab **PO #:** 1940007155

Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Miscellaneous - Pace Analytical - Mt Juliet, Tn									
Rad 226 and 228-Subcontract	0.292 J	pCi/L			1	0.665	07/14/23 16:39		904.0 903.0

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QC SAMPLE RESULTS

Parameter	Result	Unit	Qual	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

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NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

CHI - McHenry, IL - 4314-A W. Crystal Lake Road, McHenry, IL 60050
TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556

PIA - Peoria, IL - 2231 W. Altorfer Drive, Peoria, IL 61615
TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553
Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870)
Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)
Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

SPMO - Springfield, MO - 1805 W Sunset Street, Springfield, MO 65807
USEPA DMR-QA Program

STL - Hazelwood, MO - 944 Anglum Rd, Hazelwood, MO 63042
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389
TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080
Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050
Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Gail J Schindler

Certified by: Gail Schindler, Project Manager

Pace Analytical

ANALYTICAL REPORT

July 13, 2023

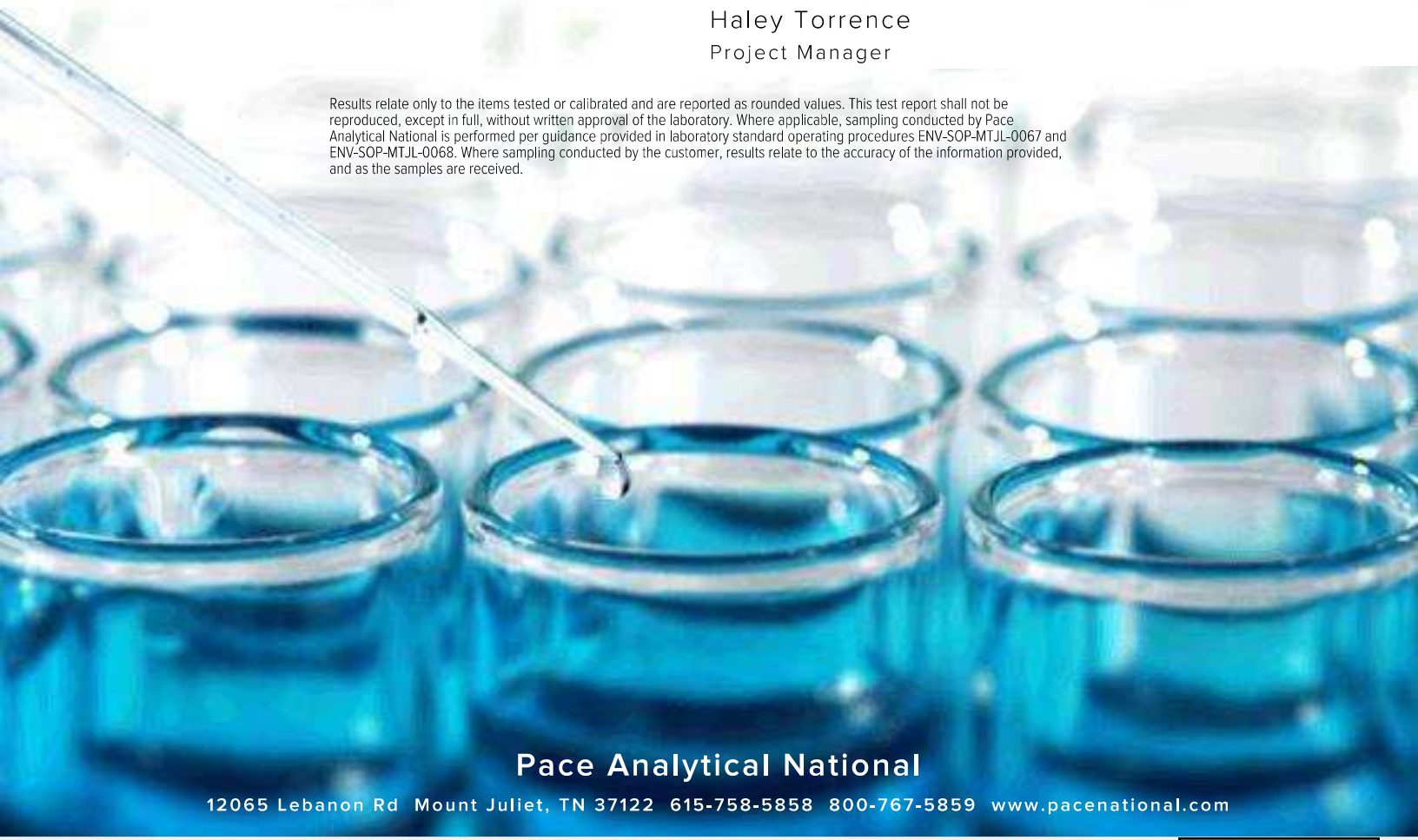
Pace IR - Peoria, IL

Sample Delivery Group:	L1623496
Samples Received:	06/07/2023
Project Number:	GF00183
Description:	Vistra-Coffeen
Site:	001
Report To:	Gail Schindler 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

Haley Torrence
Project Manager



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SAMPLE SUMMARY

G302 L1623496-01 Non-Potable Water

Collected by | Collected date/time 05/31/23 16:00 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

G302 DUP L1623496-02 Non-Potable Water

Collected by | Collected date/time 05/31/23 16:00 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

G303 L1623496-03 Non-Potable Water

Collected by | Collected date/time 05/31/23 17:23 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

G316 L1623496-04 Non-Potable Water

Collected by | Collected date/time 05/31/23 10:33 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

G406 L1623496-05 Non-Potable Water

Collected by | Collected date/time 05/31/23 16:45 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

G406 DUP L1623496-06 Non-Potable Water

Collected by | Collected date/time 05/31/23 16:45 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

G407 L1623496-07 Non-Potable Water

Collected by | Collected date/time 05/31/23 14:09 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G410 L1623496-08 Non-Potable Water

Collected by | Collected date/time 05/31/23 13:27 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G411 L1623496-09 Non-Potable Water

Collected by | Collected date/time 05/31/23 12:00 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G314D L1623496-10 Non-Potable Water

Collected by | Collected date/time 06/01/23 09:38 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G314 L1623496-11 Non-Potable Water

Collected by | Collected date/time 06/01/23 10:47 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G218 L1623496-12 Non-Potable Water

Collected by | Collected date/time 06/01/23 11:12 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

G310 L1623496-13 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				06/01/23 12:42	06/07/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G312 L1623496-14 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				06/01/23 14:01	06/07/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G279 L1623496-15 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				06/01/23 12:07	06/07/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

G277 L1623496-16 Non-Potable Water

			Collected by	Collected date/time	Received date/time	
				06/01/23 10:27	06/07/23 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089578	1	07/07/23 11:14	07/10/23 16:46	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Haley Torrence

Haley Torrence
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.40		0.390	0.669	07/05/2023 21:27	WG2085377
(T) Barium	*72.2*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*107*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.50		0.415	0.700	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.106	J	0.142	0.205	07/06/2023 21:21	WG2089290
(T) Barium-133	*118*			*30.0-143*	*07/06/2023 21:21*	WG2089290

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Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	2.19		0.374	0.613	07/05/2023 21:27	WG2085377
(T) Barium	*71.4*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*114*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.46		0.442	0.673	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.272	J	0.235	0.278	07/06/2023 21:21	WG2089290
(T) Barium-133	*106*			*30.0-143*	*07/06/2023 21:21*	WG2089290

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.09		0.320	0.550	07/05/2023 21:27	WG2085377
(T) Barium	*77.6*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*108*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.22		0.396	0.652	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.126	J	0.234	0.351	07/06/2023 21:21	WG2089290
(T) Barium-133	*101*			*30.0-143*	*07/06/2023 21:21*	WG2089290

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.49		0.284	0.467	07/05/2023 21:27	WG2085377
(T) Barium	*80.1*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*111*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.81		0.376	0.544	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.327		0.247	0.279	07/06/2023 21:21	WG2089290
(T) Barium-133	*102*			*30.0-143*	*07/06/2023 21:21*	WG2089290

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0457	U	0.397	0.719	07/05/2023 21:27	WG2085377
(T) Barium	*75.3*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*110*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.262	U	0.457	0.778	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.217	J	0.226	0.298	07/06/2023 21:21	WG2089290
(T) Barium-133	*99.9*			*30.0-143*	*07/06/2023 21:21*	WG2089290

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Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.342	J	0.284	0.510	07/05/2023 21:27	WG2085377
(T) Barium	*76.7*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*103*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.482	J	0.351	0.597	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.140	J	0.207	0.311	07/06/2023 21:21	WG2089290
(T) Barium-133	*95.1*			*30.0-143*	*07/06/2023 21:21*	WG2089290

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.734		0.318	0.558	07/05/2023 21:27	WG2085377
(T) Barium	*82.0*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*101*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.792		0.336	0.589	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0575	U	0.109	0.190	07/10/2023 16:46	WG2089578
(T) Barium-133	*80.0*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.747		0.320	0.560	07/05/2023 21:27	WG2085377
(T) Barium	*87.7*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*97.7*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	3.15		0.684	0.624	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	2.40		0.604	0.275	07/10/2023 16:46	WG2089578
(T) Barium-133	*85.3*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.498	U	0.299	0.561	07/05/2023 21:27	WG2085377
(T) Barium	*81.9*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*118*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.623	J	0.465	0.642	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.623		0.356	0.313	07/10/2023 16:46	WG2089578
(T) Barium-133	*74.2*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	1.57		0.313	0.523	07/05/2023 21:27	WG2085377
(T) Barium	*82.2*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*105*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	2.54		0.515	0.616	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.969		0.409	0.325	07/10/2023 16:46	WG2089578
(T) Barium-133	*104*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.609		0.247	0.432	07/05/2023 21:27	WG2085377
(T) Barium	*88.3*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*107*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.924		0.336	0.483	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.315		0.228	0.217	07/10/2023 16:46	WG2089578
(T) Barium-133	*106*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.859		0.353	0.619	07/05/2023 21:27	WG2085377
(T) Barium	*76.8*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*98.0*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.05		0.404	0.668	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.189	J	0.196	0.250	07/10/2023 16:46	WG2089578
(T) Barium-133	*112*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.698		0.288	0.505	07/05/2023 21:27	WG2085377
(T) Barium	*82.7*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*114*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.52		0.457	0.576	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.822		0.355	0.277	07/10/2023 16:46	WG2089578
(T) Barium-133	*105*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.685		0.239	0.414	07/05/2023 21:27	WG2085377
(T) Barium	*85.8*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*126*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.845		0.336	0.543	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.160	J	0.236	0.351	07/10/2023 16:46	WG2089578
(T) Barium-133	*88.3*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.144	U	0.314	0.576	07/05/2023 21:27	WG2085377
(T) Barium	*86.3*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*109*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.107	U	0.370	0.651	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.107	U	0.195	0.303	07/10/2023 16:46	WG2089578
(T) Barium-133	*97.0*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.777		0.286	0.498	07/05/2023 21:27	WG2085377
(T) Barium	*77.8*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*115*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.05		0.341	0.526	07/10/2023 16:46	WG2089578

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.275		0.186	0.169	07/10/2023 16:46	WG2089578
(T) Barium-133	*99.6*			*30.0-143*	*07/10/2023 16:46*	WG2089578

Method Blank (MB)

(MB) R3946996-1 07/05/23 21:27

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.202	J	0.186	0.335
(T) Barium	*84.2*		*84.2*	
(T) Yttrium	*106*		*106*	

L1623496-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1623496-03 07/05/23 21:27 • (DUP) R3946996-5 07/05/23 21:27

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.09	0.320	0.550	1.05	0.420	0.550	1	4.30	0.0871		20	3
(T) Barium	*77.6*			*93.1*	*93.1*							
(T) Yttrium	*108*			*107*	*107*							

Laboratory Control Sample (LCS)

(LCS) R3946996-2 07/05/23 21:27

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.08	102	80.0-120	
(T) Barium			*92.3*		
(T) Yttrium			*117*		

L1623493-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1623493-01 07/05/23 21:27 • (MS) R3946996-3 07/05/23 21:27 • (MSD) R3946996-4 07/05/23 21:27

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.153	10.4	11.1	102	109	1	70.0-130			6.34		20
(T) Barium		*75.2*			*90.8*	*87.9*							
(T) Yttrium		*109*			*109*	*110*							

Method Blank (MB)

(MB) R3946774-1 07/06/23 21:21

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.00437	U	0.0542	0.105
(T) Barium-133	*77.4*		*77.4*	

L1623471-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1623471-23 07/06/23 21:21 • (DUP) R3946774-5 07/06/23 21:21

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	1.73	0.526	0.274	0.0499	0.0948	0.274	1	189	3.14	J3 U	20	3
(T) Barium-133	*84.8*			*99.6*	*99.6*							

L1623471-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1623471-23 07/06/23 21:21 • (DUP) R3946774-6 07/07/23 23:34

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	1.73	0.526	0.274	0.0460	0.165	0.274	1	190	3.05	J3 U	20	3
(T) Barium-133	*84.8*			*99.6*	*99.6*							

Laboratory Control Sample (LCS)

(LCS) R3946774-2 07/06/23 21:21

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.08	81.5	80.0-120	
(T) Barium-133			*88.5*		

L1623471-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1623471-28 07/06/23 21:21 • (MS) R3946774-3 07/06/23 21:21 • (MSD) R3946774-4 07/06/23 21:21

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
um-226	20.0	0.469	16.8	17.9	81.6	87.0	1	75.0-125			6.23		20
) Barium-133		*93.5*			*84.3*	*89.3*							

Method Blank (MB)

(MB) R3947336-1 07/10/23 16:46

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.0221	U	0.0292	0.0840
(T) Barium-133	*88.1*		*88.1*	

L1624825-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1624825-02 07/10/23 16:46 • (DUP) R3947336-5 07/10/23 16:46

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.651	0.404	0.430	0.543	0.474	0.430	1	18.2	0.174	J	20	3
(T) Barium-133	*75.9*			*44.1*	*44.1*							

Laboratory Control Sample (LCS)

(LCS) R3947336-2 07/10/23 16:46

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.21	84.1	80.0-120	
(T) Barium-133			*82.5*		

L1623496-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1623496-07 07/10/23 16:46 • (MS) R3947336-3 07/10/23 16:46 • (MSD) R3947336-4 07/10/23 16:46

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.0575	16.6	19.9	82.7	99.0	1	75.0-125			17.9		20
(T) Barium-133		*80.0*			*93.0*	*80.9*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Owner Received Date: 6/1/2023
Results Requ By: 6/27/2023

Workorder: GF00183 (Page 1) **Workorder Name:** Vistra - Coffeen

A172

Report To:	Subcontract To:
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122

LL623496

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis: Radium 226/228	LAB USE ONLY
1	G302	GRAB	5/31/2023 16:00	GF00183-01	GW		X	-01
2	G302 DUP	GRAB	5/31/2023 16:00	GF00183-02	GW		X	-02
3	G303	GRAB	5/31/2023 17:23	GF00183-03	GW		X	-03
4	G316	GRAB	5/31/2023 10:33	GF00183-04	GW		X	-04
5	G406	GRAB	5/31/2023 16:45	GF00183-05	GW		X	-05
6	G406 DUP	GRAB	5/31/2023 16:45	GF00183-06	GW		X	-06
7	G407	GRAB	5/31/2023 14:09	GF00183-07	GW		X	-07
8	G410	GRAB	5/31/2023 13:27	GF00183-08	GW		X	-08
9	G411	GRAB	5/31/2023 12:00	GF00183-09	GW		X	-09
10	G314D	GRAB	6/1/2023 9:38	GF00183-10	GW		X	-10

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	6/6/23 1235	Hailey Robertson	6/7/23 0900	Needs reported as 226, 228 and also combined 226/228
2					Include QC summary and edd
3					

Cooler Temperature on Receipt _____ °C | **Custody Seal** Y or N | **Received on Ice** Y or N | **Sample Intact** Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009 Page 1 of 1

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Workorder: GF00183 (Page 2) **Workorder Name:** Vistra - Coffeen

Owner Received Date: 6/1/2023 **Results Requ By:** 6/27/2023

Report To:	Subcontract To:
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis: Radium 226/228	LAB USE ONLY
1	G314	GRAB	6/1/2023 10:47	GF00183-11	GW		X	-11
2	G218	GRAB	6/1/2023 11:12	GF00183-12	GW		X	-12
3	G310	GRAB	6/1/2023 12:42	GF00183-13	GW		X	-13
4	G312	GRAB	6/1/2023 14:01	GF00183-14	GW		X	-14
5	G279	GRAB	6/1/2023 12:07	GF00183-15	GW		X	-15
6	G277	GRAB	6/1/2023 10:27	GF00183-16	GW		X	-16
7								
8								
9								
10								

L1623496
LAB USE ONLY

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	6/6/23 1255	Hailey Robertson	06/07/23 0900	Needs reported as 226, 228 and also combined 226/228 Include QC summary and edd
2					
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N
	Y	Y	Y

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

L1623496

Pace Analytical®
www.pacelabs.com

Ship to :
Pace Analytical - Mt Juliet
12065 Lebanon Rd
Mt Juliet TN 37122

INTER_LABORATORY WORK ORDER # GF00183
(To be complete by sending lab)

Sending Project No:	GF00183
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/6/2023
REQUESTED COMPLETION DATE:	6/27/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Coffeen
State of Sample Origin	IL	QC Deliverable	**STD Report**

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	**Container Type**	**Quantity of**	**Preservative**	**Quantity of**	**Unit Price**	**Amount**
Radium 226/228		16		16	$229.30	$3,668.80
		1		1	$0.00	$0.00
		1		1		$0.00
					TOTAL	$3,668.80

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	$3,668.80	$2,935.04	$733.76
* Custom Revenue Allocation		TOTAL	$2,935.04	$733.76

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: [ ] Yes [X] No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

L1623496

Tracking Numbers	NS A7 Temperature
6319 5999 9891 60	20.7±0=20.7
6319 5999 8999	20.9±0=20.9
6319 5999 9002	22.9±0=22.9

ANALYTICAL REPORT

July 13, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1623493
Samples Received:	06/07/2023
Project Number:	GF00247
Description:	Vistra-Coffeen
Site:	001
Report To:	Gail Schindler 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

Haley Torrence
Project Manager

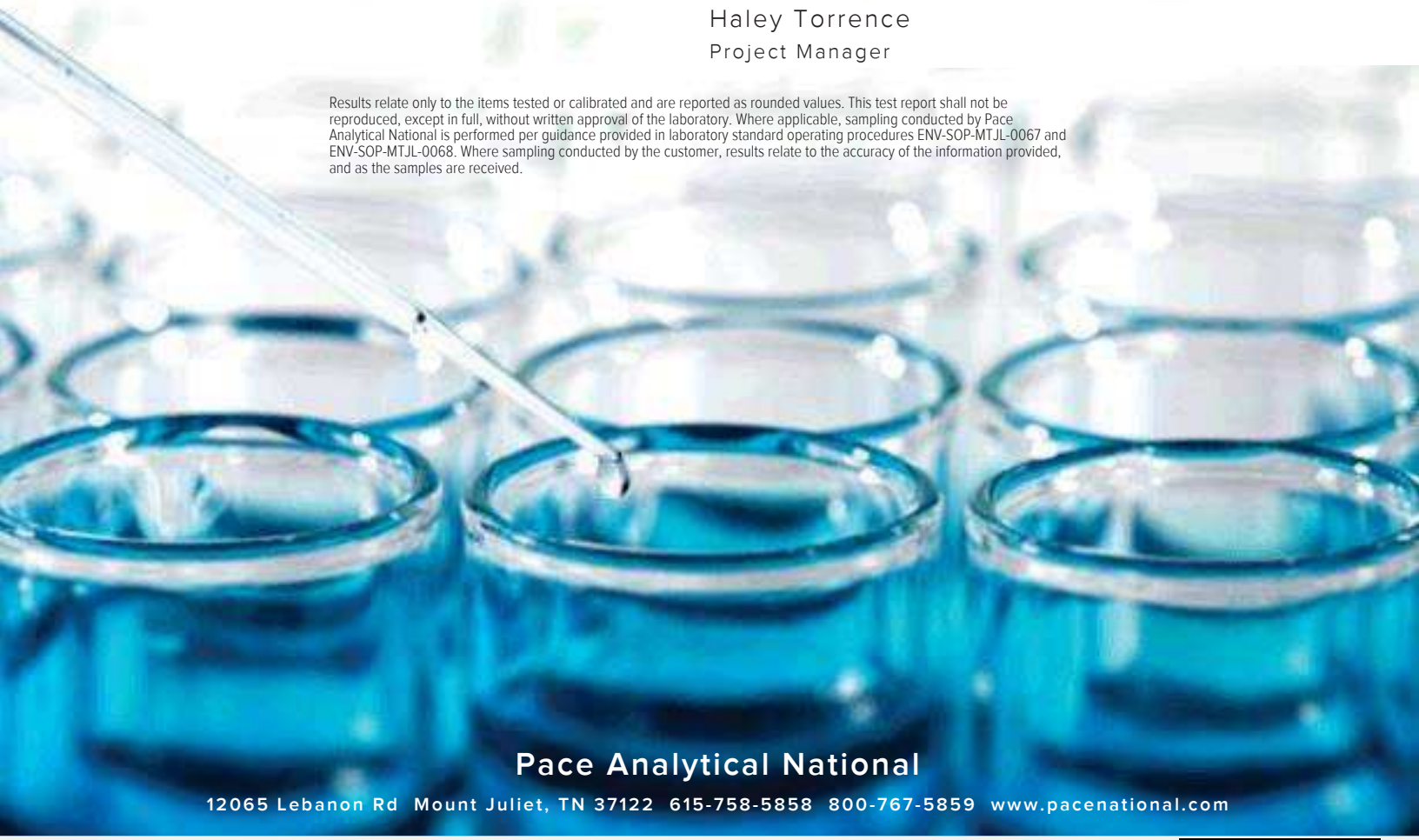

TABLE OF CONTENTS

SAMPLE SUMMARY

G151 L1623493-01 Non-Potable Water

Collected by | Collected date/time 06/01/23 14:34 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

G215 L1623493-02 Non-Potable Water

Collected by | Collected date/time 06/01/23 15:32 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

G308 L1623493-03 Non-Potable Water

Collected by | Collected date/time 06/01/23 15:52 | Received date/time 06/07/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2085377	1	06/29/23 16:49	07/05/23 21:27	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2089290	1	07/05/23 13:39	07/06/23 21:21	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2089290	1	07/05/23 13:39	07/06/23 21:21	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Haley Torrence
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.153	U	0.390	0.704	07/05/2023 21:27	WG2085377
(T) Barium	*75.2*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*109*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.268	U	0.411	0.724	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.115	J	0.131	0.169	07/06/2023 21:21	WG2089290
(T) Barium-133	*106*			*30.0-143*	*07/06/2023 21:21*	WG2089290

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.231	U	0.437	0.785	07/05/2023 21:27	WG2085377
(T) Barium	*69.7*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*110*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.881		0.571	0.864	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.650		0.367	0.362	07/06/2023 21:21	WG2089290
(T) Barium-133	*86.8*			*30.0-143*	*07/06/2023 21:21*	WG2089290

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.195	U	0.354	0.637	07/05/2023 21:27	WG2085377
(T) Barium	*83.1*			*30.0-143*	*07/05/2023 21:27*	WG2085377
(T) Yttrium	*104*			*30.0-136*	*07/05/2023 21:27*	WG2085377

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.481	J	0.437	0.713	07/06/2023 21:21	WG2089290

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.286	J	0.256	0.321	07/06/2023 21:21	WG2089290
(T) Barium-133	*121*			*30.0-143*	*07/06/2023 21:21*	WG2089290

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

QUALITY CONTROL SUMMARY

L1623493-01,02,03

Method Blank (MB)

(MB) R3946996-1 07/05/23 21:27

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.202	J	0.186	0.335
(T) Barium	*84.2*		*84.2*	
(T) Yttrium	*106*		*106*	

L1623496-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1623496-03 07/05/23 21:27 • (DUP) R3946996-5 07/05/23 21:27

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.09	0.320	0.550	1.05	0.420	0.550	1	4.30	0.0871		20	3
(T) Barium	*77.6*			*93.1*	*93.1*							
(T) Yttrium	*108*			*107*	*107*							

Laboratory Control Sample (LCS)

(LCS) R3946996-2 07/05/23 21:27

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.08	102	80.0-120	
(T) Barium			*92.3*		
(T) Yttrium			*117*		

L1623493-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1623493-01 07/05/23 21:27 • (MS) R3946996-3 07/05/23 21:27 • (MSD) R3946996-4 07/05/23 21:27

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	0.153	10.4	11.1	102	109	1	70.0-130			6.34		20
(T) Barium		*75.2*			*90.8*	*87.9*							
(T) Yttrium		*109*			*109*	*110*							

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

QUALITY CONTROL SUMMARY

L1623493-01,02,03

Method Blank (MB)

(MB) R3946774-1 07/06/23 21:21

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.00437	U	0.0542	0.105
(T) Barium-133	*77.4*		*77.4*	

L1623471-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1623471-23 07/06/23 21:21 • (DUP) R3946774-5 07/06/23 21:21

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	1.73	0.526	0.274	0.0499	0.0948	0.274	1	189	3.14	J3 U	20	3
(T) Barium-133	*84.8*			*99.6*	*99.6*							

L1623471-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1623471-23 07/06/23 21:21 • (DUP) R3946774-6 07/07/23 23:34

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	1.73	0.526	0.274	0.0460	0.165	0.274	1	190	3.05	J3 U	20	3
(T) Barium-133	*84.8*			*99.6*	*99.6*							

Laboratory Control Sample (LCS)

(LCS) R3946774-2 07/06/23 21:21

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.08	81.5	80.0-120	
(T) Barium-133			*88.5*		

L1623471-28 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1623471-28 07/06/23 21:21 • (MS) R3946774-3 07/06/23 21:21 • (MSD) R3946774-4 07/06/23 21:21

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
ium-226	20.0	0.469	16.8	17.9	81.6	87.0	1	75.0-125			6.23		20
) Barium-133		*93.5*			*84.3*	*89.3*							

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GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

Pace Analytical® www.pacelabs.com

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Owner Received Date: 6/1/2023
Results Requested By: 6/27/2023

Workorder: GF00247
Workorder Name: Vistra - Coffeen

A173

Report To:
Gail Schindler
Pace Analytical - IL/MO
2231 W. Altorfer Drive
Peoria, IL 61615
800-752-6651

Subcontract To:
Pace Analytical - Mt Juliet
12065 Lebanon Rd
Mt Juliet TN 37122

L1623493

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Radium 226/228	LAB USE ONLY
1	G151	GRAB	6/1/2023 14:34	GF00247-01	GW		X	-01
2	G215	GRAB	6/1/2023 15:32	GF00247-02	GW		X	-02
3	G308	GRAB	6/1/2023 15:52	GF00247-03	GW		X	-03
4								
5								
6								
7								
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	6/6/23 1235	Hailey Robertson	6/7/23 0900	Needs reported as 226, 228 and also combined 226/228 Include QC summary and edd
2					
3					

Cooler Temperature on Receipt ________ °C | Custody Seal Y or N (Y circled) | Received on Ice Y or N (N circled) | Sample Intact Y or N (Y circled)

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009 Page 1 of 1

6319 5999 8966 20.7±0=20.7
NS A7

Sample Receipt Checklist
COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N
If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

L1623493

Pace Analytical
www.pacelabs.com

Ship to :
Pace Analytical - Mt Juliet
12065 Lebanon Rd
Mt Juliet TN 37122

INTER_LABORATORY WORK ORDER # GF00247
(To be complete by sending lab)

Sending Project No:	GF00247
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/6/2023
REQUESTED COMPLETION DATE:	6/27/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Coffeen
State of Sample Origin	IL	QC Deliverable	**STD Report**

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	**Container Type**	**Quantity of**	**Preservative**	**Quantity of**	**Unit Price**	**Amount**
Radium 226/228		3		3	$229.30	$687.90
		1		1	$0.00	$0.00
		1		1		$0.00
					TOTAL	$687.90

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	$687.90	$550.32	$137.58
* Custom Revenue Allocation		TOTAL	$550.32	$137.58

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: [ ] Yes [X] No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

ANALYTICAL REPORT

July 19, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1626090
Samples Received:	06/14/2023
Project Number:	GF00917
Description:	Vistra-Coffeen
Site:	001
Report To:	Gail Schindler 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

Haley Torrence
Project Manager

TABLE OF CONTENTS

G276 L1626090-01 Non-Potable Water

Collected by | Collected date/time 06/05/23 16:53 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G273 L1626090-02 Non-Potable Water

Collected by | Collected date/time 06/05/23 15:25 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G307 L1626090-03 Non-Potable Water

Collected by | Collected date/time 06/05/23 13:05 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G307D L1626090-04 Non-Potable Water

Collected by | Collected date/time 06/05/23 14:20 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G306 L1626090-05 Non-Potable Water

Collected by | Collected date/time 06/05/23 15:43 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G152 L1626090-06 Non-Potable Water

Collected by | Collected date/time 06/06/23 10:43 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090705	1	07/07/23 09:51	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

G153 L1626090-07 Non-Potable Water

Collected by | Collected date/time 06/06/23 12:20 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090705	1	07/07/23 09:51	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G154 L1626090-08 Non-Potable Water

Collected by | Collected date/time 06/06/23 13:45 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090705	1	07/07/23 09:51	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G271 L1626090-09 Non-Potable Water

Collected by | Collected date/time 06/06/23 11:16 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090705	1	07/07/23 09:51	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:42	RGT	Mt. Juliet, TN

G305 L1626090-10 Non-Potable Water

Collected by | Collected date/time 06/06/23 09:58 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090705	1	07/07/23 09:51	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:42	RGT	Mt. Juliet, TN

G405 L1626090-11 Non-Potable Water

Collected by | Collected date/time 06/06/23 13:07 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090705	1	07/07/23 09:51	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 21:08	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:42	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Haley Torrence
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.892		0.312	0.537	07/14/2023 16:39	WG2090394
(T) Barium	*75.1*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*113*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.966		0.329	0.558	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0747	J	0.104	0.152	07/12/2023 09:41	WG2091007
(T) Barium-133	*106*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.248	J	0.277	0.496	07/14/2023 16:39	WG2090394
(T) Barium	*77.4*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*100*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.248	U	0.294	0.548	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0129	U	0.0979	0.234	07/12/2023 09:41	WG2091007
(T) Barium-133	*105*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.333	J	0.273	0.486	07/14/2023 16:39	WG2090394
(T) Barium	*79.4*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*95.2*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.528	J	0.331	0.539	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.194	J	0.188	0.233	07/12/2023 09:41	WG2091007
(T) Barium-133	*108*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.927		0.371	0.643	07/14/2023 16:39	WG2090394
(T) Barium	*70.9*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*110*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.02		0.422	0.720	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0984	U	0.202	0.325	07/12/2023 09:41	WG2091007
(T) Barium-133	*100*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.274	U	0.283	0.526	07/14/2023 16:39	WG2090394
(T) Barium	*73.4*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*103*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0900	U	0.315	0.569	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0900	J	0.139	0.217	07/12/2023 09:41	WG2091007
(T) Barium-133	*106*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.475	J	0.523	0.951	07/14/2023 21:08	WG2090705
(T) Barium	*70.0*			*30.0-143*	*07/14/2023 21:08*	WG2090705
(T) Yttrium	*103*			*30.0-136*	*07/14/2023 21:08*	WG2090705

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.513	J	0.539	0.983	07/14/2023 21:08	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0379	U	0.129	0.250	07/12/2023 09:41	WG2091007
(T) Barium-133	*102*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-1.50	U	0.467	0.891	07/14/2023 21:08	WG2090705
(T) Barium	*67.0*			*30.0-143*	*07/14/2023 21:08*	WG2090705
(T) Yttrium	*114*			*30.0-136*	*07/14/2023 21:08*	WG2090705

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.146	U	0.531	0.974	07/14/2023 21:08	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.146	J	0.252	0.394	07/12/2023 09:41	WG2091007
(T) Barium-133	*70.4*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.852		0.385	0.685	07/14/2023 21:08	WG2090705
(T) Barium	*77.4*			*30.0-143*	*07/14/2023 21:08*	WG2090705
(T) Yttrium	*106*			*30.0-136*	*07/14/2023 21:08*	WG2090705

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.993		0.438	0.752	07/14/2023 21:08	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.141	J	0.208	0.310	07/12/2023 09:41	WG2091007
(T) Barium-133	*110*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.09		0.413	0.706	07/14/2023 21:08	WG2090705
(T) Barium	*75.7*			*30.0-143*	*07/14/2023 21:08*	WG2090705
(T) Yttrium	*98.5*			*30.0-136*	*07/14/2023 21:08*	WG2090705

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.32		0.472	0.765	07/14/2023 21:08	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.234	J	0.228	0.294	07/12/2023 09:42	WG2091007
(T) Barium-133	*104*			*30.0-143*	*07/12/2023 09:42*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.47		0.378	0.654	07/14/2023 21:08	WG2090705
(T) Barium	*70.8*			*30.0-143*	*07/14/2023 21:08*	WG2090705
(T) Yttrium	*107*			*30.0-136*	*07/14/2023 21:08*	WG2090705

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.63		0.405	0.675	07/14/2023 21:08	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.157	J	0.146	0.168	07/12/2023 09:42	WG2091007
(T) Barium-133	*104*			*30.0-143*	*07/12/2023 09:42*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.53		0.543	0.957	07/14/2023 21:08	WG2090705
(T) Barium	*67.8*			*30.0-143*	*07/14/2023 21:08*	WG2090705
(T) Yttrium	*102*			*30.0-136*	*07/14/2023 21:08*	WG2090705

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.68		0.562	0.972	07/14/2023 21:08	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.147	J	0.146	0.169	07/12/2023 09:42	WG2091007
(T) Barium-133	*106*			*30.0-143*	*07/12/2023 09:42*	WG2091007

Method Blank (MB)

(MB) R3949806-1 07/14/23 16:39

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	-0.0717	U	0.214	0.391
(T) Barium	*75.2*		*75.2*	
(T) Yttrium	*103*		*103*	

L1626087-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1626087-01 07/14/23 16:39 • (DUP) R3949806-5 07/14/23 16:39

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-228	0.0607	0.339	0.611	0.575	0.509	0.611	1	162	0.841	J	20	3
(T) Barium	*75.6*			*73.0*	*73.0*							
(T) Yttrium	*99.0*			*106*	*106*							

Laboratory Control Sample (LCS)

(LCS) R3949806-2 07/14/23 16:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	5.82	116	80.0-120	
(T) Barium			*78.0*		
(T) Yttrium			*95.3*		

L1626083-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626083-15 07/14/23 16:39 • (MS) R3949806-3 07/14/23 16:39 • (MSD) R3949806-4 07/14/23 16:39

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-228	10.0	1.14	13.2	13.1	120	120	1	70.0-130			0.304		20
(T) Barium		*66.6*			*75.7*	*76.3*							
(T) Yttrium		*116*			*116*	*116*							

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

QUALITY CONTROL SUMMARY

L1626090-06,07,08,09,10,11

Method Blank (MB)

(MB) R3949833-1 07/14/23 21:08

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	-0.240	U	0.169	0.323
(T) Barium	*91.9*		*91.9*	
(T) Yttrium	*99.0*		*99.0*	

L1626090-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1626090-11 07/14/23 21:08 • (DUP) R3949833-5 07/14/23 21:08

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	1.53	0.543	0.957	1.10	0.470	0.957	1	32.7	0.599		20	3
(T) Barium	*67.8*			*79.4*	*79.4*							
(T) Yttrium	*102*			*119*	*119*							

Laboratory Control Sample (LCS)

(LCS) R3949833-2 07/14/23 21:08

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.83	117	80.0-120	
(T) Barium			*79.4*		
(T) Yttrium			*94.1*		

L1626090-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626090-06 07/14/23 21:08 • (MS) R3949833-3 07/14/23 21:08 • (MSD) R3949833-4 07/14/23 21:08

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.475	21.8	20.8	127	122	1	70.0-130			4.47		20
(T) Barium		*70.0*			*80.0*	*78.5*							
(T) Yttrium		*103*			*112*	*114*							

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3947927-1 07/12/23 09:41

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	0.0193	U	0.0480	0.0791
(T) Barium-133	*99.3*		*99.3*	

L1626090-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1626090-11 07/12/23 09:42 • (DUP) R3947927-5 07/12/23 09:41

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.147	0.146	0.169	0.00608	0.205	0.169	1	184	0.560	U	20	3
(T) Barium-133	*106*			*98.7*	*98.7*							

Laboratory Control Sample (LCS)

(LCS) R3947927-2 07/12/23 09:41

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.58	91.3	80.0-120	
(T) Barium-133			*103*		

L1626086-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626086-07 07/12/23 09:41 • (MS) R3947927-3 07/12/23 09:41 • (MSD) R3947927-4 07/12/23 09:41

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.376	18.6	19.0	91.2	93.3	1	75.0-125			2.23		20
(T) Barium-133		*93.7*			*94.0*	*93.5*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

A102

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Owner Received Date: 6/6/2023
Results Requ By: 7/3/2023

Workorder: GF00917 **Workorder Name:** Vistra - Coffeen

Report To:	Subcontract To:
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis: Radium 226/228 ←2	LAB USE ONLY L1621090
1	G276	GRAB	6/5/2023 16:53	GF00917-01	GW		X	-01
2	G273	GRAB	6/5/2023 15:25	GF00917-02	GW		X	-02
3	G307	GRAB	6/5/2023 13:05	GF00917-03	GW		X	-03
4	G307D	GRAB	6/5/2023 14:20	GF00917-04	GW		X	-04
5	G306	GRAB	6/5/2023 15:43	GF00917-05	GW		X	-05
6	G152	GRAB	6/6/2023 10:43	GF00917-06	GW		X	-06
7	G153	GRAB	6/6/2023 12:20	GF00917-07	GW		X	-07
8	G154	GRAB	6/6/2023 13:45	GF00917-08	GW		X	-08
9	G271	GRAB	6/6/2023 11:16	GF00917-09	GW		X	-09
9	G305	GRAB	6/6/2023 9:58	GF00917-10	GW		X	-10
10	G405	GRAB	6/6/2023 13:07	GF00917-11	GW		X	-11

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	6/13/23 1250	Hailey Robertson	6/14/23 0900	Needs reported as 226, 228 and also combined 226/228
2					Include QC summary and edd
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

PH-10BDHJ321 TRC-21441
CR5-20221

L1622090

Pace Analytical®
www.pacelabs.com

Ship to :
Pace Analytical Services, LLC
1638 Roseytown Rd - Suites 2,3,4
Greensburg, PA 15601

(724)850-5600

INTER_LABORATORY WORK ORDER # GF00917
(To be complete by sending lab)

Sending Project No:	GF00917
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/12/2023
REQUESTED COMPLETION DATE:	7/3/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Coffeen
State of Sample Origin	IL	QC Deliverable	**STD Report**

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	**Container Type**	**Quantity of**	**Preservative**	**Quantity of**	**Unit Price**	**Amount**
Radium 226/228		11		11	$229.30	$2,522.30
		1		1	$0.00	$0.00
		1		1		$0.00
					TOTAL	$2,522.30

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Region Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	$2,522.30	$2,017.84	$504.46
		TOTAL	$2,017.84	$504.46

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: [ ] Yes [X] No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

Tracking Numbers	CBAT Temperature
6389 6000 4262	20.6±0=20.6
" " 4332	20.3±0=20.3
" " 4398	20.2±0=20.2
" " 4343	20.7±0=20.7
" " 4284	20.5±0=20.5

4/6/2023

ANALYTICAL REPORT

July 20, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1626086
Samples Received:	06/14/2023
Project Number:	GF01342
Description:	Vistra-Coffeen
Site:	001
Report To:	Gail Schindler 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

Haley Torrence
Project Manager

TABLE OF CONTENTS

SAMPLE SUMMARY

G301 L1626086-01 Non-Potable Water

Collected by | Collected date/time 06/06/23 16:38 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

G313 L1626086-02 Non-Potable Water

Collected by | Collected date/time 06/06/23 15:15 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 16:39	RGT	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

G313 DUP L1626086-03 Non-Potable Water

Collected by | Collected date/time 06/06/23 15:15 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

G402 L1626086-04 Non-Potable Water

Collected by | Collected date/time 06/06/23 16:05 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:57	RGT	Mt. Juliet, TN

G315 L1626086-05 Non-Potable Water

Collected by | Collected date/time 06/07/23 10:02 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

G403 L1626086-06 Non-Potable Water

Collected by | Collected date/time 06/07/23 11:25 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

G404 L1626086-07 Non-Potable Water

Collected by | Collected date/time 06/07/23 12:51 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G1001 L1626086-08 Non-Potable Water

Collected by | Collected date/time 06/07/23 10:24 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G401 L1626086-09 Non-Potable Water

Collected by | Collected date/time 06/07/23 11:58 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G155 L1626086-10 Non-Potable Water

Collected by | Collected date/time 06/07/23 10:08 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Haley Torrence
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-1.73	U	0.485	0.910	07/14/2023 16:39	WG2090394
(T) Barium	*70.7*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*91.3*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.0829	U	0.524	0.970	07/14/2023 16:39	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.0829	U	0.199	0.336	07/11/2023 19:56	WG2090952
(T) Barium-133	*82.5*			*30.0-143*	*07/11/2023 19:56*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.442	J	0.436	0.773	07/14/2023 16:39	WG2090394
(T) Barium	*68.6*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*105*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.879		0.534	0.843	07/14/2023 16:39	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.436		0.309	0.337	07/11/2023 19:56	WG2090952
(T) Barium-133	*92.0*			*30.0-143*	*07/11/2023 19:56*	WG2090952

G313 DUP SAMPLE RESULTS - 03

Collected date/time: 06/06/23 15:15 L1626086

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.251	U	0.389	0.691	07/14/2023 16:39	WG2090394
(T) Barium	*76.5*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*105*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.325	J	0.431	0.755	07/14/2023 16:39	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0742	U	0.185	0.305	07/11/2023 19:56	WG2090952
(T) Barium-133	*96.5*			*30.0-143*	*07/11/2023 19:56*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.848		0.400	0.697	07/14/2023 16:39	WG2090394
(T) Barium	*66.1*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*102*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.22		0.461	0.723	07/14/2023 16:39	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.377		0.230	0.192	07/11/2023 19:57	WG2090952
(T) Barium-133	*87.9*			*30.0-143*	*07/11/2023 19:57*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.221	U	0.362	0.647	07/14/2023 16:39	WG2090394
(T) Barium	*72.4*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*98.8*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.344	J	0.388	0.672	07/14/2023 16:39	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.123	J	0.141	0.180	07/11/2023 19:56	WG2090952
(T) Barium-133	*93.5*			*30.0-143*	*07/11/2023 19:56*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.750		0.333	0.580	07/14/2023 16:39	WG2090394
(T) Barium	*77.0*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*95.6*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.910		0.387	0.644	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.160	J	0.198	0.279	07/12/2023 09:41	WG2091007
(T) Barium-133	*101*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.982		0.243	0.404	07/14/2023 16:39	WG2090394
(T) Barium	*74.4*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*105*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.36		0.371	0.514	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.376		0.280	0.318	07/12/2023 09:41	WG2091007
(T) Barium-133	*93.7*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.292	U	0.376	0.683	07/14/2023 16:39	WG2090394
(T) Barium	*75.7*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*108*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.917		0.546	0.744	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.917		0.396	0.296	07/12/2023 09:41	WG2091007
(T) Barium-133	*106*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-0.133	U	0.312	0.569	07/14/2023 16:39	WG2090394
(T) Barium	*76.5*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*106*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.628	J	0.465	0.665	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.628		0.345	0.344	07/12/2023 09:41	WG2091007
(T) Barium-133	*94.9*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.618	J	0.487	0.861	07/14/2023 16:39	WG2090394
(T) Barium	*74.8*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*102*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.30		0.739	1.08	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.687		0.556	0.651	07/12/2023 09:41	WG2091007
(T) Barium-133	*45.4*			*30.0-143*	*07/12/2023 09:41*	WG2091007

QUALITY CONTROL SUMMARY

L1626086-01,02,03,04,05,06,07,08,09,10

Method Blank (MB)

(MB) R3949806-1 07/14/23 16:39

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	-0.0717	U	0.214	0.391
(T) Barium	*75.2*		*75.2*	
(T) Yttrium	*103*		*103*	

L1626087-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1626087-01 07/14/23 16:39 • (DUP) R3949806-5 07/14/23 16:39

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-228	0.0607	0.339	0.611	0.575	0.509	0.611	1	162	0.841	J	20	3
(T) Barium	*75.6*			*73.0*	*73.0*							
(T) Yttrium	*99.0*			*106*	*106*							

Laboratory Control Sample (LCS)

(LCS) R3949806-2 07/14/23 16:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	5.82	116	80.0-120	
(T) Barium			*78.0*		
(T) Yttrium			*95.3*		

L1626083-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626083-15 07/14/23 16:39 • (MS) R3949806-3 07/14/23 16:39 • (MSD) R3949806-4 07/14/23 16:39

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-228	10.0	1.14	13.2	13.1	120	120	1	70.0-130			0.304		20
(T) Barium		*66.6*			*75.7*	*76.3*							
(T) Yttrium		*116*			*116*	*116*							

Method Blank (MB)

(MB) R3947847-1 07/11/23 15:40

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	-0.00573	U	0.0205	0.0441
(T) Barium-133	*105*		*105*	

L1626086-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1626086-03 07/11/23 19:56 • (DUP) R3947847-5 07/11/23 19:56

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.0742	0.185	0.305	0.0779	0.108	0.305	1	4.84	0.0172	J	20	3
(T) Barium-133	*96.5*			*95.9*	*95.9*							

Laboratory Control Sample (LCS)

(LCS) R3947847-2 07/11/23 19:56

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.42	88.1	80.0-120	
(T) Barium-133			*82.9*		

L1626083-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626083-11 07/11/23 19:56 • (MS) R3947847-3 07/11/23 19:56 • (MSD) R3947847-4 07/11/23 19:56

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	-0.0479	18.2	18.3	91.2	91.5	1	75.0-125			0.274		20
(T) Barium-133		*94.2*			*101*	*103*							

Method Blank (MB)

(MB) R3947927-1 07/12/23 09:41

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	0.0193	U	0.0480	0.0791
(T) Barium-133	*99.3*		*99.3*	

L1626090-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1626090-11 07/12/23 09:42 • (DUP) R3947927-5 07/12/23 09:41

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.147	0.146	0.169	0.00608	0.205	0.169	1	184	0.560	U	20	3
(T) Barium-133	*106*			*98.7*	*98.7*							

Laboratory Control Sample (LCS)

(LCS) R3947927-2 07/12/23 09:41

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.58	91.3	80.0-120	
(T) Barium-133			*103*		

L1626086-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626086-07 07/12/23 09:41 • (MS) R3947927-3 07/12/23 09:41 • (MSD) R3947927-4 07/12/23 09:41

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.376	18.6	19.0	91.2	93.3	1	75.0-125			2.23		20
(T) Barium-133		*93.7*			*94.0*	*93.5*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

A100

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Workorder: GF01342 **Workorder Name:** Vistra - Coffeen

Owner Received Date: 6/7/2023

Results Requ By: 7/3/2023

Report To:	Subcontract To:
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis: Radium 226/228 <2	LAB USE ONLY
1	G301	GRAB	6/6/2023 16:38	GF01342-01	GW		X	L1676086 -01
2	G313	GRAB	6/6/2023 15:15	GF01342-02	GW		X	-02
3	G313 DUP	GRAB	6/6/2023 15:15	GF01342-03	GW		X	-03
4	G402	GRAB	6/6/2023 16:05	GF01342-04	GW		X	-04
5	G315	GRAB	6/7/2023 10:02	GF01342-05	GW		X	-05
6	G403	GRAB	6/7/2023 11:25	GF01342-06	GW		X	-06
7	G404	GRAB	6/7/2023 12:51	GF01342-07	GW		X	-07
8	G1001	GRAB	6/7/2023 10:24	GF01342-08	GW		X	-08
9	G401	GRAB	6/7/2023 11:58	GF01342-09	GW		X	-09
10	G155	GRAB	6/7/2023 10:08	GF01342-10	GW		X	-10

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	[signature]	6/13/23 1250	Hailey Batura	6/14/23 0900	Needs reported as 226, 228 and also combined 226/228 Include QC summary and edd
2					
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Sample Receipt Checklist

COC Seal Present/Intact:	Y N	If Applicable	
COC Signed/Accurate:	Y N	VOA Zero Headspace:	Y N
Bottles arrive intact:	Y N	Pres.Correct/Check:	Y N
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

PH-10BDH432: TRC-21222-81
CR6-20221V

L1621086

Pace Analytical®
www.pacelabs.com

Ship to :
Pace Analytical Services, LLC
1638 Roseytown Rd - Suites 2,3,4
Greensburg, PA 15601

(724)850-5600

INTER_LABORATORY WORK ORDER # GF01342
(To be complete by sending lab)

Sending Project No:	GF01342
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/12/2023
REQUESTED COMPLETION DATE:	7/3/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Coffeen
State of Sample Origin	IL	QC Deliverable	**STD Report**

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	**Container Type**	**Quantity of**	**Preservative**	**Quantity of**	**Unit Price**	**Amount**
Radium 226/228		10		10	$229.30	$2,293.00
		1		1	$0.00	$0.00
		1		1		$0.00
					TOTAL	$2,293.00

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Reqion Department	**Acctg. Code**	**Totals from above**	**Revenue Allocation**	
			Receiving Region (80%)	Client Services Dept.
radiological	38	$2,293.00	$1,834.40	$458.60
		TOTAL	$1,834.40	$458.60

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: [ ] Yes [X] No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

Tracking Numbers	GBAT Temperature
6319 6000 4262	20.6±0=20.6
" " 4332	20.3±0=20.3
" " 4398	20.2±0=20.2
" " 4343	20.7±0=20.7
" " 4284	20.5±0=20.5

LL0210686

ANALYTICAL REPORT

July 19, 2023

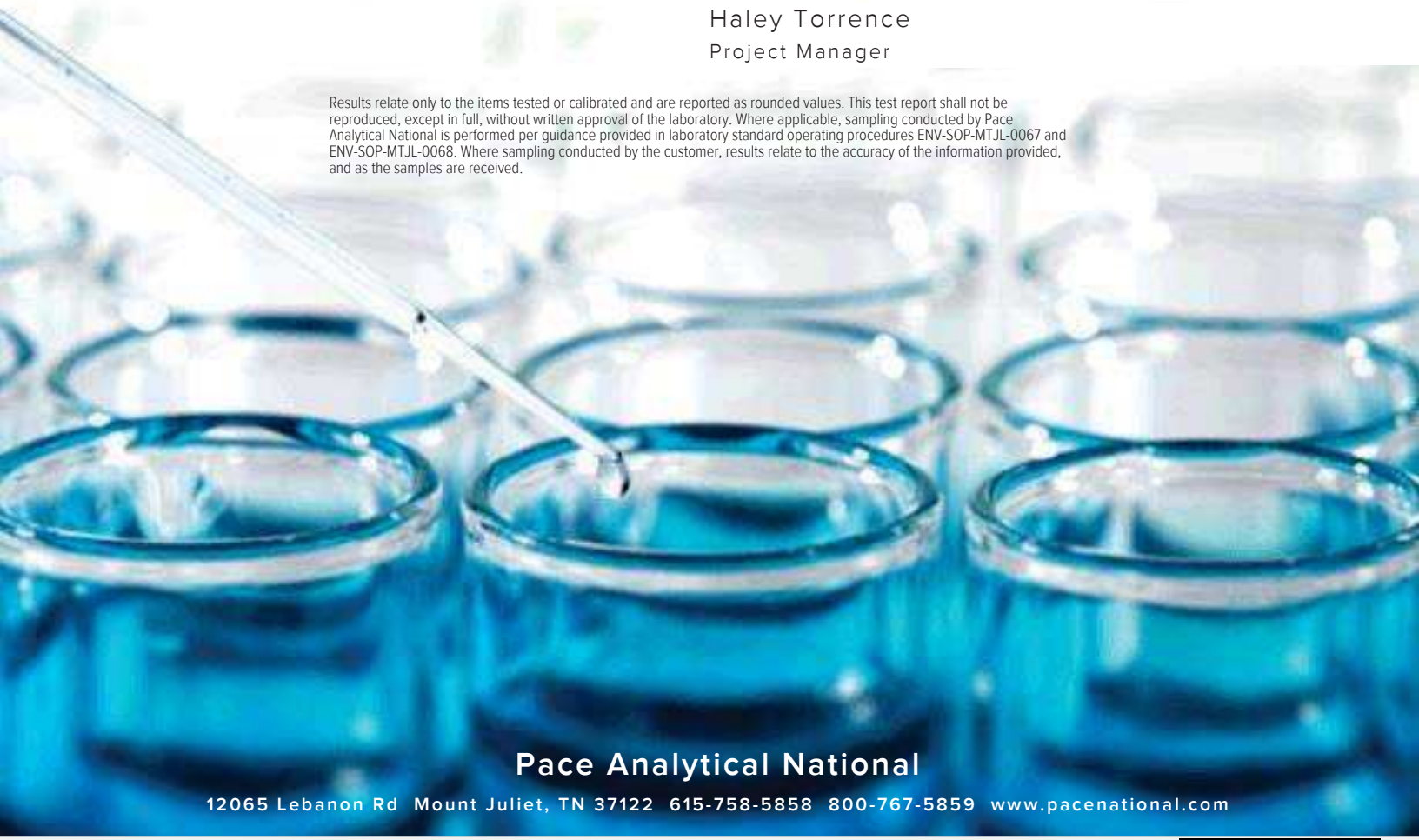
Pace IR - Peoria, IL

Sample Delivery Group:	L1626083
Samples Received:	06/14/2023
Project Number:	GF01733
Description:	Vistra-Coffeen
Site:	001
Report To:	Gail Schindler 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By:

Haley Torrence

Haley Torrence
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

SAMPLE SUMMARY

G212 L1626083-01 Non-Potable Water

Collected by | Collected date/time 06/07/23 15:35 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G213 L1626083-02 Non-Potable Water

Collected by | Collected date/time 06/07/23 16:49 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G200 L1626083-03 Non-Potable Water

Collected by | Collected date/time 06/07/23 17:23 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

EB-01 L1626083-04 Non-Potable Water

Collected by | Collected date/time 06/07/23 17:55 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G275 L1626083-05 Non-Potable Water

Collected by | Collected date/time 06/08/23 12:00 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/13/23 20:53	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G275 DUP L1626083-06 Non-Potable Water

Collected by | Collected date/time 06/08/23 12:00 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G275D L1626083-07 Non-Potable Water

Collected by | Collected date/time 06/08/23 13:13 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G280 L1626083-08 Non-Potable Water

Collected by | Collected date/time 06/08/23 09:25 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G283 L1626083-09 Non-Potable Water

Collected by | Collected date/time 06/08/23 14:32 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G285 L1626083-10 Non-Potable Water

Collected by | Collected date/time 06/08/23 13:53 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090830	1	07/07/23 15:45	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090830	1	07/07/23 15:45	07/10/23 21:49	RGT	Mt. Juliet, TN

G281 L1626083-11 Non-Potable Water

Collected by | Collected date/time 06/08/23 13:48 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

G270 L1626083-12 Non-Potable Water

Collected by | Collected date/time 06/08/23 09:54 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

SAMPLE SUMMARY

G284 L1626083-13 Non-Potable Water

Collected by | Collected date/time 06/08/23 15:16 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

G217 L1626083-14 Non-Potable Water

Collected by | Collected date/time 06/08/23 16:56 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090017	1	07/06/23 09:51	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 10:35	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

R201 L1626083-15 Non-Potable Water

Collected by | Collected date/time 06/07/23 15:40 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2090952	1	07/10/23 12:04	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2090952	1	07/10/23 12:04	07/11/23 19:56	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Haley Torrence

Haley Torrence
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.187	U	0.415	0.777	07/13/2023 20:53	WG2090017
(T) Barium	*81.4*			*30.0-143*	*07/13/2023 20:53*	WG2090017
(T) Yttrium	*105*			*30.0-136*	*07/13/2023 20:53*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.194	U	0.446	0.838	07/13/2023 20:53	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.00696	U	0.164	0.314	07/10/2023 21:49	WG2090830
(T) Barium-133	*105*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0797	U	0.293	0.556	07/13/2023 20:53	WG2090017
(T) Barium	*67.7*			*30.0-143*	*07/13/2023 20:53*	WG2090017
(T) Yttrium	*110*			*30.0-136*	*07/13/2023 20:53*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.399	J	0.394	0.642	07/13/2023 20:53	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.319	J	0.264	0.321	07/10/2023 21:49	WG2090830
(T) Barium-133	*110*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.20		0.495	0.869	07/13/2023 20:53	WG2090017
(T) Barium	*58.5*			*30.0-143*	*07/13/2023 20:53*	WG2090017
(T) Yttrium	*114*			*30.0-136*	*07/13/2023 20:53*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	4.48		0.736	0.893	07/13/2023 20:53	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	2.29		0.545	0.205	07/10/2023 21:49	WG2090830
(T) Barium-133	*128*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.350	J	0.261	0.484	07/13/2023 20:53	WG2090017
(T) Barium	*77.7*			*30.0-143*	*07/13/2023 20:53*	WG2090017
(T) Yttrium	*113*			*30.0-136*	*07/13/2023 20:53*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.880		0.400	0.558	07/13/2023 20:53	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.530		0.303	0.278	07/10/2023 21:49	WG2090830
(T) Barium-133	*112*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.0751	U	0.346	0.650	07/13/2023 20:53	WG2090017
(T) Barium	*73.2*			*30.0-143*	*07/13/2023 20:53*	WG2090017
(T) Yttrium	*117*			*30.0-136*	*07/13/2023 20:53*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0751	U	0.388	0.749	07/13/2023 20:53	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	-0.121	U	0.175	0.373	07/10/2023 21:49	WG2090830
(T) Barium-133	*94.0*			*30.0-143*	*07/10/2023 21:49*	WG2090830

G275 DUP SAMPLE RESULTS - 06

Collected date/time: 06/08/23 12:00 L1626083

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	-0.903	U	0.449	0.848	07/14/2023 10:35	WG2090017
(T) Barium	*69.3*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*88.8*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.0267	U	0.473	0.893	07/14/2023 10:35	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.0267	U	0.149	0.279	07/10/2023 21:49	WG2090830
(T) Barium-133	*107*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.987		0.377	0.666	07/14/2023 10:35	WG2090017
(T) Barium	*73.2*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*94.0*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.34		0.459	0.730	07/14/2023 10:35	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.352		0.262	0.298	07/10/2023 21:49	WG2090830
(T) Barium-133	*103*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.118	U	0.384	0.704	07/14/2023 10:35	WG2090017
(T) Barium	*79.7*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*81.4*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.839		0.524	0.764	07/14/2023 10:35	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.721		0.357	0.296	07/10/2023 21:49	WG2090830
(T) Barium-133	*123*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	2.22		0.428	0.720	07/14/2023 10:35	WG2090017
(T) Barium	*67.0*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*88.0*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	2.88		0.547	0.791	07/14/2023 10:35	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.664		0.341	0.327	07/10/2023 21:49	WG2090830
(T) Barium-133	*107*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	2.82		0.289	0.423	07/14/2023 10:35	WG2090017
(T) Barium	*70.9*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*103*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	3.10		0.378	0.516	07/14/2023 10:35	WG2090830

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.277	J	0.243	0.296	07/10/2023 21:49	WG2090830
(T) Barium-133	*126*			*30.0-143*	*07/10/2023 21:49*	WG2090830

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.000	U	0.397	0.728	07/14/2023 10:35	WG2090017
(T) Barium	*73.4*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*96.1*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.000	U	0.405	0.769	07/14/2023 10:35	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	-0.0479	U	0.0794	0.249	07/11/2023 19:56	WG2090952
(T) Barium-133	*94.2*			*30.0-143*	*07/11/2023 19:56*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	-1.16	U	0.371	0.726	07/14/2023 10:35	WG2090017
(T) Barium	*74.0*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*79.6*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.485	J	0.471	0.772	07/14/2023 10:35	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.485		0.290	0.263	07/11/2023 19:56	WG2090952
(T) Barium-133	*88.3*			*30.0-143*	*07/11/2023 19:56*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.512	J	0.366	0.660	07/14/2023 10:35	WG2090017
(T) Barium	*74.8*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*92.6*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	1.01		0.488	0.742	07/14/2023 10:35	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.497		0.323	0.339	07/11/2023 19:56	WG2090952
(T) Barium-133	*95.9*			*30.0-143*	*07/11/2023 19:56*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-228	0.435	J	0.410	0.741	07/14/2023 10:35	WG2090017
(T) Barium	*70.6*			*30.0-143*	*07/14/2023 10:35*	WG2090017
(T) Yttrium	*86.9*			*30.0-136*	*07/14/2023 10:35*	WG2090017

Radiochemistry by Method Calculation

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
Combined Radium	0.574	J	0.445	0.778	07/14/2023 10:35	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result pCi/l	Qualifier	Uncertainty + / -	MDA pCi/l	Analysis Date date / time	Batch
RADIUM-226	0.140	J	0.173	0.238	07/11/2023 19:56	WG2090952
(T) Barium-133	*91.2*			*30.0-143*	*07/11/2023 19:56*	WG2090952

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.14		0.416	0.719	07/14/2023 16:39	WG2090394
(T) Barium	*66.6*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*116*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.50		0.501	0.778	07/14/2023 16:39	WG2090952

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.360		0.279	0.297	07/11/2023 19:56	WG2090952
(T) Barium-133	*84.3*			*30.0-143*	*07/11/2023 19:56*	WG2090952

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

QUALITY CONTROL SUMMARY

L1626083-01,02,03,04,05,06,07,08,09,10,11,12,13,14

Method Blank (MB)

(MB) R3949552-1 07/13/23 20:53

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	0.147	U	0.176	0.329
(T) Barium	*80.6*		*80.6*	
(T) Yttrium	*104*		*104*	

L1626083-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1626083-01 07/13/23 20:53 • (DUP) R3949552-5 07/13/23 20:53

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.187	0.415	0.777	-0.452	0.532	0.777	1	200	0.946	U	20	3
(T) Barium	*81.4*			*69.6*	*69.6*							
(T) Yttrium	*105*			*114*	*114*							

Laboratory Control Sample (LCS)

(LCS) R3949552-2 07/13/23 20:53

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.49	110	80.0-120	
(T) Barium			*76.9*		
(T) Yttrium			*119*		

L1624831-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1624831-18 07/13/23 20:53 • (MS) R3949552-3 07/13/23 20:53 • (MSD) R3949552-4 07/13/23 20:53

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	16.7	0.226	21.7	18.5	129	109	1	70.0-130			16.0		20
(T) Barium		*79.7*			*76.7*	*80.8*							
(T) Yttrium		*121*			*107*	*117*							

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

QUALITY CONTROL SUMMARY

L1626083-15

Method Blank (MB)

(MB) R3949806-1 07/14/23 16:39

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-228	-0.0717	U	0.214	0.391
(T) Barium	*75.2*		*75.2*	
(T) Yttrium	*103*		*103*	

L1626087-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1626087-01 07/14/23 16:39 • (DUP) R3949806-5 07/14/23 16:39

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-228	0.0607	0.339	0.611	0.575	0.509	0.611	1	162	0.841	J	20	3
(T) Barium	*75.6*			*73.0*	*73.0*							
(T) Yttrium	*99.0*			*106*	*106*							

Laboratory Control Sample (LCS)

(LCS) R3949806-2 07/14/23 16:39

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-228	5.00	5.82	116	80.0-120	
(T) Barium			*78.0*		
(T) Yttrium			*95.3*		

L1626083-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626083-15 07/14/23 16:39 • (MS) R3949806-3 07/14/23 16:39 • (MSD) R3949806-4 07/14/23 16:39

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-228	10.0	1.14	13.2	13.1	120	120	1	70.0-130			0.304		20
(T) Barium		*66.6*			*75.7*	*76.3*							
(T) Yttrium		*116*			*116*	*116*							

Method Blank (MB)

(MB) R3947945-1 07/10/23 21:49

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / - pCi/l	MB MDA pCi/l
Radium-226	0.00648	U	0.0284	0.0563
(T) Barium-133	*98.6*		*98.6*	

L1624825-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1624825-03 07/10/23 21:49 • (DUP) R3947945-5 07/10/23 21:49

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	1.08	0.405	0.264	1.13	0.413	0.264	1	5.17	0.0985		20	3
(T) Barium-133	*88.8*			*75.1*	*75.1*							

Laboratory Control Sample (LCS)

(LCS) R3947945-2 07/10/23 21:49

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.90	97.8	80.0-120	
(T) Barium-133			*93.2*		

L1624825-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1624825-08 07/10/23 21:49 • (MS) R3947945-3 07/10/23 21:49 • (MSD) R3947945-4 07/10/23 21:49

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.351	16.6	19.0	81.1	93.4	1	75.0-125			13.9		20
(T) Barium-133		*97.6*			*71.4*	*63.9*							

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

QUALITY CONTROL SUMMARY

L1626083-11,12,13,14,15

Method Blank (MB)

(MB) R3947847-1 07/11/23 15:40

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-226	-0.00573	U	0.0205	0.0441
(T) Barium-133	*105*		*105*	

L1626086-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1626086-03 07/11/23 19:56 • (DUP) R3947847-5 07/11/23 19:56

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-226	0.0742	0.185	0.305	0.0779	0.108	0.305	1	4.84	0.0172	J	20	3
(T) Barium-133	*96.5*			*95.9*	*95.9*							

Laboratory Control Sample (LCS)

(LCS) R3947847-2 07/11/23 19:56

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-226	5.01	4.42	88.1	80.0-120	
(T) Barium-133			*82.9*		

L1626083-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626083-11 07/11/23 19:56 • (MS) R3947847-3 07/11/23 19:56 • (MSD) R3947847-4 07/11/23 19:56

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-226	20.0	-0.0479	18.2	18.3	91.2	91.5	1	75.0-125			0.274		20
(T) Barium-133		*94.2*			*101*	*103*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

A099

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Owner Received Date: 6/9/2023
Results Requested By: 7/3/2023

Workorder: GF01733 Workorder Name: Vistra - Coffeen

Report To:	Subcontract To:
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122

Requested Analysis: Radium 226/228 <2

L1626083

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Radium 226/228	LAB USE ONLY
1	G212	GRAB	6/7/2023 15:35	GF01733-01	GW		X	-01
2	G213	GRAB	6/7/2023 16:49	GF01733-02	GW		X	-02
3	G200	GRAB	6/7/2023 17:23	GF01733-03	GW		X	-03
4	EB-01	GRAB	6/7/2023 17:55	GF01733-04	GW		X	-04
5	G275	GRAB	6/8/2023 12:00	GF01733-05	GW		X	-05
6	G275 DUP	GRAB	6/8/2023 12:00	GF01733-06	GW		X	-06
7	G275D	GRAB	6/8/2023 13:13	GF01733-07	GW		X	-07
8	G280	GRAB	6/8/2023 9:25	GF01733-08	GW		X	-08
9	G283	GRAB	6/8/2023 14:32	GF01733-09	GW		X	-09
10	G285	GRAB	6/8/2023 13:53	GF01733-10	GW		X	-10

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	[signature]	6/13/23 1250	Hailey Roberts	6/14/23 0900	Needs reported as 226, 228 and also combined 226/228 Include QC summary and edd
2					
3					

Cooler Temperature on Receipt ______ °C | Custody Seal (Y) or N | Received on Ice Y or (N) | Sample Intact (Y) or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

PH-10BDH4321 TRC-4 'As:4'
CR6-20221V

Sample Receipt Checklist

COC Seal Present/Intact: Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
RAD Screen <0.5 mR/hr: Y N

If Applicable
VOA Zero Headspace: Y N
Pres.Correct/Check: Y N

Internal Transfer Chain of Custody

Pace Analytical®
www.pacelabs.com

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Workorder: GF01733 **Workorder Name:** Vistra - Coffeen

Owner Received Date: 6/9/2023

Results Requ By: 7/3/2023

Report To:	Subcontract To:
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis: Radium 226/228	LAB USE ONLY
1	G281	GRAB	6/8/2023 13:48	GF01733-11	GW		X	-11
2	G270	GRAB	6/8/2023 9:54	GF01733-12	GW		X	-12
3	G284	GRAB	6/8/2023 15:16	GF01733-13	GW		X	-13
4	G217	GRAB	6/8/2023 16:56	GF01733-14	GW		X	-14
5	R201	GRAB	6/7/2023 15:40	GF01733-15	GW		X	-15
6								
7								
8								
9								
10								

LL6210083

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1			Hailey Robertson	6/14/23 0900	Needs reported as 226, 228 and also combined 226/228 Include QC summary and edd
2					
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

L1627083

Pace Analytical
www.pacelabs.com

Ship to :
Pace Analytical Services, LLC
1638 Roseytown Rd - Suites 2,3,4
Greensburg, PA 15601

(724)850-5600

INTER_LABORATORY WORK ORDER # GF01733
(To be complete by sending lab)

Sending Project No:	GF01733
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/12/2023
REQUESTED COMPLETION DATE:	7/3/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Coffeen
State of Sample Origin	IL	QC Deliverable	**STD Report**

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	**Container Type**	**Quantity of**	**Preservative**	**Quantity of**	**Unit Price**	**Amount**
Radium 226/228		15		15	$229.30	$3,439.50
		1		1	$0.00	$0.00
		1		1		$0.00
					TOTAL	$3,439.50

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Reqion Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	$3,439.50	$2,751.60	$687.90
		TOTAL	$2,751.60	$687.90

* Custom Revenue Allocation

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: [ ] Yes [X] No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.

When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

L16260083

Tracking Numbers	GBAT Temperature
6319 6000 4262	20.6±0=20.6
" " 4332	20.3±0=20.3
" " 4398	20.2±0=20.2
" " 4343	20.7±0=20.7
" " 4284	20.5±0=20.5

ANALYTICAL REPORT

July 19, 2023

Pace IR - Peoria, IL

Sample Delivery Group:	L1626087
Samples Received:	06/14/2023
Project Number:	GF01900
Description:	Vistra-Coffeen
Site:	001
Report To:	Gail Schindler 2231 W. Altorfer Drive Peoria, IL 61615

Entire Report Reviewed By: Haley Torrence

Haley Torrence
Project Manager

TABLE OF CONTENTS

SAMPLE SUMMARY

G206 L1626087-01 Non-Potable Water

Collected by | Collected date/time 06/09/23 13:20 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G206 DUP L1626087-02 Non-Potable Water

Collected by | Collected date/time 06/09/23 13:20 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G206D L1626087-03 Non-Potable Water

Collected by | Collected date/time 06/09/23 12:29 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

G209 L1626087-04 Non-Potable Water

Collected by | Collected date/time 06/09/23 09:44 | Received date/time 06/14/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method 904/9320	WG2090394	1	07/06/23 17:46	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method Calculation	WG2091007	1	07/10/23 16:29	07/14/23 16:39	SNR	Mt. Juliet, TN
Radiochemistry by Method SM7500Ra B M	WG2091007	1	07/10/23 16:29	07/12/23 09:41	RGT	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Haley Torrence
Project Manager

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0607	U	0.339	0.611	07/14/2023 16:39	WG2090394
(T) Barium	*75.6*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*99.0*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.227	U	0.385	0.656	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.166	J	0.182	0.240	07/12/2023 09:41	WG2091007
(T) Barium-133	*92.5*			*30.0-143*	*07/12/2023 09:41*	WG2091007

G206 DUP SAMPLE RESULTS - 02

Collected date/time: 06/09/23 13:20 L1626087

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	1.20		0.336	0.571	07/14/2023 16:39	WG2090394
(T) Barium	*74.6*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*105*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	1.79		0.519	0.704	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.589		0.396	0.412	07/12/2023 09:41	WG2091007
(T) Barium-133	*66.4*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.372	J	0.319	0.568	07/14/2023 16:39	WG2090394
(T) Barium	*71.7*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*121*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.701		0.380	0.591	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.330		0.206	0.164	07/12/2023 09:41	WG2091007
(T) Barium-133	*101*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Radiochemistry by Method 904/9320

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-228	0.0301	U	0.337	0.609	07/14/2023 16:39	WG2090394
(T) Barium	*74.4*			*30.0-143*	*07/14/2023 16:39*	WG2090394
(T) Yttrium	*114*			*30.0-136*	*07/14/2023 16:39*	WG2090394

Radiochemistry by Method Calculation

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
Combined Radium	0.292	J	0.407	0.665	07/14/2023 16:39	WG2091007

Radiochemistry by Method SM7500Ra B M

Analyte	Result	Qualifier	Uncertainty	MDA	Analysis Date	Batch
	pCi/l		+ / -	pCi/l	date / time	
RADIUM-226	0.262	J	0.229	0.267	07/12/2023 09:41	WG2091007
(T) Barium-133	*91.5*			*30.0-143*	*07/12/2023 09:41*	WG2091007

Method Blank (MB)

(MB) R3949806-1 07/14/23 16:39

Analyte	MB Result	MB Qualifier	MB Uncertainty	MB MDA
	pCi/l		+ / -	pCi/l
Radium-228	-0.0717	U	0.214	0.391
(T) Barium	*75.2*		*75.2*	
(T) Yttrium	*103*		*103*	

L1626087-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1626087-01 07/14/23 16:39 • (DUP) R3949806-5 07/14/23 16:39

Analyte	Original Result	Original Uncertainty	Original MDA	DUP Result	DUP Uncertainty	DUP MDA	Dilution	DUP RPD	DUP RER	DUP Qualifier	DUP RPD Limits	DUP RER Limit
	pCi/l	+ / -	pCi/l	pCi/l	+ / -	pCi/l		%			%	
Radium-228	0.0607	0.339	0.611	0.575	0.509	0.611	1	162	0.841	J	20	3
(T) Barium	*75.6*			*73.0*	*73.0*							
(T) Yttrium	*99.0*			*106*	*106*							

Laboratory Control Sample (LCS)

(LCS) R3949806-2 07/14/23 16:39

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	pCi/l	pCi/l	%	%	
Radium-228	5.00	5.82	116	80.0-120	
(T) Barium			*78.0*		
(T) Yttrium			*95.3*		

L1626083-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626083-15 07/14/23 16:39 • (MS) R3949806-3 07/14/23 16:39 • (MSD) R3949806-4 07/14/23 16:39

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	MS RER	RPD Limits
	pCi/l	pCi/l	pCi/l	pCi/l	%	%		%			%		%
Radium-228	10.0	1.14	13.2	13.1	120	120	1	70.0-130			0.304		20
(T) Barium		*66.6*			*75.7*	*76.3*							
(T) Yttrium		*116*			*116*	*116*							

Method Blank (MB)

(MB) R3947927-1 07/12/23 09:41

Analyte	MB Result pCi/l	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/l
Radium-226	0.0193	U	0.0480	0.0791
(T) Barium-133	*99.3*		*99.3*	

L1626090-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1626090-11 07/12/23 09:42 • (DUP) R3947927-5 07/12/23 09:41

Analyte	Original Result pCi/l	Original Uncertainty + / -	Original MDA pCi/l	DUP Result pCi/l	DUP Uncertainty + / -	DUP MDA pCi/l	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Radium-226	0.147	0.146	0.169	0.00608	0.205	0.169	1	184	0.560	U	20	3
(T) Barium-133	*106*			*98.7*	*98.7*							

Laboratory Control Sample (LCS)

(LCS) R3947927-2 07/12/23 09:41

Analyte	Spike Amount pCi/l	LCS Result pCi/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Radium-226	5.01	4.58	91.3	80.0-120	
(T) Barium-133			*103*		

L1626086-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1626086-07 07/12/23 09:41 • (MS) R3947927-3 07/12/23 09:41 • (MSD) R3947927-4 07/12/23 09:41

Analyte	Spike Amount pCi/l	Original Result pCi/l	MS Result pCi/l	MSD Result pCi/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	MS RER	RPD Limits %
Radium-226	20.0	0.376	18.6	19.0	91.2	93.3	1	75.0-125			2.23		20
(T) Barium-133		*93.7*			*94.0*	*93.5*							

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(T)	Tracer - A radioisotope of known concentration added to a solution of chemically equivalent radioisotopes at a known concentration to assist in monitoring the yield of the chemical separation.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Internal Transfer Chain of Custody

A101

State of Origin: IL
Cert. Needed: [X] YES [ ] NO

Pace Analytical® www.pacelabs.com

Workorder: GF01900 **Workorder Name:** Vistra - Coffeen

Owner Received Date: 6/9/2023 **Results Requ By:** 7/3/2023

Report To:	Subcontract To:
Gail Schindler Pace Analytical - IL/MO 2231 W. Altorfer Drive Peoria, IL 61615 800-752-6651	Pace Analytical - Mt Juliet 12065 Lebanon Rd Mt Juliet TN 37122

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Requested Analysis: Radium 226/228 47	LAB USE ONLY
1	G206	GRAB	6/9/2023 13:20	GF01900-01	GW		X	-01
2	G206 DUP	GRAB	6/9/2023 13:20	GF01900-02	GW		X	-02
3	G206D	GRAB	6/9/2023 12:29	GF01900-03	GW		X	-03
4	G209	GRAB	6/9/2023 9:44	GF01900-04	GW		X	-04
5								
6								
7								
8								
9								
10								

U621088

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	6/13/23 1250	Hailly Robertson	6/14/23 0900	Needs reported as 226, 228 and also combined 226/228 Include QC summary and edd
2					
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

FMT-ALL-C-002rev.00 24March2009

Sample Receipt Checklist

		If Applicable	
COC Seal Present/Intact:	Y N	VOA Zero Headspace:	Y N
COC Signed/Accurate:	Y N	Pres.Correct/Check:	Y N
Bottles arrive intact:	Y N		
Correct bottles used:	Y N		
Sufficient volume sent:	Y N		
RAD Screen <0.5 mR/hr:	Y N		

PH-10BDH432 TRC 2142111
CR6-20221Y

L1626087

Pace Analytical®
www.pacelabs.com

Ship to :
Pace Analytical Services, LLC
1638 Roseytown Rd - Suites 2,3,4
Greensburg, PA 15601

(724)850-5600

INTER_LABORATORY WORK ORDER # GF01900
(To be complete by sending lab)

Sending Project No:	GF01900
Receiving Project No:	
Check Box for Consolidated Invoice:	
Date Prepared:	6/12/2023
REQUESTED COMPLETION DATE:	7/3/2023

Sending Region	IR72-IL/MO	Sending Project Mgr.	Gail Schindler
Receiving Region	MT JULIET	External Client	Vistra - Coffeen
State of Sample Origin	IL	QC Deliverable	**STD Report**

All questions should be addressed to sending project manager.

Requested Reportable Units _____ Report Wet or Dry Weight? _____ Cert Needed: IL

WORK REQUESTED						
Method Description	**Container Type**	**Quantity of**	**Preservative**	**Quantity of**	**Unit Price**	**Amount**
Radium 226/228		4		4	$229.30	$917.20
						$0.00
						$0.00
					TOTAL	$917.20

Special Requirements: Report as 226, 228 & combined 226/228. Include QC summary

Receiving Reqion Department	Acctg. Code	Totals from above	Revenue Allocation	
			Receiving Region (80%)	Client Services Dept.
radiological	38	$917.20	$733.76	$183.44
* Custom Revenue Allocation		TOTAL	$733.76	$183.44

FOR ANALYTICAL WORK COMPLETED THIS SECTION ALSO

Return Samples to Sending Region: [ ] Yes [X] No

CONFIRMATION OF WORK COMPLETED

Date Completed: _____ Receiving Project Manager: _____

Original sent to the receiving lab - Copy kept at the sending lab.
When work completed: Original sent to the ABM at the receiving laboratory. Copies are made to corporate as needed.

11/22/2007

Tracking Numbers	GBAT Temperature
6319 6008 4262	20.6±0=20.6
" " 4332	20.3±0=20.3
" " 4398	20.2±0=20.2
" " 4343	20.7±0=20.7
" " 4284	20.5±0=20.5

GF00140
VMW 6-1-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
								Requested Analysis Filtered (Y/N)																									
1	G101	WT		5/31/23	1352		4																								
2	G107				1419		4																								
3	G109				1530		4																								
4	G110				1445		4																								
5	G119				1024		4																								
6	G120				1020		4																								
7	G121				1120		4																								
8	G122				1126		4																								
9	G123				1220		4																								
10	G124				1250		4																								
11	G125				1310		4																								
12	G302				1600		13																								
13	G302 Dup				1600		13																								
14	G303				1723		13																								
15	G316				1033		13																								
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1	Joseph R Reed	6/1/23	1120		6/1/23	1105				
		6/1/23	1357		6/1/23	13:59	3.5	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Joe Reed

SIGNATURE of SAMPLER: Joseph R Reed

DATE Signed (MM/DD/YY): 6/1/23

GF00140
vmw 6-1-23

CHAIN-OF-CUSTODY / Analytical Request Document

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ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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)	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G406	WT		5/31/23	1645		14																								
2	G406 Dup				1645		14																								
3	G407				1409		14																								
4	G410				1327		6																								
5	G411				1200		6																								
6	G314D	WT		6/1/23	0938		13																								
7	G314	WT		6/1/23	1047		13																								
8	G218	WT	G	6/1/23	1112		15																								
9	G101 DUP	WT		5/31/23	1352		4																								
10	G124 DUP	WT		5/31/23	1250		4																								
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1		6/1/23	1106		6/1/23	1106				
		6/1/23	1353		6/1/23	13:59	3.5	Y	N	Y

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

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 6/1/23

YS 6-19-23

GF00140
VMW 6-1-23
6-1-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	Y/N	Analysis Test	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G214		G	6/1/23	1300		6																									
2	G111		G	6/1/23	1345		8																									
3	G310		G	6/1/23	1242		13																									
4	G312		G	6/1/23	1401		13																									
5	G279		G	6/1/23	1207		15																									
6	G277		G	6/1/23	1027		15																									
7	G111 DUP GS 6-19-23		G	6/1/23	1345		4																									
8																																
9																																
10																																
11																																
12																																
13																																
14																																
15																																
16																																

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1	Brenden Glenn	6/1/23	1645							
	GS 6-19-23			Grace Jackson	6/1/23	16:45	24.2	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Brenden Glenn

SIGNATURE of SAMPLER: Brenden Glenn DATE Signed (MM/DD/YY): 06/01/23

GF00247
VMW 6-2-23.

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: 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:	Project Manager:
Requested Due Date/TAT: 10 day	Project Number: 2285	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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G108	WT	G	6/1/23	1531		4																							
2	T127				1630		6																							
3	T128				1528		6																							
4	G151				1434		4																							
5	G215				1532		15																							
6	G308				1552		13																							
7	G310				1242		13																							
8	G312				1401		13																							
9																														
10																														
11																														
12																														
13																														
14																														
15																														
16																														

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1	Joseph R Rea	6/1/23	1935	Vince Wagner	6-2-23	700	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Joe Reed
SIGNATURE of SAMPLER: Joseph R Rea
DATE Signed (MM/DD/YY): 6/1/23

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES | GROUND WATER | DRINKING WATER
UST | RCRA | OTHER

Site Location STATE: IL

GP00917 gej

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED 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	Requested Analysis Filtered (Y/N): COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G210				6/5/23	1703		6	X	X	X		X																			
2	G216					1550		6	X	X	X		X																			
3	G211					1345		6	X	X	X		X																			
4	G276					1653		15	X	X	X		X																			
5	G273					1525		15	X	X	X		X																			
6	G307					1305		13	X	X	X																					
7	G307D					1420		13	X	X	X																					
8	G306					1543		13	X	X	X																					
9	G216 DUP					1550		6	X	X	X		X																			
10																																
11																																
12																																
13																																
14																																
15																																
16																																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1					6-6-23	1725	4.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: James David

SIGNATURE of SAMPLER: James David

DATE Signed (MM/DD/YY): 6/6/23

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

GF00917 ge

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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G103			6/6/23	1301		7																								
2	G152				1043		5																								
3	G153				1220		5																								
4	G154				1345		6																								
5	G271				1116		15																								
6	G305				958		13																								
7	G405				1307		14																								
8	XPW01				1105		12																								
9	XPW02				1213		9																								
10																															
11																															
12																															
13																															
14																															
15																															
16																															

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1										
				Van Wagner	6-6-23	1725	4.6	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 6/6/23

GFO1342
VMW 6-7-23

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, 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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G102	WT	G	6/6/23	1411		7	X	X	X		X																			
2	R104	WT	G	6/6/23	1519		7	X	X	X		X																			
3	G105	WT	G	6/6/23	1626		7	X	X	X		X																			
4	G301	WT	G	6/6/23	1638		13	X	X	X																					
5	G313	WT	G	6/6/23	1515		13	X	X	X																					
6	G313 DUP	WT	G	6/6/23	1515		13	X	X	X																					
7	G402	WT	G	6/6/23	1605		14	X	X	X		X																			
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

Requested Analysis Filtered (Y/N)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COF-23Q2 Rev 1		6/7/23	1351		6/7/23	1351				
		6/7/23	1702	Vera Wagner	6-7-23	1702	4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Aaron Ellenberger
SIGNATURE of SAMPLER:
DATE Signed (MM/DD/YY): 06/06/23

GF01342
Vmw 6-7-23

CHAIN-OF-CUSTODY / Analytical Request Document

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

ATTACHMENT B.
845 QUARTERLY REPORTS - QUARTER 2, 2023
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Section A Required Client Information:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G315	WT	G	6/7/23	1002		13	X	X	X																					
2	G403	WT	G	6/7/23	1125		14	X	X	X		X																			
3	G404	WT	G	6/7/23	1251		14	X	X	X		X																			
4	L201	WT	G	6/7/23	1329		21	X	X	X	X	X	X																		
5	G1001	WT	G	6/7/23	1024		13	X	X	X		X																			
6	G401	WT	G	6/7/23	1158		14	X	X	X		X																			
7	X201	WT	G	6/7/23	1236		12	X	X	X																					
8	G278	WT	G	6/7/23	1338		6	X	X	X		X																			
9	G208	WT	G	6/7/23	1352		6	X	X	X		X																			
10	G106	WT	G	6/7/23	1215		7	X	X	X		X																			
11	G126	WT	G	6/7/23	1100		4	X	X	X		X																			
12	G155	WT	G	6/7/23	1008		5	X	~~X~~	X		X																			
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
COF-23Q2 Rev 1		6/7/23	1701		6/7/23	1702	4.1
					6-7-23		

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:	Kyle Lane		4.1	Y	N	Y
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 6/7/23				

GF01733
VMW 6-9-23

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: 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:	Project Manager:
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

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

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	Y/N	Analysis Test	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G212			6/7/23	1535		15	X	X	X		X																				
2	G213				1649		15	X	X	X		X																				
3	G200				1723		15	X	X	X		X																				
4	R201				1540		15	X	X	X		X																				
5	EB-01				1755		15	X	X	X		X																				
6	G235			6/8/23	1200		15	X	X	X																						
7	G275 Dup				1200		15	X	X	X		X																				
8	G275D				1313		13	X	X	X																						
9	G280				0925		15	X	X	X		X																				
10	G283				1432		13	X	X	X																						
11	G285				1353		13	X	X	X																						
12	R205				1515		6	X	X	X		X																				
13	G281				1348		14	X	X	X		X																				
14	G272				1210		6	X	X	X		X																				
15	G274				1104		6	X	X	X		X																				
16	G270				0954		15	X	X	X		X																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1	James David	6/8/23	2055							
				Vern Wagner	6-9-23	650	4.2	Y	N	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	James David		
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY):	6/8/23

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

GF01733
VMW 6-9-23

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

Attention:	Jason Stuckey
Company Name:	Vistra Corp
Address:	see Section A
Quote Reference:	
Project Manager:	
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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G284			6/8/23	1516		13	X	X	X																					
2	G717			1	1656		15	X	X	X	X																				
3	NE Riser			1	1720		12	X	X	X																					
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			
COF-23Q2 Rev 1	James David	6/8/23	2055							
					6-9-23	650	4.2	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: James David

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 6/8/23

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:

Company:	Vistra Corp
Address:	13498 E. 900th St
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:	
Project Number:	2285

Section C Invoice Information:

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

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE: IL

6F01909

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

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	COF_257_101	COF_257_102	COF_257_103	COF_257_104	COF_257_105	COF_811_105	COF_845_101	COF_845_102	COF_845_103	COF_845_104	COF_SUP_000	COF_WPCP_102	COF_WPCP_103_104	COF_WPCP_106	Residual Chlorine (Y/N)	Project No./ Lab I.D.
1	G206	WT	G	6/14/23	1320		15	X	X	X		X																			
2	G206 Dup	WT	G	6/9/23	1320		15	X	X	X		X																			
3	G206D	WT	G	6/9/23	1229		13	X	X	X																					
4	G207	WT	G	6/9/23	1034		6	X	X	X		X																			
5	G209	WT	G	6/9/23	0944		15	X	X	X		X																			
6	EB02	WT	G	6/14/23	1343		6	X	X	X		X																			
7																															
8																															
9																															
10																															
11																															
12																															
13																															
14																															
15																															
16																															

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
COF-23Q2 Rev 1		6/9/23	1614		6-9-23	1614	Temp in °C: 3.1	Received on Ice (Y/N): Y	Custody Sealed Cooler (Y/N): N	Samples Intact (Y/N): Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Aaron Pemberton

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY): 06/09/23

ATTACHMENT C
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND
QUARTER 2, 2023

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G206	UA	E001	Antimony, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.003	0.003
G206	UA	E001	Arsenic, total	mg/L	11/18/15 - 06/09/23	19	71	CI around median	0.001	0.0110
G206	UA	E001	Barium, total	mg/L	11/18/15 - 06/09/23	19	3	CI around mean	0.0466	0.130
G206	UA	E001	Beryllium, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.001	0.001
G206	UA	E001	Boron, total	mg/L	11/18/15 - 06/09/23	26	78	CI around median	0.01	0.110
G206	UA	E001	Cadmium, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.001	0.001
G206	UA	E001	Chloride, total	mg/L	11/18/15 - 06/09/23	26	0	CB around linear reg	18.4	94.9
G206	UA	E001	Chromium, total	mg/L	11/18/15 - 06/09/23	19	84	CI around median	0.004	0.00960
G206	UA	E001	Cobalt, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.002	0.00370
G206	UA	E001	Fluoride, total	mg/L	11/18/15 - 06/09/23	27	5	CI around mean	0.378	0.552
G206	UA	E001	Lead, total	mg/L	11/18/15 - 06/09/23	19	93	CI around median	0.001	0.00590
G206	UA	E001	Lithium, total	mg/L	11/18/15 - 06/09/23	12	100	All ND - Last	0.02	0.02
G206	UA	E001	Mercury, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.0002	0.00110
G206	UA	E001	Molybdenum, total	mg/L	11/18/15 - 06/09/23	19	62	CB around T-S line	-0.000347	0.0440
G206	UA	E001	pH (field)	SU	11/18/15 - 06/09/23	28	0	CI around median	7.0/7.2	6.8/7.4
G206	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/18/15 - 06/09/23	12	0	CI around mean	0.409	1.48
G206	UA	E001	Selenium, total	mg/L	11/18/15 - 06/09/23	19	81	CI around median	0.001	0.00350
G206	UA	E001	Sulfate, total	mg/L	11/18/15 - 06/09/23	26	0	CI around mean	121	387
G206	UA	E001	Thallium, total	mg/L	11/18/15 - 06/09/23	19	100	All ND - Last	0.001	0.001
G206	UA	E001	Total Dissolved Solids	mg/L	11/18/15 - 06/09/23	26	0	CI around geomean	467	975
G206D	DA	E001	Antimony, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.003	0.003
G206D	DA	E001	Arsenic, total	mg/L	03/30/21 - 06/09/23	7	0	CI around geomean	0.00224	0.0110
G206D	DA	E001	Barium, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.0836	0.130
G206D	DA	E001	Beryllium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.001
G206D	DA	E001	Boron, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.11	0.110
G206D	DA	E001	Cadmium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.001
G206D	DA	E001	Chloride, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	27.9	94.9

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845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G206D	DA	E001	Chromium, total	mg/L	03/30/21 - 06/09/23	7	86	CI around median	0.004	0.00960
G206D	DA	E001	Cobalt, total	mg/L	03/30/21 - 06/09/23	7	86	CI around median	0.002	0.00370
G206D	DA	E001	Fluoride, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.581	0.552
G206D	DA	E001	Lead, total	mg/L	03/30/21 - 06/09/23	7	71	CI around median	0.001	0.00590
G206D	DA	E001	Lithium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.02	0.02
G206D	DA	E001	Mercury, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.0002	0.00110
G206D	DA	E001	Molybdenum, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	0.0187	0.0440
G206D	DA	E001	pH (field)	SU	03/30/21 - 06/09/23	7	0	CI around mean	7.0/7.5	6.8/7.4
G206D	DA	E001	Radium 226 + Radium 228, total	pCi/L	03/30/21 - 06/09/23	8	0	CI around mean	0.0872	1.48
G206D	DA	E001	Selenium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.00350
G206D	DA	E001	Sulfate, total	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	152	387
G206D	DA	E001	Thallium, total	mg/L	03/30/21 - 06/09/23	7	100	All ND - Last	0.001	0.001
G206D	DA	E001	Total Dissolved Solids	mg/L	03/30/21 - 06/09/23	7	0	CI around mean	738	975
G209	UA	E001	Antimony, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.003	0.003
G209	UA	E001	Arsenic, total	mg/L	11/18/15 - 06/09/23	19	45	CI around geomean	0.00114	0.0110
G209	UA	E001	Barium, total	mg/L	11/18/15 - 06/09/23	19	0	CI around mean	0.056	0.130
G209	UA	E001	Beryllium, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.001	0.001
G209	UA	E001	Boron, total	mg/L	11/18/15 - 06/09/23	26	57	CI around median	0.01	0.110
G209	UA	E001	Cadmium, total	mg/L	11/18/15 - 06/09/23	19	98	Most recent sample	0.001	0.001
G209	UA	E001	Chloride, total	mg/L	11/18/15 - 06/09/23	26	0	CI around median	61	94.9
G209	UA	E001	Chromium, total	mg/L	11/18/15 - 06/09/23	19	68	Most recent sample	0.004	0.00960
G209	UA	E001	Cobalt, total	mg/L	11/18/15 - 06/09/23	19	87	Most recent sample	0.002	0.00370
G209	UA	E001	Fluoride, total	mg/L	11/18/15 - 06/09/23	27	3	CI around mean	0.398	0.552
G209	UA	E001	Lead, total	mg/L	11/18/15 - 06/09/23	19	86	CI around median	0.001	0.00590
G209	UA	E001	Lithium, total	mg/L	11/18/15 - 06/09/23	12	100	All ND - Last	0.02	0.02
G209	UA	E001	Mercury, total	mg/L	11/18/15 - 06/09/23	19	97	Most recent sample	0.0002	0.00110
G209	UA	E001	Molybdenum, total	mg/L	11/18/15 - 06/09/23	19	10	CI around mean	0.00148	0.0440

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COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G209	UA	E001	pH (field)	SU	11/18/15 - 06/09/23	30	0	CI around mean	7.0/7.2	6.8/7.4
G209	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/18/15 - 06/09/23	12	0	CI around mean	0.48	1.48
G209	UA	E001	Selenium, total	mg/L	11/18/15 - 06/09/23	19	58	CI around median	0.001	0.00350
G209	UA	E001	Sulfate, total	mg/L	11/18/15 - 06/09/23	26	0	CB around T-S line	212	387
G209	UA	E001	Thallium, total	mg/L	11/18/15 - 06/09/23	19	94	Most recent sample	0.001	0.001
G209	UA	E001	Total Dissolved Solids	mg/L	11/18/15 - 06/09/23	26	0	CB around linear reg	802	975
G212	UA	E001	Antimony, total	mg/L	11/18/15 - 06/07/23	19	100	All ND - Last	0.003	0.003
G212	UA	E001	Arsenic, total	mg/L	11/18/15 - 06/07/23	19	83	CI around median	0.001	0.0110
G212	UA	E001	Barium, total	mg/L	11/18/15 - 06/07/23	19	0	CI around mean	0.0479	0.130
G212	UA	E001	Beryllium, total	mg/L	11/18/15 - 06/07/23	19	97	CI around median	0.001	0.001
G212	UA	E001	Boron, total	mg/L	11/18/15 - 06/07/23	26	82	CI around median	0.01	0.110
G212	UA	E001	Cadmium, total	mg/L	11/18/15 - 06/07/23	19	98	CI around median	0.001	0.001
G212	UA	E001	Chloride, total	mg/L	11/18/15 - 06/07/23	26	0	CB around linear reg	42.2	94.9
G212	UA	E001	Chromium, total	mg/L	11/18/15 - 06/07/23	19	84	Most recent sample	0.004	0.00960
G212	UA	E001	Cobalt, total	mg/L	11/18/15 - 06/07/23	19	97	Most recent sample	0.002	0.00370
G212	UA	E001	Fluoride, total	mg/L	11/18/15 - 06/07/23	26	13	CB around linear reg	0.156	0.552
G212	UA	E001	Lead, total	mg/L	11/18/15 - 06/07/23	19	83	CI around median	0.001	0.00590
G212	UA	E001	Lithium, total	mg/L	11/18/15 - 06/07/23	12	100	All ND - Last	0.02	0.02
G212	UA	E001	Mercury, total	mg/L	11/18/15 - 06/07/23	19	97	CI around median	0.0002	0.00110
G212	UA	E001	Molybdenum, total	mg/L	11/18/15 - 06/07/23	19	67	CI around median	0.001	0.0440
G212	UA	E001	pH (field)	SU	11/18/15 - 06/07/23	27	0	CI around mean	7.1/7.3	6.8/7.4
G212	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/18/15 - 06/07/23	12	0	CI around mean	0.316	1.48
G212	UA	E001	Selenium, total	mg/L	11/18/15 - 06/07/23	19	10	CB around linear reg	0.000213	0.00350
G212	UA	E001	Sulfate, total	mg/L	11/18/15 - 06/07/23	26	0	CI around mean	52.9	387
G212	UA	E001	Thallium, total	mg/L	11/18/15 - 06/07/23	19	97	CI around median	0.001	0.001
G212	UA	E001	Total Dissolved Solids	mg/L	11/18/15 - 06/07/23	26	0	CI around mean	378	975
G213	UA	E001	Antimony, total	mg/L	10/13/20 - 06/07/23	11	100	All ND - Last	0.003	0.003

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COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G213	UA	E001	Arsenic, total	mg/L	10/13/20 - 06/07/23	11	68	CI around median	0.001	0.0110
G213	UA	E001	Barium, total	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	0.0444	0.130
G213	UA	E001	Beryllium, total	mg/L	10/13/20 - 06/07/23	11	91	Most recent sample	0.001	0.001
G213	UA	E001	Boron, total	mg/L	10/13/20 - 06/07/23	11	88	CI around median	0.01	0.110
G213	UA	E001	Cadmium, total	mg/L	10/13/20 - 06/07/23	11	97	Most recent sample	0.001	0.001
G213	UA	E001	Chloride, total	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	41.1	94.9
G213	UA	E001	Chromium, total	mg/L	10/13/20 - 06/07/23	11	65	CI around median	0.004	0.00960
G213	UA	E001	Cobalt, total	mg/L	10/13/20 - 06/07/23	11	83	Most recent sample	0.002	0.00370
G213	UA	E001	Fluoride, total	mg/L	10/13/20 - 06/07/23	11	9	CI around mean	0.231	0.552
G213	UA	E001	Lead, total	mg/L	10/13/20 - 06/07/23	11	71	CI around median	0.001	0.00590
G213	UA	E001	Lithium, total	mg/L	02/15/23 - 06/07/23	2	100	Most recent sample	0.02	0.02
G213	UA	E001	Mercury, total	mg/L	10/13/20 - 06/07/23	11	100	All ND - Last	0.0002	0.00110
G213	UA	E001	Molybdenum, total	mg/L	10/13/20 - 06/07/23	11	85	Most recent sample	0.001	0.0440
G213	UA	E001	pH (field)	SU	10/13/20 - 06/07/23	11	0	CI around mean	6.9/7.3	6.8/7.4
G213	UA	E001	Radium 226 + Radium 228, total	pCi/L	02/15/23 - 06/07/23	2	0	Most recent sample	0.399	1.48
G213	UA	E001	Selenium, total	mg/L	10/13/20 - 06/07/23	11	17	CI around median	0.001	0.00350
G213	UA	E001	Sulfate, total	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	54.8	387
G213	UA	E001	Thallium, total	mg/L	10/13/20 - 06/07/23	11	96	Most recent sample	0.001	0.001
G213	UA	E001	Total Dissolved Solids	mg/L	10/13/20 - 06/07/23	11	0	CI around mean	360	975
G215	UA	E001	Antimony, total	mg/L	11/24/15 - 06/01/23	19	97	CI around median	0.003	0.003
G215	UA	E001	Arsenic, total	mg/L	11/24/15 - 06/01/23	19	21	CI around geomean	0.00474	0.0110
G215	UA	E001	Barium, total	mg/L	11/24/15 - 06/01/23	19	0	CB around linear reg	0.0068	0.130
G215	UA	E001	Beryllium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.001
G215	UA	E001	Boron, total	mg/L	11/24/15 - 06/01/23	27	26	CB around linear reg	0.527	0.110
G215	UA	E001	Cadmium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.001
G215	UA	E001	Chloride, total	mg/L	11/24/15 - 06/01/23	27	0	CB around T-S line	69	94.9
G215	UA	E001	Chromium, total	mg/L	11/24/15 - 06/01/23	19	90	Most recent sample	0.004	0.00960

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G215	UA	E001	Cobalt, total	mg/L	11/24/15 - 06/01/23	19	94	CI around median	0.002	0.00370
G215	UA	E001	Fluoride, total	mg/L	11/24/15 - 06/01/23	27	15	CB around T-S line	0.216	0.552
G215	UA	E001	Lead, total	mg/L	11/24/15 - 06/01/23	19	83	CI around median	0.001	0.00590
G215	UA	E001	Lithium, total	mg/L	11/24/15 - 06/01/23	12	100	All ND - Last	0.02	0.02
G215	UA	E001	Mercury, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.0002	0.00110
G215	UA	E001	Molybdenum, total	mg/L	11/24/15 - 06/01/23	19	95	CI around median	0.001	0.0440
G215	UA	E001	pH (field)	SU	11/24/15 - 06/01/23	28	0	CI around mean	6.9/7.1	6.8/7.4
G215	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/24/15 - 06/01/23	12	0	CI around mean	0.415	1.48
G215	UA	E001	Selenium, total	mg/L	11/24/15 - 06/01/23	19	90	CI around median	0.001	0.00350
G215	UA	E001	Sulfate, total	mg/L	11/24/15 - 06/01/23	27	0	CB around linear reg	468	387
G215	UA	E001	Thallium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.001
G215	UA	E001	Total Dissolved Solids	mg/L	11/24/15 - 06/01/23	27	0	CB around linear reg	1,150	975
G217	UA	E001	Antimony, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.003	0.003
G217	UA	E001	Arsenic, total	mg/L	10/14/20 - 06/08/23	11	82	CI around median	0.001	0.0110
G217	UA	E001	Barium, total	mg/L	10/14/20 - 06/08/23	11	0	CI around mean	0.0926	0.130
G217	UA	E001	Beryllium, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.001	0.001
G217	UA	E001	Boron, total	mg/L	10/14/20 - 06/08/23	11	74	CI around median	0.01	0.110
G217	UA	E001	Cadmium, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.001	0.001
G217	UA	E001	Chloride, total	mg/L	10/14/20 - 06/08/23	11	0	CB around linear reg	95.2	94.9
G217	UA	E001	Chromium, total	mg/L	10/14/20 - 06/08/23	11	68	Most recent sample	0.004	0.00960
G217	UA	E001	Cobalt, total	mg/L	10/14/20 - 06/08/23	11	86	Most recent sample	0.002	0.00370
G217	UA	E001	Fluoride, total	mg/L	10/14/20 - 06/08/23	11	14	CI around geomean	0.225	0.552
G217	UA	E001	Lead, total	mg/L	10/14/20 - 06/08/23	11	88	CI around median	0.001	0.00590
G217	UA	E001	Lithium, total	mg/L	02/15/23 - 06/08/23	2	100	Most recent sample	0.02	0.02
G217	UA	E001	Mercury, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.0002	0.00110
G217	UA	E001	Molybdenum, total	mg/L	10/14/20 - 06/08/23	11	85	Most recent sample	0.001	0.0440
G217	UA	E001	pH (field)	SU	10/14/20 - 06/08/23	11	0	CI around mean	6.8/7.0	6.8/7.4

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COFFEEN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
G217	UA	E001	Radium 226 + Radium 228, total	pCi/L	02/15/23 - 06/08/23	2	0	Most recent sample	0.574	1.48
G217	UA	E001	Selenium, total	mg/L	10/14/20 - 06/08/23	11	73	Most recent sample	0.001	0.00350
G217	UA	E001	Sulfate, total	mg/L	10/14/20 - 06/08/23	11	0	CB around linear reg	323	387
G217	UA	E001	Thallium, total	mg/L	10/14/20 - 06/08/23	11	100	All ND - Last	0.001	0.001
G217	UA	E001	Total Dissolved Solids	mg/L	10/14/20 - 06/08/23	11	0	CB around linear reg	943	975
G218	UA	E001	Antimony, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.003	0.003
G218	UA	E001	Arsenic, total	mg/L	11/24/15 - 06/01/23	19	24	CI around geomean	0.00126	0.0110
G218	UA	E001	Barium, total	mg/L	11/24/15 - 06/01/23	19	0	CB around linear reg	0.093	0.130
G218	UA	E001	Beryllium, total	mg/L	11/24/15 - 06/01/23	19	97	CI around median	0.001	0.001
G218	UA	E001	Boron, total	mg/L	11/24/15 - 06/01/23	26	78	CI around median	0.01	0.110
G218	UA	E001	Cadmium, total	mg/L	11/24/15 - 06/01/23	19	98	CI around median	0.001	0.001
G218	UA	E001	Chloride, total	mg/L	11/24/15 - 06/01/23	26	0	CI around median	83	94.9
G218	UA	E001	Chromium, total	mg/L	11/24/15 - 06/01/23	19	81	CI around median	0.004	0.00960
G218	UA	E001	Cobalt, total	mg/L	11/24/15 - 06/01/23	19	90	CI around median	0.002	0.00370
G218	UA	E001	Fluoride, total	mg/L	11/24/15 - 06/01/23	27	13	CI around mean	0.283	0.552
G218	UA	E001	Lead, total	mg/L	11/24/15 - 06/01/23	19	90	CI around median	0.001	0.00590
G218	UA	E001	Lithium, total	mg/L	11/24/15 - 06/01/23	12	100	All ND - Last	0.02	0.02
G218	UA	E001	Mercury, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.0002	0.00110
G218	UA	E001	Molybdenum, total	mg/L	11/24/15 - 06/01/23	19	86	CI around median	0.001	0.0440
G218	UA	E001	pH (field)	SU	11/24/15 - 06/01/23	28	0	CI around mean	6.9/7.1	6.8/7.4
G218	UA	E001	Radium 226 + Radium 228, total	pCi/L	11/24/15 - 06/01/23	12	0	CI around mean	0.628	1.48
G218	UA	E001	Selenium, total	mg/L	11/24/15 - 06/01/23	19	84	CI around median	0.001	0.00350
G218	UA	E001	Sulfate, total	mg/L	11/24/15 - 06/01/23	26	0	CB around linear reg	281	387
G218	UA	E001	Thallium, total	mg/L	11/24/15 - 06/01/23	19	100	All ND - Last	0.001	0.001
G218	UA	E001	Total Dissolved Solids	mg/L	11/24/15 - 06/01/23	27	0	CB around T-S line	756	975

ATTACHMENT C.
COMPARISON OF STATISTICAL RESULTS TO BACKGROUND - QUARTER 2, 2023
845 QUARTERLY REPORT
COFFEEN POWER PLANT
GMF GYPSUM STACK POND
COFFEEN, IL

Notes:
Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value
HSU = hydrostratigraphic unit:

DA = Deep Aquifer

UA = Uppermost Aquifer

mg/L = milligrams per liter
ND = non-detect
pCi/L = picocuries per liter
SU = standard units
Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result
Statistical Calculation = method used to calculate the statistical result:

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

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

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

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

Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range
For pH, the values presented are the lower / upper limits of the background determination