

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT FLY ASH LANDFILL JEFFREY ENERGY CENTER ST. MARYS, KANSAS

by Haley & Aldrich, Inc. Cleveland, Ohio

for Evergy Kansas Central, Inc. Topeka, Kansas

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This Annual Groundwater Monitoring and Corrective Action Report documents the groundwater monitoring program for the Jeffrey Energy Center Fly Ash Landfill (FAL) consistent with applicable sections of 257.90 through 257.98, and describes activities conducted in the prior calendar year (2023) and documents compliance with the U.S. Environmental Protection Agency Coal Combustion Residual Rule. I certify that the 2023 Annual Groundwater Monitoring and Corrective Action Report for the JEC FAL is, to the best of my knowledge, accurate and complete.

Signed:

Professional Geologist

Print Name: Mark Nicholls

Kansas License No.: Professional Geologist No. 881

Title: Principal Consultant Company: Haley & Aldrich, Inc.

HALEY ALDRICH

1. Introduction

This 2023 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) addresses the Fly Ash Landfill (FAL) at the Jeffrey Energy Center (JEC), operated by Evergy Kansas Central, Inc. (Evergy). This Annual Report was developed in accordance with the U.S. Environmental Protection Agency Coal Combustion Residual (CCR) Rule (Rule) effective October 19, 2015, including subsequent revisions, specifically Title 40 Code of Federal Regulations (40 CFR), subsection 257.90(e). The Annual Report documents the groundwater monitoring system for the FAL consistent with applicable sections of 257.90 through 257.98, and describes activities conducted in the prior calendar year (2023) and document compliance with the Rule. The specific requirements for the Annual Report listed in § 257.90(e)(1)-(5) of the Rule are provided in Sections 1 and 2 of this Annual Report and are in bold italic font, followed by a short narrative describing how each Rule requirement has been met.

1.1 40 CFR § 257.90(E)(6) SUMMARY

A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:

1.1.1 40 CFR § 257.90(e)(6)(i) – Initial Monitoring Program

At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

At the start of the current annual reporting period (January 1, 2023), the FAL was operating under an assessment monitoring program in compliance with 40 CFR § 257.95.

1.1.2 40 CFR § 257.90(e)(6)(ii) – Final Monitoring Program

At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95;

At the end of the current annual reporting period (December 31, 2023), the FAL was operating under an assessment monitoring program in compliance with 40 CFR § 257.95.

1.1.3 40 CFR § 257.90(e)(6)(iii) – Statistically Significant Increases

If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III to this part pursuant to § 257.94(e):

1.1.3.1 40 CFR § 257.90(e)(6)(iii)(a) – Statistically Significant Increase Constituents

Identify those constituents listed in Appendix III to this part and the names of the monitoring wells associated with such an increase; and



The FAL is operating under an assessment monitoring program; therefore, no statistical evaluations were completed on Appendix III constituents in 2023.

1.1.3.2 40 CFR § 257.90(e)(6)(iii)(b) – Initiation of Assessment Monitoring

Provide the date when the assessment monitoring program was initiated for the CCR unit.

An assessment monitoring program was initiated on July 17, 2018 for the FAL with a notification establishing assessment monitoring provided on August 15, 2018 to meet the requirements of 40 CFR § 257.95. The FAL remained in assessment monitoring in 2023.

1.1.4 40 CFR § 257.90(e)(6)(iv) – Statistically Significant Levels

If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in Appendix IV to this part pursuant to § 257.95(g) include all of the following:

1.1.4.1 40 CFR § 257.90(e)(6)(iv)(A) – Statistically Significant Level Constituents

Identify those constituents listed in Appendix IV to this part and the names of the monitoring wells associated with such an increase;

No statistically significant levels were identified above the groundwater protection standard for those constituents listed in Appendix IV to this part in 2023 for the FAL. The statistical evaluation reports for semi-annual assessment monitoring sampling events from September 2022 and March 2023 were completed in February 2023 and July 2023, respectively, and are included in Attachment 1.

1.1.4.2 40 CFR § 257.90(e)(6)(iv)(B) – Initiation of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was initiated for the CCR unit;

No assessment of corrective measures was required to be initiated in 2023 for this unit. The FAL remained in assessment monitoring during 2023.

1.1.4.3 40 CFR § 257.90(e)(6)(iv)(C) – Assessment of Corrective Measures Public Meeting

Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and

An assessment of corrective measures was not required for the FAL in 2023; therefore, a public meeting was not held.

1.1.4.4 40 CFR § 257.90(e)(6)(iv)(D) – Completion of the Assessment of Corrective Measures

Provide the date when the assessment of corrective measures was completed for the CCR unit.



No assessment of corrective measures was required to be initiated in 2023 for this unit. The FAL remained in assessment monitoring during 2023.

1.1.5 40 CFR § 257.90(e)(6)(v) – Selection of Remedy

Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and

The FAL remains in assessment monitoring, and no remedy was required to be selected.

1.1.6 40 CFR § 257.90(e)(6)(vi) – Remedial Activities

Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

No remedial activities were required in 2023.



2. 40 CFR § 257.90 Applicability

2.1 40 CFR § 257.90(a)

All CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under §§ 257.90 through 257.99, except as provided in paragraph (g) [Suspension of groundwater monitoring requirements] of this section.

Evergy has installed and certified a groundwater monitoring system at the JEC FAL. The FAL is subject to the groundwater monitoring and corrective action requirements described under 40 CFR §§ 257.90 through 257.98. This document addresses the requirement for the Owner/Operator to prepare an Annual Report per § 257.90(e).

2.2 40 CFR § 257.90(e) – SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).

This Annual Report describes monitoring completed and actions taken for the groundwater monitoring system at the JEC FAL as required by the Rule. Groundwater sampling and analysis was conducted in accordance with the requirements described in § 257.93, and the status of the groundwater monitoring program described in § 257.94 and § 257.95 is also provided in this report. This Annual Report documents the applicable groundwater-related activities completed in the calendar year 2023.

2.2.1 Status of the Groundwater Monitoring Program

The FAL remained in the assessment monitoring program during 2023.

2.2.2 Key Actions Completed

The 2022 Annual Groundwater Monitoring and Corrective Action Report was completed in January 2023. Statistical evaluation was completed in February 2023 on analytical data from the September 2021 semi-annual assessment monitoring sampling event.



A semi-annual assessment monitoring sampling event was completed in March 2023 for detected Appendix IV constituents identified from the June 2022 annual assessment monitoring sampling event. An additional sample from monitoring well MW-FAA-6 was collected in April 2023 to confirm analyte concentrations collected in March 2023. Statistical evaluation was completed in July 2023 on analytical data from the March 2023 semi-annual assessment monitoring sampling event.

An annual assessment monitoring sampling event was completed in June 2023 to identify detected Appendix IV constituents for subsequent semi-annual sampling events in September 2023 and planned for March 2024. Semi-annual assessment monitoring sampling was completed in September 2023 for detected Appendix IV constituents identified during the June 2023 annual monitoring event. Statistical evaluation of the results from the September 2023 semi-annual assessment monitoring sampling event are due to be completed in January 2024 and will be reported in the next annual report.

2.2.3 Problems Encountered

One problem encountered during groundwater monitoring activities in 2023 consisted of a laboratory analytical error during the March 2023 semi-annual detection monitoring sampling event that required a verification sample to be collected from monitoring well MW-FAA-6 in April 2023. This was the only issue that needed to be addressed at the FAL in 2023.

2.2.4 Actions to Resolve Problems

The resolution to problems encountered in 2023 included collection of a confirmation groundwater sample from MW-FAA-6, as described above. The analytical results for this sampling event were revised accordingly. No other problems were encountered at the FAL in 2023; therefore, no additional actions to resolve problems were required.

2.2.5 Project Key Activities for Upcoming Year

Key activities planned for 2024 include the completion of the 2023 Annual Groundwater Monitoring and Corrective Action Report, statistical evaluation of semi-annual assessment monitoring analytical data collected in September 2023, semi-annual assessment monitoring and subsequent statistical evaluations, and annual assessment monitoring.

2.3 40 CFR § 257.90(e) – INFORMATION

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.3.1 40 CFR § 257.90(e)(1)

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;



As required by § 257.90(e)(1), a map showing the locations of the CCR unit and associated upgradient and downgradient monitoring wells for the FAL is included in this report as Figure 1.

2.3.2 40 CFR § 257.90(e)(2) – Monitoring System Changes

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

No monitoring wells were installed or decommissioned during 2023.

2.3.3 40 CFR § 257.90(e)(3) – Summary of Sampling Events

In addition to all the monitoring data obtained under § 257.90 through § 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

In accordance with § 257.95(b) and § 257.95(d)(1), three independent assessment monitoring samples from each background and downgradient monitoring well were collected in 2023. A summary including sample names, dates of sample collection, field parameters, and monitoring data obtained for the groundwater monitoring program for the FAL is presented in Table I of this report, with corresponding laboratory analytical reports provided in Attachment 2. Groundwater potentiometric elevation contour maps, along with calculated groundwater flow rates and directions, associated with each groundwater monitoring sampling event in 2023 are provided in Figures 2 through 4.

2.3.4 40 CFR § 257.90(e)(4) – Monitoring Transition Narrative

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

The assessment monitoring program was initiated on July 17, 2018 with a notification establishing assessment monitoring provided on August 15, 2018 to meet the requirements of 40 CFR § 257.95. The FAL remained in assessment monitoring during 2023.

2.3.5 40 CFR § 257.90(e)(5) – Other Requirements

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

This Annual Report documents activities conducted to comply with §§ 257.90 through 257.95 of the Rule. It is understood that there are supplemental references in §§ 257.90 through 257.98 that must be placed in the Annual Report. The following requirements include relevant and required information in the Annual Report for activities completed in calendar year 2023.



2.3.5.1 40 CFR § 257.94(d)(3) – Demonstration for Alternative Detection Monitoring Frequency

The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).

An alternative groundwater detection monitoring sampling and analysis frequency has not been established for this CCR unit; therefore, no demonstration or certification is applicable.

2.3.5.2 40 CFR § 257.94(e)(2) – Detection Monitoring Alternate Source Demonstration

The owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. The owner or operator must complete the written demonstration within 90 days of detecting a statistically significant increase over background levels to include obtaining a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority verifying the accuracy of the information in the report. If a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under this section. If a successful demonstration is not completed within the 90-day period, the owner or operator of the CCR unit must initiate an assessment monitoring program as required under § 257.95. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

This unit is in assessment monitoring; therefore, no detection monitoring alternative source demonstration or certification is applicable.

2.3.5.3 40 CFR § 257.95(c)(3) – Demonstration for Alternative Assessment Monitoring Frequency

The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority stating that the demonstration for an alternative groundwater sampling and analysis frequency meets the requirements of this section. The owner or operator must include the demonstration providing the basis for the alternative monitoring frequency and the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority in the annual groundwater monitoring and corrective action report required by § 257.90(e).



An alternative groundwater assessment monitoring sampling and analysis frequency has not been established for this CCR unit; therefore, no demonstration or certification is applicable.

2.3.5.4 40 CFR § 257.95(d)(3) – Assessment Monitoring Concentrations and Groundwater Protection Standards

Include the recorded concentrations required by paragraph (d)(1) of this section, identify the background concentrations established under § 257.94(b), and identify the groundwater protection standards established under paragraph (d)(2) of this section in the annual groundwater monitoring and corrective action report required by § 257.90(e).

An assessment monitoring program has been implemented at the CCR unit since July 17, 2018. Three rounds of assessment monitoring sampling were completed in 2023. Analytical results for both downgradient and upgradient wells are provided in Table I. The background concentrations (upper tolerance limits) and groundwater protection standards established for detected Appendix IV constituents for the FAL are included in Table II. The background concentrations and groundwater protection standards provided in Table II were utilized for the statistical evaluations completed in 2023 for September 2022 and March 2023 semi-annual assessment monitoring sampling events, respectively.

2.3.5.5 40 CFR § 257.95(g)(3)(ii) – Assessment Monitoring Alternate Source Demonstration

Demonstrate that a source other than the CCR unit caused the contamination, or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Any such demonstration must be supported by a report that includes the factual or evidentiary basis for any conclusions and must be certified to be accurate by a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority. If a successful demonstration is made, the owner or operator must continue monitoring in accordance with the assessment monitoring program pursuant to this section, and may return to detection monitoring if the constituents in appendices III and IV to this part are at or below background as specified in paragraph (e) of this section. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

No assessment monitoring alternative source demonstration or certification was required in 2023. The FAL remained in assessment monitoring during 2023.

2.3.5.6 40 CFR § 257.96(a) – Demonstration for Additional Time for Assessment of Corrective Measures

Within 90 days of finding that any constituent listed in Appendix IV to this part has been detected at a statistically significant level exceeding the groundwater protection standard defined under § 257.95(h), or immediately upon detection of a release from a CCR unit, the owner or operator must initiate an assessment of corrective measures to prevent further releases, to remediate any releases and to restore affected area to original conditions. The assessment of corrective measures must be



completed within 90 days, unless the owner or operator demonstrates the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. The owner or operator must obtain a certification from a qualified professional engineer or approval from the Participating State Director or approval from EPA where EPA is the permitting authority attesting that the demonstration is accurate. The 90-day deadline to complete the assessment of corrective measures may be extended for no longer than 60 days. The owner or operator must also include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer or the approval from the Participating State Director or approval from EPA where EPA is the permitting authority.

No assessment of corrective measures was required to be initiated in 2023; therefore, no demonstration or certification is applicable for this unit.



TABLES

TABLE I

SUMMARY OF ANALYTICAL RESULTS - 2023 ANNUAL ASSESSMENT MONITORING

EVERGY KANSAS CENTRAL, INC. JEFFREY ENERGY CENTER, FLY ASH LANDFILL ST. MARYS, KANSAS

		Upgradient								Downgradient						A 6										
Location		MW-FAA-5 ¹				MW-FAA-3				MW	/-FAA-4			MW-	FAA-6											
Measure Point (TOC)		1250.80				1165.66				12	213.81			116	2.76											
Sample Name	MW-FAA-5-031423	MW FAA-5-060623	FAA-5-090623	MW-FAA-3-031423	MW FAA-3-060623	DUP JEC FAA-060623	FAA-3-090623	DUP-FAA-090623	MW-FAA-4-031423	DUP JEC FAA-031423	MW FAA-4-060623	FAA-4-090623	MW-FAA-6-031423	MW FAA-6-042723	MW FAA-6-060623	FAA-6-090623										
Sample Date	03/14/2023	06/06/2023	09/06/2023	03/14/2023	06/06/2023	06/06/2023	09/06/2023	09/06/2023	03/14/2023	03/14/2023	06/06/2023	09/06/2023	03/14/2023	04/27/2023	06/06/2023	09/06/2023										
Final Lab Report Date	3/28/2023	06/16/2023	9/22/2023	3/23/2023	06/16/2023	06/16/2023	9/22/2023	9/22/2023	3/23/2023	3/23/2023	06/16/2023	9/22/2023	3/23/2023	5/3/2023	06/16/2023	9/22/2023										
Final Lab Report Revision Date	4/10/2023	N/A	N/A	5/9/2023	N/A	N/A	10/4/2023	10/4/2023	5/9/2023	5/9/2023	N/A	10/4/2023	5/9/2023	N/A	N/A	10/4/2023										
Final Radiation Lab Report Date	3/30/2023	07/11/2023	10/6/2023	3/30/2023	07/11/2023	07/11/2023	10/6/2023	10/6/2023	3/30/2023	3/30/2023	07/11/2023	10/6/2023	3/30/2023	5/22/2023	07/11/2023	10/6/2023										
Final Radiation Lab Report Revision Date	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6/13/2023	N/A	N/A										
Lab Data Reviewed and Accepted	6/9/2023	08/02/2023	12/14/2023	6/9/2023	08/02/2023	08/02/2023	12/14/2023	12/14/2023	6/9/2023	6/9/2023	08/02/2023	12/14/2023	6/9/2023	6/9/2023	08/02/2023	12/14/2023										
Depth to Water (ft btoc)	87.19	86.85	87.07	13.99	13.11	-	15.24	15.24	56.93	-	57.68	58.84	16.12	15.26	14.24	17.39										
Temperature (Deg C)	7.81	17.71	15.94	14.43	20.91	-	18.57	-	13.19	-	20.96	20.44	14.93	17.21	22.91	18.71										
Conductivity (μS/cm)	338	3,540	3,740	1,650	1550	-	1270	-	1,650	-	1,490	748	2,370	2,070	2,330	1,380										
Turbidity (NTU)	7.6	19.2	0.0	3.0	3.8	-	0.9	-	1.0	-	0.0	0.0	2.3	0.0	0.5	2.1										
Dissolved Oxygen, Field (mg/L)	0.00	0.00	0.00	0.67	2.99	-	0.00	=	1.36	-	0.00	0.22	2.22	1.34	0.11	0.00										
ORP, Field (mV)	163	147	159	-17	-11	-	88	-	32	-	62	-36	-51	92	-12	-53										
pH, Field (su)	7.65	6.70	6.61	7.28	6.95	-	6.99	=	7.36	-	7.07	7.16	7.41	7.17	7.51	7.43										
Boron, Total (mg/L)	1.7	-	1.7	0.46	-	-	0.50	0.49	0.71	0.70	-	0.59	2.8	2.7	-	2.7										
Calcium, Total (mg/L)	523	-	542	205	-	-	232	228	178	178	-	198	107	104	-	117										
Chloride (mg/L)	77.4	-	115	119	-	-	128	126	92.9	94.4	-	105	79.2	77.6	-	67.4										
Fluoride (mg/L)	< 0.20	-	0.25	< 0.20	-	-	< 0.20	< 0.20	< 0.20	< 0.20	-	< 0.20	0.49	0.55	-	< 0.20										
Sulfate (mg/L)	2,080	-	2,120	478	-	-	532	537	473	467	-	454	1,220	985	-	731										
pH (su)	6.7	-	6.7	7.0	-	-	6.9	7.0	7.1	7.0	-	7.1	7.2	7.6	-	7.3										
TDS (mg/L)	3,270	-	3,270	1,210	-	-	1,330	1,320	1,610	1,380	-	1,270	1,930	1,700	-	2,080										
Antimony, Total (mg/L)	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010	-	-	-	-	< 0.0010	-	-	-	< 0.0010	-										
Arsenic (mg/L)	0.0054	0.0013	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0076	0.0084	0.0099	0.0085										
Barium, Total (mg/L)	0.011	< 0.0050	< 0.0050	0.031	0.035	0.031	0.033	0.033	0.045	0.045	0.050	0.051	0.028	0.040	0.021	0.027										
Beryllium, Total (mg/L)	< 0.0010	< 0.0010	<0.0010	-	< 0.0010	< 0.0010	-	-	-	-	< 0.0010	=	-	-	< 0.0010	-										
Cadmium, Total (mg/L)	< 0.00050	< 0.00050	<0.00050	-	< 0.00050	< 0.00050	-	-	-	-	< 0.00050	-	-	-	< 0.00050	-										
Chromium, Total (mg/L)	0.022	< 0.0050	<0.0050	-	< 0.0050	< 0.0050	-	=	-	-	< 0.0050	-	-	-	< 0.0050	-										
Cobalt, Total (mg/L)	0.0036	0.0031	0.0017	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0014	0.0014	< 0.0010	< 0.0010	0.0018	0.0017	0.0014	0.0012										
Lead, Total (mg/L)	< 0.010	< 0.010	<0.010	-	< 0.010	< 0.010	-	-	-	-	< 0.010	-	-	-	< 0.010	-										
Fluoride (mg/L)	< 0.20	< 0.20	0.25	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.49	0.55	< 0.20	< 0.20										
Lithium, Total (mg/L)	0.15	0.16	0.14	0.014	0.017	0.018	0.014	0.014	0.022	0.018	0.021	0.020	0.016	0.016	0.011	0.010										
Molybdenum, Total (mg/L)	0.022	0.022	0.019	0.0061	0.0057	0.0056	0.0064	0.0065	0.0093	0.0090	0.0071	0.0072	0.30	0.26	0.26	0.29										
Selenium, Total (mg/L)	< 0.0010	< 0.0010	<0.0010	< 0.0010	< 0.0010	< 0.0010		-	< 0.0010	< 0.0010	< 0.0010	-	0.0011	0.0010	< 0.0010	-										
Thallium, Total (mg/L)	< 0.0010	< 0.0010	<0.0010	-	< 0.0010	< 0.0010		-	-	-	< 0.0010	-	-	-	< 0.0010	-										
Mercury, Total (mg/L)	< 0.00020	< 0.00020	< 0.00020	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020			0.0003	0.00046	-		< 0.00020	< 0.00020										
Radium-226 & 228 Combined (pCi/L)	1.88 ± 0.970 (1.30)	1.80 ± 0.913 (1.27)	1.29 ± 1.09 (1.58)	0.669 ± 0.951 (2.03)	0.316 ± 0.724 (1.54)	0.668 ± 0.685 (1.44)	1.27 ± 0.999 (1.62)	0.445 ± 1.00 (1.97)	0.933 ± 0.843 (1.46)	0.496 ± 0.828 (1.60)	1.07 ± 0.740 (1.27)	0.701 ± 1.18 (2.37)	0.969 ± 0.850 (1.48)	0.000 ± 0.736 (2.00)	1.37 ± 0.837 (1.37)	0.0705 ± 0.896 (1.94)										
Notes:	•					•	•		•	•	•				•											

Notes:

Bold value: Detection above laboratory reporting limit or minimum detectable concentration (MDC).

Radiological results are presented as activity plus or minus uncertainty with MDC.

1 = Additional constituents provided in the laboratory report were utilized for analysis at other units and are not applicable to the current FAL groundwater monitoring program

μS/cm = micro Siemens per centimeter Deg C = degrees Celsius

ft btoc = feet below top of casing mg/L = milligrams per liter mV = millivolt

N/A = Not Applicable

NTU = Nephelometric Turbidity Unit ORP = oxidation reduction potential

pCi/L = picoCuries per liter su = standard unit TDS = total dissolved solids

TOC = top of casing



TABLE II

ASSESSMENT GROUNDWATER MONITORING - DETECTED APPENDIX IV GWPS

SEPTEMBER 2022 AND MARCH 2023 SAMPLING EVENTS JEFFREY ENERGY CENTER FLY ASH LANDFILL

ST. MARYS, KANSAS

Well Number	Background Value ¹	GWPS
	CCR Appendix-IV Arsenic, Total (mg	/L)
MW-FAA-5 (upgradient)	0.005	NA
MW-FAA-3		0.010
MW-FAA-4		0.010
MW-FAA-6		0.010
	CCR Appendix-IV Barium, Total (mg,	/L)
MW-FAA-5 (upgradient)	0.013	NA
MW-FAA-3		2
MW-FAA-4		2
MW-FAA-6		2
	CCR Appendix-IV Cobalt, Total (mg/	
MW-FAA-5 (upgradient)	0.005	NA
MW-FAA-3		0.006
MW-FAA-4		0.006
MW-FAA-6		0.006
	CCR Appendix-IV Fluoride, Total (mg	/L)
MW-FAA-5 (upgradient)	1.309	NA
MW-FAA-3		4.0
MW-FAA-4		4.0
MW-FAA-6		4.0
	CCR Appendix-IV Lithium, Total (mg	/L)
MW-FAA-5 (upgradient)	0.171	NA
MW-FAA-3		0.171
MW-FAA-4		0.171
MW-FAA-6		0.171
	CCR Appendix-IV Molybdenum, Total (ng/L)
MW-FAA-5 (upgradient)	0.056	NA
MW-FAA-3		0.100
MW-FAA-4		0.100
MW-FAA-6	0.871 ²	0.901
cc	R Appendix-IV Radium-226 & 228 Combir	ned (pCi/L)
MW-FAA-5 (upgradient)	2.187	NA
MW-FAA-3		5
MW-FAA-4		5
MW-FAA-6		5
	CCR Appendix-IV Selenium, Total (mg	g/L)
MW-FAA-5 (upgradient)	0.005	NA
MW-FAA-3		0.05
MW-FAA-4		0.05
MW-FAA-6		0.05

Notes:

CCR = coal combustion residuals

GWPS = groundwater protection standard

MCL = maximum contaminant level

mg/L = milligrams per liter

NA = Not Applicable

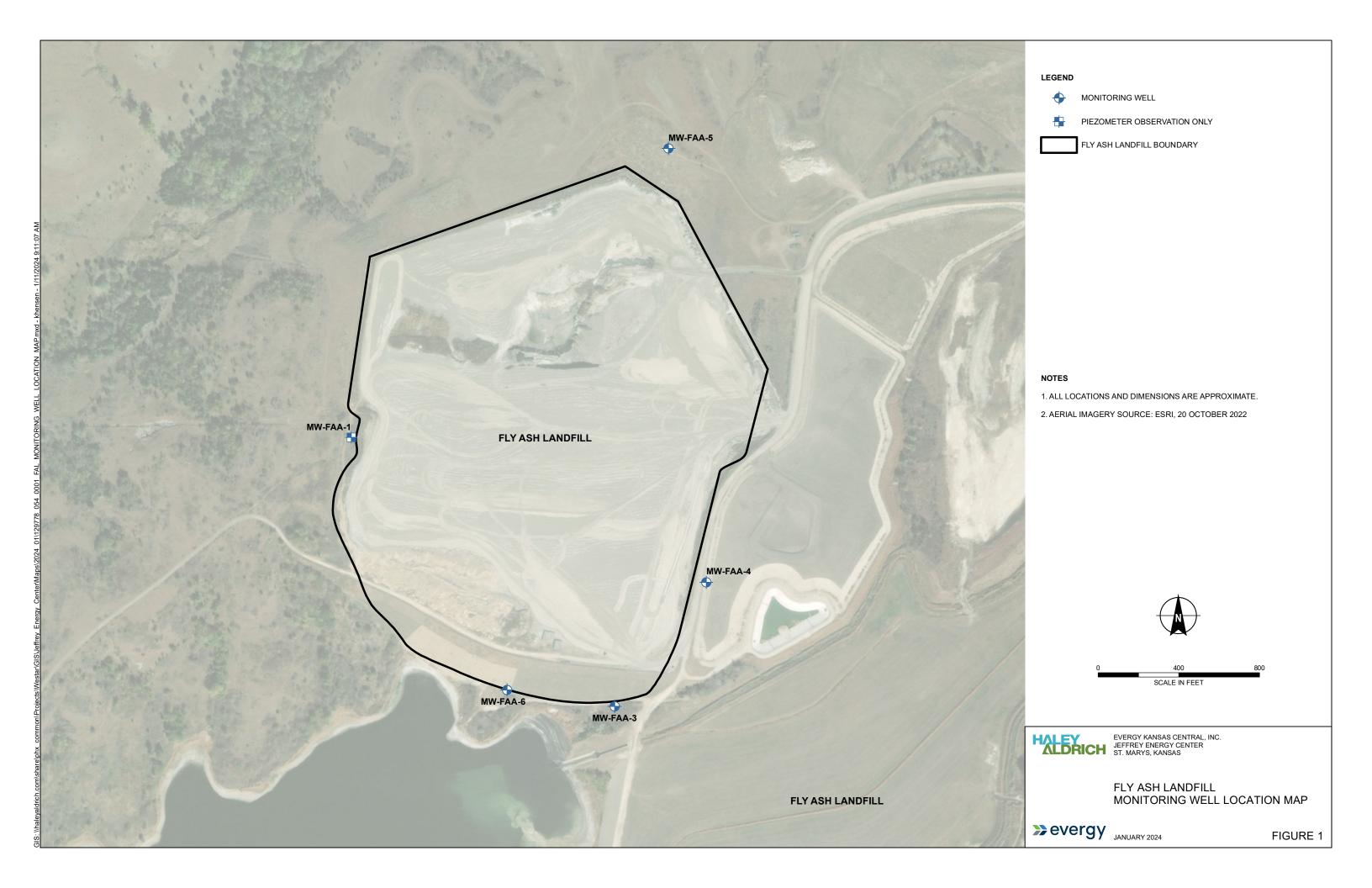
pCi/L = picoCuries per liter

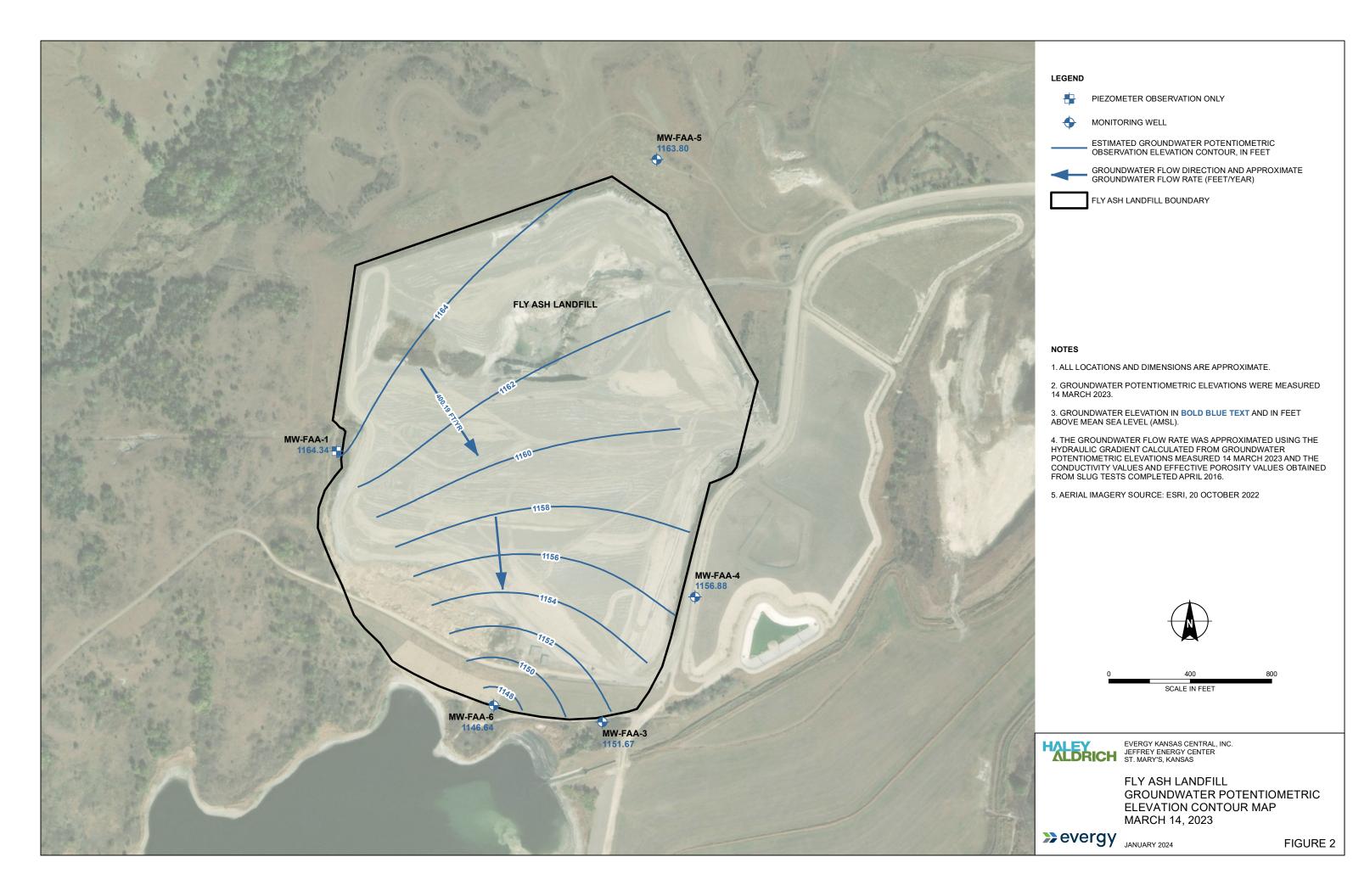


 $^{^{\}rm 1}$ Interwell background data collected from 08/19/2016 through 09/08/2022, unless otherwise noted.

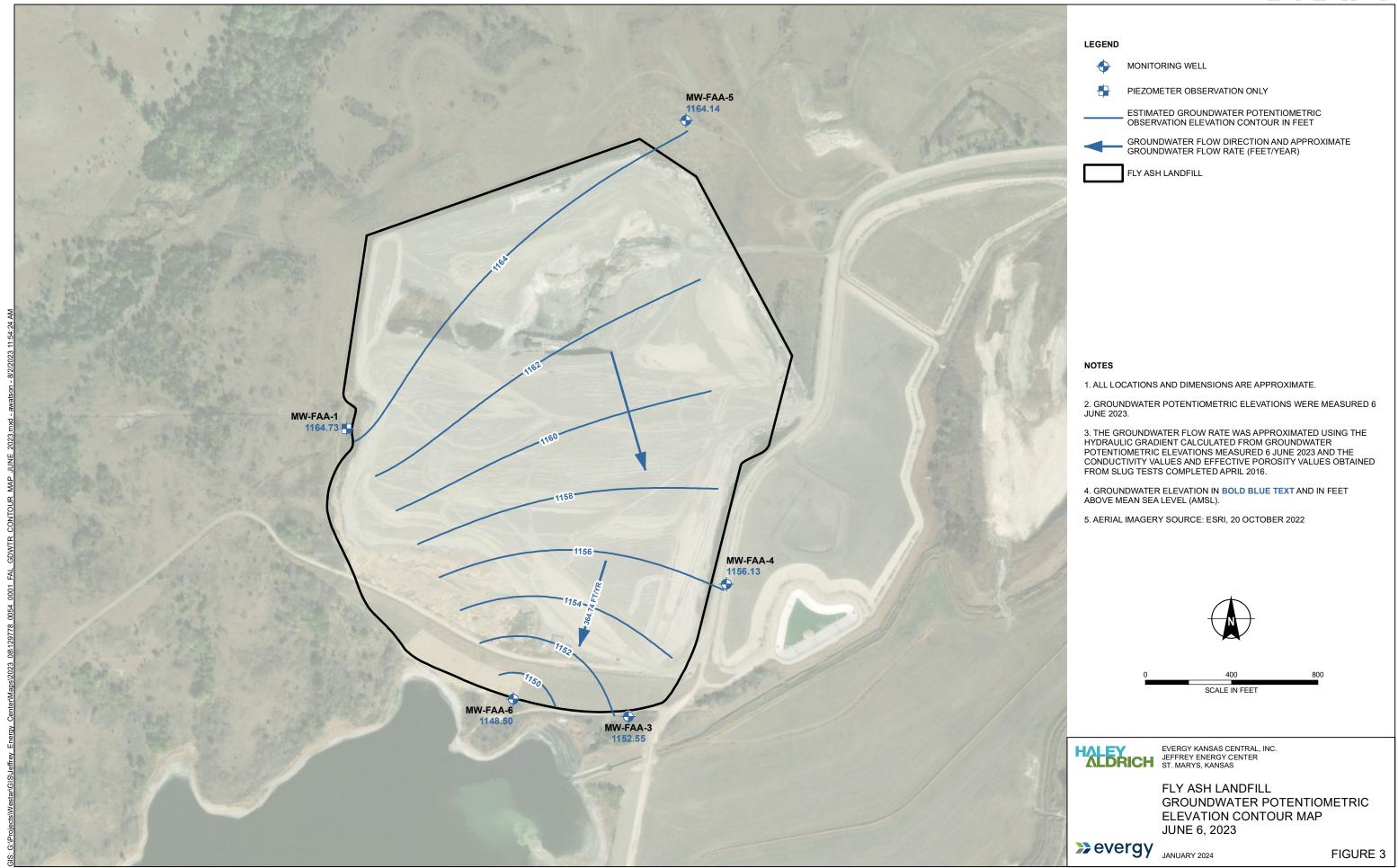
 $^{^{2}\,}$ Intrawell background data collected from 08/19/2016 through 03/09/2022.

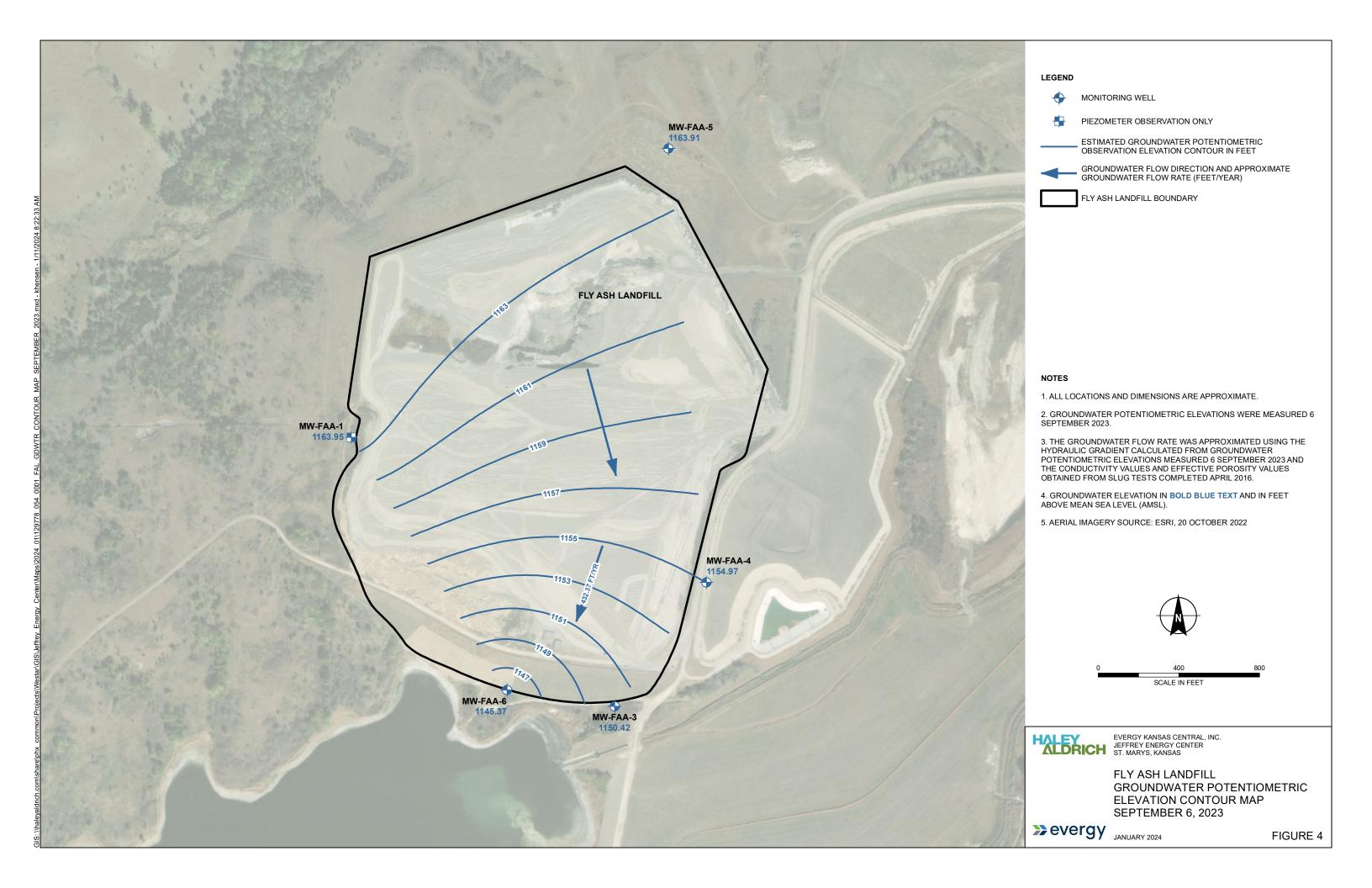
FIGURES





DRAFT





ATTACHMENT 1 Statistical Analyses

ATTACHMENT 1-1 September 2022 Semi-Annual Groundwater Assessment Monitoring Data Statistical Evaluation



HALEY & ALDRICH, INC. 6500 Rockside Road Suite 200 Cleveland, OH 44131 216.739.0555

TECHNICAL MEMORANDUM

January 31, 2024 File No. 129778-050

TO: Evergy Kansas Central, Inc.

Jared Morrison - Director, Water and Waste Programs

FROM: Haley & Aldrich, Inc.

Steven F. Putrich, P.E., Principal Consultant – Engineering Principal Mark Nicholls, P.G., Senior Associate – Senior Hydrogeologist

SUBJECT: September 2022 Semi-Annual Groundwater Assessment Monitoring Data

Statistical Evaluation

Completed February 1, 2023

Jeffrey Energy Center Fly Ash Landfill

Pursuant to Title 40 Code of Federal Regulations (40 CFR) §§ 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the **September 2022** semi-annual assessment monitoring groundwater sampling event for the Jeffrey Energy Center (JEC) Fly Ash Landfill (FAL). This semi-annual assessment monitoring groundwater sampling event was completed on **September 8, 2022**. All laboratory results were received and validated on **November 7, 2022**.

The statistical evaluation discussed in this memorandum was conducted to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at concentrations that represent a statistically significant increase (SSI) above background values and if one or more of the constituents have been detected at a statistically significant level (SSL) above the groundwater protection standard (GWPS) consistent with the requirements of the Rule. GWPSs for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, levels provided in 40 CFR § 257.95(h)(2) (from regional screening levels), or background concentrations.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR § 257.93(f)(1-4)). The statistical method used for these evaluations (tolerance limit [TL]) was certified by Haley & Aldrich, Inc. on January 14, 2019. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above background. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The most recent groundwater sampling event from each compliance well was compared to the corresponding background UTL to determine if a SSL existed.

Evergy Kansas Central, Inc. January 31, 2024 Page 2

STATISTICAL EVALUATION

Either an interwell or intrawell evaluation was used to determine SSIs. Interwell evaluation compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, and the intrawell evaluation compares the most recent values from each compliance well against a background dataset composed of its own historical data. Because the CCR unit has transitioned into assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The TL method was used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using a background dataset for all Appendix IV constituents that were detected in the annual assessment monitoring sample event using parametric TLs. If an Appendix IV constituent concentration from the **September 2022** sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent will be used to evaluate if a SSI is present. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location MW-FAA-5 (for interwell evaluation) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset were evaluated to determine the method for UTL calculation. Per the document, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance,* March 2009, background concentrations were updated based on statistical evaluation of analytical results collected through **September 2022** for **interwell evaluation**. Background concentrations were updated through **March 2022** for **intrawell evaluation**.



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RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

Sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the **September 2022** semi-annual assessment monitoring event were compared to their respective background UTLs and GWPSs (Table I). A sample concentration greater than the background UTL is considered to represent a SSI. A sample concentration greater than the GWPS is considered to represent a SSL. Based on previous compliance sampling events, statistical evaluations, and associated alternative source demonstrations, an intrawell comparison is utilized for FAA-6 for molybdenum statistical evaluations. Interwell comparisons are being utilized for all other well and constituent evaluations. The results of the groundwater assessment monitoring statistical evaluation are provided in Table I. **Based on this statistical evaluation of groundwater sampling data collected in September 2022, no SSLs above GWPS occurred at the JEC FAL.**

Attachments:

Table I – Summary of Semi-Annual Assessment Groundwater Monitoring Statistical Evaluation



TABLE

TABLE I

SUMMARY OF SEMI-ANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATION

SEPTEMBER 2022 SAMPLING EVENT JEFFREY ENERGY CENTER FLY ASH LANDFILL

Location Id Frequency Detection MW-FAA-5 (upgradient) 11/22 MW-FAA-3 3/22 MW-FAA-4 0/22 MW-FAA-6 22/22 MW-FAA-1 22/22 MW-FAA-2 22/22 MW-FAA-3 22/22 MW-FAA-6 22/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-1 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	Non-left	50% 0.00 86% 0.00 100% 0.00 0%	001-0.005 001-0.001 0005-0.001	0.0035 0.0011	1.196E-06 8.807E-10 1.136E-08 2.547E-06	Standard Deviation 0.001093 0.00002968	0.7241	CCR MCL or CFR § 257.95(h)(2)*	Report Result Unit	Number of Detection Exceedances	Number of Non- Detection	Outlier	Outlier	Trend	Dictribution McII	September 2022	Background Limits ¹	SSI	Background Limits ²	SSI	GWPS (Higher of MCL/	
MW-FAA-3 3/22 MW-FAA-4 0/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 4/22 MW-FAA-4 22/22 MW-FAA-6 22/22 MW-FAA-3 2/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-1 2/22 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 8 22 10 22 (22 8 22 8 22 (22 (86% 0.00 100% 0.00 0% 82% 0.00	001-0.001	0.0011	8.807E-10 1.136E-08	0.00002968					Exceedances	Presence	Removed	Henu	Distribution Well	Concentration (mg/L)	(UTL) mg/L	331	(UTL) mg/L		40 CFR § 257.95(h)(2) or UTL)	SSL
MW-FAA-3 3/22 MW-FAA-4 0/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 4/22 MW-FAA-3 22/22 MW-FAA-4 22/22 MW-FAA-6 22/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-6 21/22 MW-FAA-6 21/22 MW-FAA-6 21/22 MW-FAA-1 18/23 MW-FAA-2 19/23 MW-FAA-4 19/23 MW-FAA-4 23/23	22 8 22 10 22 (22 8 22 8 22 (22 (86% 0.00 100% 0.00 0% 82% 0.00	001-0.001	0.0011	8.807E-10 1.136E-08	0.00002968				CCR App	oendix-IV: Arse	nic, Total (n	ng/L)									
MW-FAA-4 0/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 4/22 MW-FAA-3 22/22 MW-FAA-6 22/22 MW-FAA-6 22/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-6 21/22 MW-FAA-6 21/22 MW-FAA-6 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 10 22 (22 (22 (22 (22 (0.00 0% 82% 0.0 0%	0005-0.001		1.136E-08		0.00000	0.01	mg/L	0	0	No	No	Stable	Non-parametric	< 0.0010	0.005				0.010	
MW-FAA-6 22/22 MW-FAA-5 (upgradient) 4/22 MW-FAA-3 22/22 MW-FAA-4 22/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-6 21/22 MW-FAA-6 21/22 MW-FAA-6 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 (22 (22 (22 (22 (22 (22 (22 (22 (22	0% 82% 0.0 0%	-	0.01		0.0004066	0.02969	0.01	mg/L	0	0	Yes	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-5 (upgradient) 4/22 MW-FAA-3 22/22 MW-FAA-4 22/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-5 (upgradient) 21/23 MW-FAA-6 23/23 MW-FAA-6 23/23	22 8 722 (722 (82% 0.C 0%		0.01	2 547F-06	0.0001066	0.1091	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-3 22/22 MW-FAA-4 22/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 (22 (0%	.005-0.01		2.J+/L-00	0.001596	0.2741	0.01	mg/L	0	0	No	No	Stable	Non-parametric	0.005		No				No
MW-FAA-3 22/22 MW-FAA-4 22/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 (22 (0%	.005-0.01							CCR App	endix-IV: Bari	um, Total (n	ng/L)									
MW-FAA-4 22/22 MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 (0.013	5.877E-06	0.002424	0.3848	2	mg/L	0	0	No	No	NT	Non-parametric	< 0.0050	0.013				2	
MW-FAA-6 22/22 MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23			-	0.047	0.00002411	0.00491	0.1548	2	mg/L	0	0	Yes	No	Decrease	Normal	0.030		Yes				No
MW-FAA-5 (upgradient) 17/22 MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 (0%	-	0.053	6.894E-06	0.002626	0.05324	2	mg/L	0	0	No	No	Stable	Normal	0.051		Yes				No
MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23		0%	-	0.067	0.0002865	0.01693	0.3879	2	mg/L	0	0	No	No	Decrease	Non-parametric	0.040		Yes				No
MW-FAA-3 2/22 MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23										CCR Ap	pendix-IV: Cob	alt, Total (m	ng/L)									
MW-FAA-4 9/22 MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 2	23% 0.00	001-0.005	0.0056	2.225E-06	0.001492	0.6147	0.006	mg/L	0	0	No	No	Increase	Normal	0.0033	0.0051				0.006	
MW-FAA-6 21/22 MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 9	91% 0.00	001-0.001	0.00058	1.762E-08	0.0001327	0.1384	0.006	mg/L	0	0	No	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-5 (upgradient) 21/23 MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22 5	59% 0.00	0005-0.001	0.0027	2.671E-07	0.0005168	0.3962	0.006	mg/L	0	0	No	No	Increase	NA	0.0018		No				No
MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23	22	5% 0.00	001-0.001	0.0021	1.111E-07	0.0003333	0.2303	0.006	mg/L	0	0	No	No	Increase	Normal	0.0019		No				No
MW-FAA-3 18/23 MW-FAA-4 19/23 MW-FAA-6 23/23										CCR A	Appendix-IV: F	luoride (mg/	/L)									
MW-FAA-4 19/23 MW-FAA-6 23/23	23	9% 0	0.2-0.2	1.6	0.103	0.321	0.4302	4	mg/L	0	0	Yes	No	Stable	Normal	< 0.20	1.31				4.0	
MW-FAA-6 23/23	23 2	22%	0.2-0.2	0.44	0.005497	0.07414	0.2378	4	mg/L	0	0	No	No	Stable	Normal	< 0.20		No				No
	23 1	17%	0.2-0.2	0.5	0.007286	0.08536	0.2563	4	mg/L	0	0	Yes	No	Stable	Normal	0.24		No				No
	23 (0%	-	1.2	0.04365	0.2089	0.268	4	mg/L	0	0	No	No	Stable	Normal	0.35		No				No
								·		CCR App	endix-IV: Lith	um, Total (n	ng/L)									
MW-FAA-5 (upgradient) 22/22	22 (0%	-	0.16	0.0007554	0.02748	0.2242	0.04	mg/L	22	0	No	No	Stable	Normal	0.160	0.171				0.171	
MW-FAA-3 18/22	22 1	18% 0.0	0.01-0.03	0.023	0.00002067	0.004546	0.2841	0.04	mg/L	0	0	Yes	No	Stable	Normal	0.016		No				No
MW-FAA-4 19/22	22 1	14% 0.0	0.01-0.03	0.024	0.00002051	0.004529	0.2561	0.04	mg/L	0	0	No	No	Increase	Normal	0.023		No				No
MW-FAA-6 15/22	22 3	32% 0.0	0.01-0.03	0.016	0.00002056	0.004535	0.3428	0.04	mg/L	0	0	Yes	No	Stable	Non-parametric	0.015		No				No
										CCR Appen	dix-IV: Molybo	lenum, Tota	l (mg/L)									
MW-FAA-5 (upgradient) 22/22	22 (0%	-	0.067	0.0002037	0.01427	0.4632	0.1	mg/L	0	0	No	No	Stable	Normal	0.026	0.056				0.100	
MW-FAA-3 22/22	22 (0%	-	0.014	6.035E-06	0.002457	0.2617	0.1	mg/L	0	0	No	No	Decrease	Normal	0.0082		No				No
MW-FAA-4 22/22	22 (0%	-	0.011	7.175E-06	0.002679	0.4882	0.1	mg/L	0	0	No	No	Increase	Increasing	0.0110		No				No
MW-FAA-6 22/22	22 (0%	-	0.59	0.01939	0.1392	0.3494	0.1	mg/L	22	0	No	No	Decrease	Normal	0.34		Yes	0.871	No	0.871	No
				·				· ·		CCR Apper	ndix-IV: Radiur	n-226 & 228	(pCi/L)									
MW-FAA-5 (upgradient) 19/22	22 1	14% 0.3	.374-1.26	2.43	0.283	0.5319	0.425	5	pCi/L	0	0	No	No	Stable	Normal	1.34	2.187				5	
MW-FAA-3 15/22	22 3	32% 0.2	246-0.857	1.792	0.1945	0.441	0.6892	5	pCi/L	0	0	Yes	No	Stable	Normal	0.246		No				No
MW-FAA-4 14/22	22 3	36% 0.00	0551-0.929	1.54	0.1606	0.4007	0.5957	5	pCi/L	0	0	No	No	Stable	Normal	0.00551		No				No
MW-FAA-6 13/22	22 4	41% 0.09	0926-0.58	1.43	0.1399	0.3741	0.6647	5	pCi/L	0	0	No	No	Stable	Normal	0.543		No				No
										CCR Appe	endix-IV: Seler	ium, Total (mg/L)									
MW-FAA-5 (upgradient) 7/22	22 6	68% 0.00	0005-0.005	0.0039	0.00000139	0.001179	0.7146	0.05	mg/L	0	0	No	No	NT	Normal	< 0.0010	0.005				0.050	
MW-FAA-3 0/22	22 10	100% 8.6E	E-05-0.001		4.736E-08	0.0002176	0.2326	0.05	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-4 7/22	22 6	68% 0.00	001-0.001	0.0019	5.333E-08	0.0002309	0.2099	0.05	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.0010		No				No
MW-FAA-6 9/22	22 5	59% 0.00	0005-0.001	0.014	7.734E-06	0.002781	1.53	0.05	mg/L	0	0	Yes	No	Increase	Non-parametric	0.0021		No				No

CCR = coal combustion residuals

GWPS = Groundwater Protection Standard

MCL = maximum contaminant level

mg/L = milligrams per Liter

NA = not analyzed

pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant level

UTL = upper tolerance limits



 $^{^{1}}$ Interwell background data collected from 08/19/2016 through 09/08/2022, unless otherwise noted.

² Intrawell background data collected from 08/19/2016 through 03/09/2022.

^{*} Values obtained from U.S. Environmental Protection Agency Federal CCR Rule Title 40 Code of Federal Regulations (CFR) § 257.95(h)(2)

ATTACHMENT 1-2 March 2023 Semi-Annual Groundwater Assessment Monitoring Data Statistical Evaluation





TECHNICAL MEMORANDUM

January 31, 2024 File No. 129778-050

TO: Evergy Kansas Central, Inc.

Jared Morrison – Director, Water and Waste Programs

FROM: Haley & Aldrich, Inc.

Steven F. Putrich, P.E., Principal Consultant – Engineering Principal Mark Nicholls, P.G., Senior Associate – Senior Hydrogeologist

SUBJECT: March 2023 Semi-Annual Groundwater Assessment Monitoring Data

Statistical Evaluation

Completed July 21, 2023

Jeffrey Energy Center
Fly Ash Landfill

Pursuant to Title 40 Code of Federal Regulations (40 CFR) §§ 257.93 and 257.95 (Rule), this memorandum summarizes the statistical evaluation of the analytical results for the **March 2023** semi-annual assessment monitoring groundwater sampling event for the Jeffrey Energy Center (JEC) Fly Ash Landfill (FAL). This semi-annual assessment monitoring groundwater sampling event was completed on **March 14, 2023**. Well MW-FAA-6 was resampled on April 27, 2023, to confirm the analytical concentration collected on March 14, 2023; the results were revised. All laboratory results were received and validated on **June 9, 2023**.

The statistical evaluation discussed in this memorandum was conducted to determine if Appendix IV groundwater monitoring constituents have been detected in downgradient wells at concentrations that represent a statistically significant increase (SSI) above background values and if one or more of the constituents have been detected at a statistically significant level (SSL) above the groundwater protection standard (GWPS) consistent with the requirements of the Rule. GWPSs for each of the Appendix IV constituents have been set equal to the highest value of the maximum contaminant level, levels provided in 40 CFR § 257.95(h)(2) (from regional screening levels), or background concentrations.

Statistical Evaluation of Appendix IV Constituents

The Rule provides four specific options for statistical evaluation of groundwater quality data collected at a coal combustion residual (CCR) unit (40 CFR § 257.93(f)(1-4)). The statistical method used for these evaluations (tolerance limit [TL]) was certified by Haley & Aldrich, Inc. on January 14, 2019. The TL method, as determined applicable for this sampling event, was used to evaluate potential SSLs above

Evergy Kansas Central, Inc. January 31, 2024 Page 2

background. Background levels for each constituent listed in Appendix IV were computed as upper tolerance limits (UTL), and a minimum 95 percent confidence coefficient and 95 percent coverage. The most recent groundwater sampling event from each compliance well was compared to the corresponding background UTL to determine if a SSL existed.

STATISTICAL EVALUATION

Either an interwell or intrawell evaluation was used to determine SSIs. Interwell evaluation compares the most recent values from downgradient compliance wells against a background dataset composed of upgradient well data, and the intrawell evaluation compares the most recent values from each compliance well against a background dataset composed of its own historical data. Because the CCR unit has transitioned into assessment monitoring, no statistical evaluations were conducted on Appendix III (detection monitoring) semi-annual assessment monitoring data.

The TL method was used to complete statistical evaluations of the referenced dataset. The TL procedure is one in which a concentration limit for each constituent is established from the distribution of the background data, with a minimum 95 percent confidence level. The upper endpoint of a tolerance interval is called the UTL. Depending on the data distribution, parametric or non-parametric TL procedures are used to evaluate groundwater monitoring data using this method. Parametric TLs utilize normally distributed data or normalized data via a transformation of the sample background data used to construct the limit. If the data are non-normal and a transformation is not indicated, non-parametric procedures (order statistics or bootstrap methods) are used to calculate the TL. If all the background data are non-detect, a maximum reporting limit may serve as an appropriate UTL.

These statistical evaluations were conducted using a background dataset for all Appendix IV constituents that were detected in the annual assessment monitoring sample event using parametric TLs. If an Appendix IV constituent concentration from the **March 2023** sampling event was above the GWPS, the lower confidence limit (LCL) for the downgradient well constituent will be used to evaluate if a SSI is present. The LCL is the lower end of the confidence interval range, which is an estimated concentration range intended to contain the true mean or median of the population from which the sample is drawn. The confidence interval range is designed to locate the true population mean or median with a high degree of statistical confidence, or conversely, with a low probability of error.

The UTLs were calculated from the background well dataset using Chemstat software after testing for outlier sample results that would warrant removal from the dataset based on likely error in sampling or measurement. Both visual and statistical outlier tests for the background data were performed using Chemstat and U.S. Environmental Protection Agency's ProUCL 5.1 software, and a visual inspection of the data was performed using box plots and distribution plots for the downgradient sample data. No sample data were identified as outliers that warranted removal from the dataset.



Evergy Kansas Central, Inc. January 31, 2024 Page 3

BACKGROUND DISTRIBUTIONS

The groundwater analytical results for each sampling event from the background sample location MW-FAA-5 (for interwell evaluation) were combined to calculate the UTL for each detected Appendix IV constituent. The variability and distribution of the pooled dataset were evaluated to determine the method for UTL calculation. Per the document, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance,* March 2009, background concentrations were updated based on statistical evaluation of analytical results collected through **September 2022** for **interwell evaluation**. Background concentrations were updated through **March 2022** for **intrawell evaluation**.

RESULTS OF APPENDIX IV DOWNGRADIENT STATISTICAL COMPARISONS

Sample concentrations from the downgradient wells for each of the detected Appendix IV constituents from the March 2023 semi-annual assessment monitoring event were compared to their respective background UTLs and GWPSs (Table I). A sample concentration greater than the background UTL is considered to represent a SSI. A sample concentration greater than the GWPS is considered to represent a SSL. Based on previous compliance sampling events, statistical evaluations, and associated alternative source demonstrations, an intrawell comparison is utilized for FAA-6 for molybdenum statistical evaluations. Interwell comparisons are being utilized for all other well and constituent evaluations. The results of the groundwater assessment monitoring statistical evaluation are provided in Table I. Based on this statistical evaluation of groundwater sampling data collected in March 2023, no SSLs above GWPS occurred at the JEC FAL.

Attachments:

Table I – Summary of Semi-Annual Assessment Groundwater Monitoring Statistical Evaluation



TABLE

TABLE I

SUMMARY OF SEMI-ANNUAL ASSESSMENT GROUNDWATER MONITORING STATISTICAL EVALUATION

MARCH 2023 SAMPLING EVENT JEFFREY ENERGY CENTER FLY ASH LANDFILL ST. MARYS, KANSAS

										MCL Co	mparison						Interwell A	Analysis	Intrawell A	Analysis	Groundwater Protectio	n Standard
Location Id	Frequency of Detection	Percent Non-Detects	Range of Non-Detect	Maximum Detect	Variance	Standard Deviation	Coefficient of Variance	CCR MCL or CFR § 257.95(h)(2)*	Report Result Unit	Number of Detection Exceedances	Number of Non-Detection Exceedances	Outlier Presence	Outlier Removed	Trend	Distribution Well	March 2023 Concentration (mg/L)	Background Limits ¹ (UTL) mg/L	SSI	Background Limits ² (UTL) mg/L	SSI	GWPS (Higher of MCL/ 40 CFR § 257.95(h)(2) or UTL)	SSL
									CCR /	Appendix-IV: Ar	senic, Total (mg/	L)										
MW-FAA-5 (upgradient)	12/23	48%	0.001-0.005	0.0054	0.000001799	0.001341	0.7988	0.01	mg/L	0	0	No	No	Stable	Non-parametric	0.0054	0.005				0.010	
MW-FAA-3	3/23	87%	0.001-0.001	0.0011	8.407E-10	0.000029	0.02901	0.01	mg/L	0	0	Yes	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-4	0/23	100%	0.0005-0.001		1.087E-08	0.0001043	0.1066	0.01	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-6	23/23	0%	-	0.01	0.00000272	0.001649	0.2779	0.01	mg/L	0	0	No	No	Stable	Non-parametric	0.0084		Yes				No
	,			-				, ,	CCR .	Appendix-IV: Ba	rium, Total (mg/l	L)		Ī	1	1						
MW-FAA-5 (upgradient)	5/23	78%	0.005-0.01	0.013	0.00000657	0.002563	0.3941	2	mg/L	0	0	No	No	NT	Non-parametric	0.011	0.013				2	
MW-FAA-3	23/23	0%	-	0.047	0.00002304	0.0048	0.1514	2	mg/L	0	0	Yes	No	Decrease	Normal	0.031		Yes				No
MW-FAA-4	23/23	0%	-	0.053	0.000007391	0.002719	0.05534	2	mg/L	0	0	No	No	Stable	Normal	0.045		Yes				No
MW-FAA-6	23/23	0%	-	0.067	0.0002741	0.01656	0.3808	2	mg/L	0	0	No	No	Decrease	Non-parametric	0.040		Yes				No
									CCR	Appendix-IV: Co	balt, Total (mg/L	.)										
MW-FAA-5 (upgradient)	18/23	22%	0.001-0.005	0.0056	0.000002184	0.001478	0.5965	0.006	mg/L	0	0	No	No	Increase	Normal	0.0036	0.005				0.006	
MW-FAA-3	2/23	91%	0.001-0.001	0.00058	1.689E-08	0.00013	0.1353	0.006	mg/L	0	0	No	No	NT	Non-parametric	< 0.0010		No				No
MW-FAA-4	10/23	57%	0.0005-0.001	0.0027	2.554E-07	0.0005053	0.3861	0.006	mg/L	0	0	No	No	Increase	NA	0.0014		No				No
MW-FAA-6	22/23	4%	0.001-0.001	0.0021	1.088E-07	0.0003298	0.2262	0.006	mg/L	0	0	No	No	Increase	Normal	0.0017		No				No
									cc	CR Appendix-IV:	Fluoride (mg/L)											
MW-FAA-5 (upgradient)	21/24	12%	0.2-0.2	1.6	0.111	0.3331	0.4606	4	mg/L	0	0	Yes	No	Stable	Normal	< 0.20	1.309				4.0	
MW-FAA-3	18/24	25%	0.2-0.2	0.44	0.005778	0.07601	0.2475	4	mg/L	0	0	No	No	Stable	Normal	< 0.20		No				No
MW-FAA-4	19/24	21%	0.2-0.2	0.5	0.007707	0.08779	0.2681	4	mg/L	0	0	Yes	No	Stable	Normal	< 0.20		No				No
MW-FAA-6	24/24	0%	-	1.2	0.04395	0.2096	0.2723	4	mg/L	0	0	No	No	Stable	Normal	0.55		No				No
									CCR /	Appendix-IV: Lit	hium, Total (mg/	L)										
MW-FAA-5 (upgradient)	23/23	0%	-	0.16	0.0007537	0.02745	0.2218	0.04	mg/L	23	0	No	No	Stable	Normal	0.15	0.171				0.171	
MW-FAA-3	19/23	17%	0.01-0.03	0.023	0.0000199	0.004461	0.2803	0.04	mg/L	0	0	Yes	No	Stable	Normal	0.014		No				No
MW-FAA-4	20/23	13%	0.01-0.03	0.024	0.00002039	0.004516	0.2527	0.04	mg/L	0	0	No	No	Increase	Normal	0.022		No				No
MW-FAA-6	16/23	30%	0.01-0.03	0.016	0.00001996	0.004468	0.3347	0.04	mg/L	0	0	Yes	No	Stable	Non-parametric	0.016		No				No
									CCR App	endix-IV: Moly	bdenum, Total (n	ng/L)										
MW-FAA-5 (upgradient)	23/23	0%	-	0.067	0.0001979	0.01407	0.4622	0.1	mg/L	0	0	No	No	Stable	Normal	0.022	0.056				0.100	
MW-FAA-3	23/23	0%	-	0.014	0.00000623	0.002496	0.27	0.1	mg/L	0	0	No	No	Decrease	Normal	0.0061		No				No
MW-FAA-4	23/23	0%	-	0.011	0.000007481	0.002735	0.4839	0.1	mg/L	0	0	No	No	Increase	Increasing	0.0093		No				No
MW-FAA-6	23/23	0%	-	0.59	0.01934	0.1391	0.3544	0.1	mg/L	23	0	No	No	Decrease	Normal	0.26		Yes	0.871	Yes	0.871	No
									CCR Ap	pendix-IV: Radi	ım-226 & 228 (po	Ci/L)										
MW-FAA-5 (upgradient)	20/23	13%	0.374-1.26	2.43	0.2873	0.536	0.4191	5	pCi/L	0	0	No	No	Stable	Normal	1.88	2.187				5	
MW-FAA-3	16/23	30%	0.246-0.857	1.792	0.1857	0.4309	0.6721	5	pCi/L	0	0	Yes	No	Stable	Normal	0.669		No				No
MW-FAA-4	15/23	35%	0.00551-0.929	1.54	0.1562	0.3953	0.5779	5	pCi/L	0	0	No	No	Stable	Normal	0.933		No				No
MW-FAA-6	14/23	39%	0.0926-0.58	1.43	0.1474	0.3839	0.713	5	pCi/L	0	0	No	No	Stable	Normal	0.000		No				No
					_				CCR A	ppendix-IV: Sel	enium, Total (mg	/L)										
MW-FAA-5 (upgradient)	7/23	70%	0.0005-0.005	0.0039	0.000001345	0.00116	0.7152	0.05	mg/L	0	0	No	No	NT	Normal	< 0.0010	0.005				0.05	
MW-FAA-3	0/23	100%	8.6E-05-0.001		4.538E-08	0.000213	0.227	0.05	mg/L	0	0	NA	NA	NA	NA	< 0.0010		No				No
MW-FAA-4	7/23	70%	0.001-0.001	0.0019	5.134E-08	0.0002266	0.2068	0.05	mg/L	0	0	Yes	No	Stable	Non-parametric	< 0.0010		No				No
MW-FAA-6	10/23	57%	0.0005-0.001	0.014	0.000007412	0.002722	1.527	0.05	mg/L	0	0	Yes	No	Increase	Non-parametric	0.0010		No				No

Notes and Abbreviations:

 $CCR = coal\ combustion\ residuals$

GWPS = Groundwater Protection Standard

MCL = maximum contaminant level mg/L = milligrams per Liter

NA = not analyzed

pCi/L = picoCuries per Liter

SSI = statistically significant increase

SSL = statistically significant level

UTL = upper tolerance limits



¹ Based on background data collected from 08/19/2016 through 09/08/2022, unless otherwise noted.

² Based on background data collected from 08/19/2016 through 03/09/2022.

^{*} Values obtained from U.S. Environmental Protection Agency Federal CCR Rule Title 40 Code of Federal Regulations (CFR) § 257.95(h)(2)

ATTACHMENT 2 Laboratory Analytical Reports

ATTACHMENT 2-1
March 2023 Semi-Annual Sampling Event
Laboratory Analytical Report





March 30, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller

alice.spiller@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy Laura Hines, Evergy, Inc. Shannon Hughes, Evergy Adam Irvin, Evergy Samantha Kaney, Haley & Aldrich Adriana Sosa, Haley & Aldrich, Inc. Andrew Watson, Haley & Aldrich



9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734 Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133 KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Montana Certification #: Cert0082 Nebraska Certification #: NE-OS-29-14 Nevada Certification #: PA014572018-1 New Hampshire/TNI Certification #: 297617 New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457 New York/TNI Certification #: 10888 North Carolina Certification #: 42706 North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249

Missouri Certification #: 235

Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification
Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3 Utah/TNI Certification #: PA014572017-9 USDA Soil Permit #: P330-17-00091 Vermont Dept. of Health: ID# VT-0282 Virgin Island/PADEP Certification Virginia/VELAP Certification #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L



SAMPLE SUMMARY

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60423974001	MW-FAA-3-031423	Water	03/14/23 14:55	03/15/23 12:40
60423974002	MW-FAA-4-031423	Water	03/14/23 16:56	03/15/23 12:40
60423974003	MW-FAA-6-031424	Water	03/14/23 15:35	03/15/23 12:40
60423974004	DUP JEC FAA-031423	Water	03/14/23 16:56	03/15/23 12:40



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60423974001	MW-FAA-3-031423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60423974002	MW-FAA-4-031423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60423974003	MW-FAA-6-031424	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60423974004	DUP JEC FAA-031423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: March 30, 2023

General Information:

4 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: March 30, 2023

General Information:

4 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: March 30, 2023

General Information:

4 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Sample: MW-FAA-3-031423 PWS:	Lab ID: 60423 Site ID:	9974001 Collected: 03/14/23 14:55 Sample Type:	Received:	03/15/23 12:40	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	Services - Greensburg				
Radium-226	EPA 903.1	-0.221 ± 0.480 (1.11) C:NA T:91%	pCi/L	03/28/23 17:12	2 13982-63-3	
	Pace Analytical S	Services - Greensburg				
Radium-228	EPA 904.0	0.669 ± 0.471 (0.917) C:73% T:81%	pCi/L	03/28/23 17:17	7 15262-20-1	
	Pace Analytical S	Services - Greensburg				
Total Radium	Total Radium Calculation	0.669 ± 0.951 (2.03)	pCi/L	03/30/23 13:39	9 7440-14-4	



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Sample: MW-FAA-4-031423 PWS:	Lab ID: 6042397 4 Site ID:	Collected: 03/14/23 16:56 Sample Type:	Received:	03/15/23 12:40	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Serv	vices - Greensburg				
Radium-226	EPA 903.1	0.421 ± 0.438 (0.652) C:NA T:92%	pCi/L	03/28/23 17:12	2 13982-63-3	
	Pace Analytical Serv	rices - Greensburg				
Radium-228	EPA 904.0	0.512 ± 0.405 (0.811) C:87% T:85%	pCi/L	03/28/23 17:17	7 15262-20-1	
	Pace Analytical Serv	rices - Greensburg				
Total Radium	Total Radium Calculation	0.933 ± 0.843 (1.46)	pCi/L	03/30/23 13:39	7440-14-4	



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Sample: MW-FAA-6-031424 PWS:	Lab ID: 60423 Site ID:	3974003 Collected: 03/14/23 15:35 Sample Type:	Received:	03/15/23 12:40	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.406 ± 0.422 (0.628) C:NA T:93%	pCi/L	03/28/23 17:12	2 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.563 ± 0.428 (0.853) C:86% T:87%	pCi/L	03/28/23 17:17	7 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	$0.969 \pm 0.850 (1.48)$	pCi/L	03/30/23 13:39	9 7440-14-4	



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Sample: DUP JEC FAA-031423 PWS:	Lab ID: 6042397 Site ID:	'4004 Collected: 03/14/23 16:56 Sample Type:	Received:	03/15/23 12:40	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	rvices - Greensburg				
Radium-226	EPA 903.1	0.226 ± 0.533 (0.987) C:NA T:96%	pCi/L	03/28/23 17:12	2 13982-63-3	
	Pace Analytical Ser	rvices - Greensburg				
Radium-228	EPA 904.0	0.270 ± 0.295 (0.612) C:84% T:94%	pCi/L	03/28/23 17:17	7 15262-20-1	
	Pace Analytical Ser	rvices - Greensburg				
Total Radium	Total Radium Calculation	0.496 ± 0.828 (1.60)	pCi/L	03/30/23 13:39	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

QC Batch: 575092 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60423974001, 60423974002, 60423974003, 60423974004

METHOD BLANK: 2792344 Matrix: Water
Associated Lab Samples: 60423974001, 60423974002, 60423974003, 60423974004

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-226 -0.0560 ± 0.256 (0.520) C:NA T:92% pCi/L 03/28/23 16:17

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

QC Batch: 575093 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60423974001, 60423974002, 60423974003, 60423974004

METHOD BLANK: 2792345 Matrix: Water
Associated Lab Samples: 60423974001, 60423974002, 60423974003, 60423974004

Parameter Act ± Unc (MDC) Carr Trac Units Analyzed Qualifiers

Radium-228 0.327 ± 0.270 (0.533) C:89% T:92% pCi/L 03/28/23 17:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Date: 03/30/2023 02:11 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60423974

Date: 03/30/2023 02:11 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60423974001	MW-FAA-3-031423	EPA 903.1	575092		
60423974002	MW-FAA-4-031423	EPA 903.1	575092		
60423974003	MW-FAA-6-031424	EPA 903.1	575092		
60423974004	DUP JEC FAA-031423	EPA 903.1	575092		
60423974001	MW-FAA-3-031423	EPA 904.0	575093		
60423974002	MW-FAA-4-031423	EPA 904.0	575093		
60423974003	MW-FAA-6-031424	EPA 904.0	575093		
60423974004	DUP JEC FAA-031423	EPA 904.0	575093		
60423974001	MW-FAA-3-031423	Total Radium Calculation	577471		
60423974002	MW-FAA-4-031423	Total Radium Calculation	577471		
60423974003	MW-FAA-6-031424	Total Radium Calculation	577471		
60423974004	DUP JEC FAA-031423	Total Radium Calculation	577471		



DC#_Title: ENV-FRM-LENE-0009_

WO#: 60423974

Revision: 2 Effective Date: 01

Client Name: EVEFGY		
Courier: FedEx □ UPS □ VIA □ Clay □ F	PEX 🗆 ECI 🗆	Pace □ Xroads □ Client 🎾 Other □
Tracking #: Pac	e Shipping Label Use	d? Yes ⊠ ′ No □
Custody Seal on Cooler/Box Present: Yes □ No 🌠	Seals intact: Yes	□ No □
Packing Material: Bubble Wrap 1 Bubble Bags D	☐ Foam ☐	None ☐ Other ☐
Thermometer Used: T-agu Type of	lce: ∰es Blue No	
Cooler Temperature (°C): As-read 15-7 Corr. Factor	or O·) Correc	ted 15 - 6 Date and initials of person examining contents:
Temperature should be above freezing to 6°C		VF 3/15
Chain of Custody present:	Maryes □No □N/A	
Chain of Custody relinquished:	Maryes □No □N/A	
Samples arrived within holding time:	Yes □No □N/A	
Short Hold Time analyses (<72hr):	□Yes No □N/A	TIMES ON CONTAINERS
Rush Turn Around Time requested:	☐Yes ☐N/A	A FEW MINUTES OFF
Sufficient volume:	Yes □No □N/A	
Correct containers used:	Dores □No □N/A	
Pace containers used:	Yes □No □N/A	
Containers intact:	Yes No N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No □N/A	
Filtered volume received for dissolved tests?	☐Yes ☐No ☐N/A	
Sample labels match COC: Date / time / ID / analyses	□Yes ™ No □N/A	
Samples contain multiple phases? Matrix: WT	□Yes ™ No □N/A	
Containers requiring pH preservation in compliance?	ØtYes □No □N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT# :	67187	uate/time added.
Cyanide water sample checks:	5 7-10 1	
Lead acetate strip turns dark? (Record only)	□Yes □No	
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No	
Trip Blank present:	□Yes □No Sol/A	
Headspace in VOA vials (>6mm):	□Yes □No □N/A	
Samples from USDA Regulated Area: State:	□Yes □No DSAN/A	
Additional labels attached to 5035A / TX1005 vials in the field?		
Client Notification/ Resolution: Copy COC to	Client? Y / N	Field Data Required? Y / N
Person Contacted: Date/T	ime:	2
Comments/ Resolution:		
Project Manager Review:	Ď-4-	
Toject Manager Neview.	₋ Date	.



CHAIN-OF-CUSTODY / Analytical Request Document

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

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf Section A Section B Section C Required Client Information: Required Project Information: Invoice Information: Of Company: Evergy Kansas Central, Inc. Report To: Attention: Jake Humphrey ACCOUNTS PAYABLE Address: 400 E Van Buren St Laura Hines, Samantha Kaney, Melissa Michels Company Name: EVERGY KANSAS CENTRAL Suite 545, Phoenix, AZ 85004 Address: SAME AS A Regulatory Agency skaney@haleyaldrich.com Purchase Order #: Pace Quote: Phone: 507-251-2232 Fax: Project Name: JEC FAL CCR RADCHEM Pace Project Manager: alice.spiller@pacelabs.com, State / Location Requested Due Date: Project #: Pace Profile #: 9657, line 7 Requested Analysis Filtered (Y/N) C=COMP) COLLECTED Preservatives MATRIX Drinking Water DW Radium 226/228 combined Water (G=GRAB Waste Water WW Product SAMPLE ID Soil/Solid SL ees) START END # OF CONTAINERS Oil OL One Character per box. Wipe WP MATRIX CODE SAMPLE TYPE AR (A-Z, 0-9 / , -) Other ОТ Sheets Methanol Sample Ids must be unique Ξ NaOH HN03 Olher DATE TIME DATE TIME NA 1 MW FAA-3-031423 WTIG 2 MW FAA-4-031423 WTIG NA 1656 3 MW FAA-6-031423 NA 1535 1/14/23 Dup JEC FAA-031423 WT G NA NA 5 7 8 9 10 11 12 ADDITIONAL COMMENTS **RELINQUISHED BY / AFFILIATION** DATE SAMPLE CONDITIONS 3/15/2023 Matt VanderPutten / SCS SAMPLER NAME AND SIGNATURE Received on PRINT Name of SAMPLER: Matt VanderPutten SIGNATURE of SAMPLER: DATE Signed: 3/15/2023

Revision: 3	Effective Date:	Issued by: Lenexa	

Client:	EVERGY

9657-7

Site: JEC FAL CCR RADCHEM

Notes

125mL H2SO4 plastic

16oz unpresserved plstic

COC	Matrix	VG9H	DG9H	DG9G	VG9U	Deso	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	вРзи	DBP1N	BP3N	ВРЗЕ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
ine item		>			_>_	0				⋖	< _	<	<	<_<	< _	_ Š	_ <	5	-	8	8	<u> </u>	面	8	8	8	B	3	Ž	ō	
1	_																					0									
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11																						-									
12																															1

Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	T	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	c	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	ĺυ	Summa Can
√G9H	40mL HCI clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio, clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		Matrix
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
3G3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
3G3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
				BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		

BP4S WPDU

Work Order Number:

60423974

Int	erna	il Transfer Cl	hain c)t C	ustod	у —															Par	ο Δη	alytica
					Samples	Pre-Logged i	into eCO	C.			e Of C	-			'es		No				Λ ac	www.	pacelabs.con
			korder N	ame:	JEC FAI	L CCR RADC	HEM			Owr	er Re	ceiv	/ed	Date):	3/15/				eque	sted E	3y: 4	/12/2023
Repo	rt To				Subcontract	t To	100 May 1887									Red	queste	Analy	sis .				
Pace 9608 Lene	Loiret E xa, KS				1638 R Suites : Greens	analytical Pittsbi Roseytown Road 2,3, & 4 sburg, PA 1560 (724)850-5600	d	P	reserv	ed Co	ntaine	rs	Combined radium	Radium 226	Radium 228)# : ₇₁₀₅₁)51 	
Item	Sample	: ID	Sample Type	Collect Date/	0.0043936285030038341086111133333	Lab ID	Matrix	HINO3														LAE	B USE ONLY
1	MW-FAA-	3-031423	PS	3/14/2	2023 14:55	60423974001	Water	2					Х	X								ico	
2	MW-FAA-	4-031423	PS	3/14/2	2023 16:56	60423974002	Water	2					Х	Х			_					00r	
3	MW-FAA-	6-031424	PS	3/14/2	2023 15:35	60423974003	Water	2					X	Х	Х							වර)	
4	DUP JEC	FAA-031423	PS	3/14/2	2023 16:56	60423974004	Water	2					Х	Х	Х							00Y	
5																							
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3						Jy Thom								┵	or	\sqrt{N}	7		Sami	nles	Intact	(Y)	N
		mperature on Recei		_°C		tody Seal			—		ceive						. ,	. ,	1				
7	Page 19 of	to maintain client con	idered co	y, loca mplete	tion/name	of the sampli	ng site, s	amp vailai	iers I	the o	ana (labo	orato	ory.				erev.00			Jungi		Page 1 of
Thu	bošďay, M	arch 16, 2023 3:56:51 PM														141 ("/"\L							

	DC#_Title: ENV-FRM-G Pittsburgh						Due Date: O	4/07/23
\sim	Pittsburgii				PM: MAR			4/01/23
/Pace	Effective Date: 02/03/2023				CLIENT: P	ACE_!	5U_LEKS	
AKALYTICAL SERVICES					-			
lient Name:	Pace Kansas							
Courier: Weed	Ex 🗌 UPS 🗎 USPS 🖟 Client 🖺	Comm	nercia!	∏ Pa	ce 🗌 Other 🔃			7) (S
	1 001 0401	109	6				Examined By	<u> </u>
racking Numb			<i></i>	ioals In	tact: Yes	s 🗆 No	Labeled By	2ª
Eustody Seal or	Cooler/Box Present: Yes	SENO			- Commence		Temped By	-A/4_
Thermometer l				et blu	Tone		•C Final Temp	
Cooler Temper	ature: Observed Temp		С	Correc	tion Factor:	·····		
Temp should be ab	ove freezing to 6°C			ľ	pH paper Lot#		D.P.D. Residual	Chlorine Lot
		Г и . Т	NI.	NA	100313	ı.i		
Comments:		Yes	No	IVA				
Chain of Custoc		V/			<u>1.</u>			
Chain of Custoo	ly Filled Out:	-			<u> </u>			
	nt corrections present on COC	 	_\/_		3.			
Chain of Custo	dy Relinquished	-		 	<u> </u>			
Sampler Name	& Signature on COC:				5.			
Sample Labels	match COC:	<u></u>	<u> </u>	<u> </u>	э			
	ate/time/ID							
Matrix:		1	\mathcal{V}	Т				
Samples Arrive	d within Hold Time:	$\perp \checkmark$	<u> </u>	├ ─	6. 7.			
Short Hold Tin	ne Analysis (<72hr			1	7.		·	
remaining):			 	-	8.			
Rush Turn Aro	und Time Requested:	ļ.,			9.			
Sufficient Volu		12/	╁	-	10.			
Correct Contai		V	├ ──	┽─┈	10.			
	tainers Used	14	 	_	11.			
Containers Int		$+$ \checkmark	 	+	12.			
Orthophospha	te field filtered:			+ 4	13.			
Hex Cr Aqueo	us samples field filtered:	+	+-	1	14:			
Organic Samp	es checked for dechlorination			+~	15:			
Filtered volum	e received for dissolved tests:	+	/	+	16.			
All containers	checked for preservation:				. 1			
exception	s: VOA, coliform, TOC, O&G,				pHe	ع:		
	, Radon, non-aqueous matrix				Initial when		Date/Time of	
	meet method preservation	1	1		completed	<u> </u>	Preservation	
requirem	ents:				Lot# of added Preservative			
		1	Τ	Т	17.	-118		
	dspace in VOA Vials (> 6mm)		-	+~				-
624.1 : Heads	pace in VOA Vials (0mm)			✓	1	1, 5,15+	ody seal present?	YES or NO
Trip Blank Pre	esent:				I rip bian	K CUST		
	Screened <0.5 mrem/hr.				Initial when completed	20(Date: 3-18.23	Survey Meter SN: 1503

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.

PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	CLM
Date:	3/22/2023
Batch ID:	72092
Matrix:	DW

Method Blank Assessment		
1	MB Sample ID	2792344
l	MB concentration:	-0.056
	M/B Counting Uncertainty:	0.190
į	MB MDC:	0.520
1	MB Numerical Performance Indicator:	-0.58
1	MB Status vs Numerical Indicator:	N/A
1	MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
·	LCS72092	LCSD72092
Count Date:	3/28/2023	3/28/2023
Spike I.D.:	21-040	21-040
Spike Concentration (pCi/mL):	32.419	32.419
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.655	0.658
Target Conc. (pCi/L, g, F):	4.947	4.930
Uncertainty (Calculated):	0.233	0.232
Result (pCi/L, g, F):	3.730	4.302
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.919	0.952
Numerical Performance Indicator:	-2.52	-1.26
Percent Recovery:	75.39%	87.25%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	133%	133%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: WRPD Limit:	0.919 4.302 0.952 NO -0.847 14.58% N/A Pass	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		1
MS Numerical Performance Indicator:		i
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		1
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:	L	

Matrix Spike/Matri	ix Spike Duplicate Sample Assessment	
Matrix Spike Dur	Sample I.D. Sample MS I.D. Sample MSD I.D. Sample MSD I.D. Sample MSD I.D. Sample Matrix Spike Result: Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: plicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: e Percent Recoveries) MS/ MSD Duplicate RPD: S/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD: % RPD Limit:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

> Ra-226 NELAC QC Printed: 3/28/2023 17:48

Pace Analytical* www.pacelabs.com

Quality Control Sample Performance Assessment

Test: Ra-228 Analyst: JJS1 Date: 3/23/2023

Worklist: 72093 Matrix: WT

Method Blank Assessment	
MB Sample ID	2792345
MB concentration:	0.327
M/B 2 Sigma CSU:	0.270
MB MDC:	0.533
MB Numerical Performance Indicator:	2.37
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS72093	LCSD72093
Count Date:	3/28/2023	3/28/2023
Spike I.D.:	22-040	22-040
Decay Corrected Spike Concentration (pCi/mL):	33.091	33.091
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):		0.804
Target Conc. (pCi/L, g, F):	4.126	4.115
Uncertainty (Calculated):	0.202	0.202
Result (pCi/L, g, F):	3.701	3.147
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.879	0.782
Numerical Performance Indicator:	-0.92	-2.35
Percent Recovery:	89.72%	76.49%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL?	0.879 3.147	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.924 15.92%	
Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:	Pass Pass 36%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sa	ample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
1	Sample Collection Date:		
	Sample I.D.		
	Sample MS I.D.		
	Sample MSD I.D.		
1	Spike I.D.:		
1	MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
1	Spike Volume Used in MS (mL):		
1	Spike Volume Used in MSD (mL):		
1	MS Aliquot (L, g, F):		
1	MS Target Conc.(pCi/L, g, F):		
	MSD Aliquot (L, g, F):		
	MSD Target Conc. (pCi/L, g, F):		
	MS Spike Uncertainty (calculated):		
1	MSD Spike Uncertainty (calculated):		
1	Sample Result:		
1	Sample Result 2 Sigma CSU (pCi/L, g, F):		
1	Sample Matrix Spike Result:		
1	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
1	Sample Matrix Spike Duplicate Result:		
	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator:		
1	MSD Numerical Performance Indicator:		
	MSD Numerical Performance Indicator: MS Percent Recovery:		
1	MSD Percent Recovery:		
1	MS Status vs Numerical Indicator:		
	MSD Status vs Numerical Indicator:		
1	MS Status vs Recovery:		
1	MSD Status vs Recovery:		
	MS/MSD Upper % Recovery Limits:		
L	MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

3/30/2





March 30, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: MW-FAA-5 Radchem Pace Project No.: 60423978

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller alice.spiller@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich







CERTIFICATIONS

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590 Arizona Certification #: AZ0734 Arkansas Certification

California Certification #: 04222CA Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

Delaware Certification EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040 Florida: Cert E871149 SEKS WET

Guam Certification Hawaii Certification Idaho Certification Illinois Certification Indiana Certification Iowa Certification #: 391

Kansas/TNI Certification #: E-10358 Kentucky Certification #: KY90133 KY WW Permit #: KY0098221 KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012 Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Montana Certification #: Cert0082 Nebraska Certification #: NE-OS-29-14 Nevada Certification #: PA014572018-1 New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051 New Mexico Certification #: PA01457 New York/TNI Certification #: 10888 North Carolina Certification #: 42706 North Dakota Certification #: R-190 Ohio EPA Rad Approval: #41249

Missouri Certification #: 235

Oregon/TNI Certification #: PA200002-010 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

Texas/TNI Certification #: T104704188-17-3

South Dakota Certification
Tennessee Certification #: 02867

Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L



SAMPLE SUMMARY

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60423978001	MW FAA-5-031423	Water	03/14/23 09:55	03/15/23 12:40



SAMPLE ANALYTE COUNT

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60423978001	MW FAA-5-031423	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: March 30, 2023

General Information:

1 sample was analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: March 30, 2023

General Information:

1 sample was analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: March 30, 2023

General Information:

1 sample was analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Sample: MW FAA-5-031423 PWS:	Lab ID: 6042397 Site ID:	8001 Collected: 03/14/23 09:55 Sample Type:	Received:	03/15/23 12:40	Matrix: Water	
Parameters	arameters Method Act ± Unc (MDC) Carr		Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	vices - Greensburg				
Radium-226	EPA 903.1	0.785 ± 0.489 (0.482) C:NA T:97%	pCi/L	03/28/23 17:12	2 13982-63-3	
	Pace Analytical Ser	vices - Greensburg				
Radium-228	EPA 904.0	1.09 ± 0.481 (0.818) C:84% T:89%	pCi/L	03/28/23 17:17	7 15262-20-1	
	Pace Analytical Ser	vices - Greensburg				
Total Radium	Total Radium Calculation	1.88 ± 0.970 (1.30)	pCi/L	03/30/23 13:39	9 7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

QC Batch: 575092 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60423978001

METHOD BLANK: 2792344 Matrix: Water

Associated Lab Samples: 60423978001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 -0.0560 ± 0.256 (0.520) C:NA T:92%
 pCi/L
 03/28/23 16:17

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL - RADIOCHEMISTRY

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

QC Batch: 575093 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60423978001

METHOD BLANK: 2792345 Matrix: Water

Associated Lab Samples: 60423978001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.327 ± 0.270 (0.533) C:89% T:92%
 pCi/L
 03/28/23 17:14

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Date: 03/30/2023 02:11 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5 Radchem

Pace Project No.: 60423978

Date: 03/30/2023 02:11 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60423978001	MW FAA-5-031423	EPA 903.1	575092		
60423978001	MW FAA-5-031423	EPA 904.0	575093		
60423978001	MW FAA-5-031423	Total Radium Calculation	577471		

Pace ANALYTICAL SERVICES

Revision: 2

DC#_Title: ENV-FRM-LENE-0009_Sample

WO#:60423978 60423978 Effective Date: 01/12/202

Client Name: Everav Kansas Can	mil			
	EX 🗆	EC	: 🗆	Pace ☐ Xroads ☐ Client ☐ Other ☐
			bel Use	
Custody Seal on Cooler/Box Present: Yes No		-	: Yes [
Packing Material: Bubble Wrap □ Bubble Bags □ Thermometer Used: Type of		Fo	am □ lue (No	None Other □
Cooler Temperature (°C): As-read 11.6 Corr. Factor	r_~0	, /	Correc	ted 115 Date and initials of person examining contents:
Chain of Custody present:	D yes	□No	□n/a	7
Chain of Custody relinquished:	(V es	□No	□n/a	
Samples arrived within holding time:	t Yes	□No	□n/a	
Short Hold Time analyses (<72hr):	□Yes	II)No	□n/a	
Rush Turn Around Time requested:	□Yes	₫N ₀	□n/a	
Sufficient volume:	₫ Yes	□No	□n/a	
Correct containers used:	I Yes	□No	□n/a	
Pace containers used:	D ₩es	□No	□n/a	
Containers intact:	Yes	□No	□N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes	□No	M/A	
Filtered volume received for dissolved tests?	□Yes	□No	DINIA	
Sample labels match COC: Date / time / ID / analyses	Tives	□No	□n/a	
Samples contain multiple phases? Matrix: W	□Yes	Mo	□n/a	
Containers requiring pH preservation in compliance? (HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#:	□Yes	□No	□M/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	□Yes			
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes			
Trip Blank present:	□Yes	□No		
Headspace in VOA vials (>6mm):	□Yes	□No	DN/A	
Samples from USDA Regulated Area: State:	□Yes	□No	ŮN/A	
Additional labels attached to 5035A / TX1005 vials in the field?	□Yes	□No	ĎN/A	
Client Notification/ Resolution: Copy COC to		Y	N	Field Data Required? Y / N
Person Contacted: Date/Tir	ne:			
Comments/ Resolution:				
				41
Project Manager Review:			Date	2:



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section	Submitting a sample via this ch	ain of custod	y cons	stitutes acl	knowledgr	nent and	acceptar	nce o	of the	Pace	Term	s an	d Co	nditio	ons fo	und a	t htt	ps://	info.	pace	labs.c	om/hu	bfs/pa	ıs-star	ndard-	terms.r	odf.			
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	IS, Phoenix, AZ 85004	Сору 10.	Laura	a Hines, Sai	nantha Kar	ney, Meliss	a Michels	_	Company Name: EVERGY KANSAS CENTRAL Address: SAME AS A																					
Email:	skaney@haleyaldrich.com	Purchase Or	der#					_	Address: SAME AS A Pace Quote:													Regulatory Agency								
Phone:	507-251-2232 Fax	Project Name		MW-FAA-5			_					aner	-	alles		0		21121												
Request	ted Due Date;	Project #:							Pace Project Manager: alice.spiller@pacelabs.com, Pace Profile #: 9657, 10											State / Location										
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Client:	Evergy	Kansas
	/	325

Site: MW-FAH-S

Notes

COC Line Item	Matrix	VG9H	ревн	DG9G	VG9U	DGBO	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	S BP1N	BP3N	ВРЗГ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
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Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	TI	Wipe/Swab
OG9H	40mL HCl amber voa vial	WGFU	4oz ciear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
OG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
OG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
OG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
OG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
√G9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		10
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	7	
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		B# a fair-
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic	7	Matrix
3G1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
3G3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
			11 × × × × × × × × × × × × × × × × × ×	BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		

BP4N BP4S

WPDU

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

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Pace	Effective Date: 02/03/2023				CLIENT: PACE	_60_LEKS	·/ U / / Z3
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ampler Name	& Signature on COC:	ļ,	V		4.		
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emaining):		 	 	,	8.		
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Sufficient Volu		1./	+-	+	10.		
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All containers	checked for preservation:	V	<u> </u>		16.		
	s: VOA, coliform, TOC, O&G,				pHca	~	
Phenolics	, Radon, non-aqueous matrix						
	meet method preservation		7		Initial when completed	Date/Time of Preservation	
requirem					Lot# of added	1 + TOSOTYGUOIT	
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8260C/D: Hea	adspace in VOA Vials (> 6mm)				17.		
	pace in VOA Vials (0mm)	\top		V	18.		
Trip Blank Pre				1		stody seal present?	YES or NO Survey Meter
•	Screened <0.5 mrem/hr.	\	1		Initial when completed	Date: 3-18-23	SN: 1503
Comments:							
e eminantillo.							

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Qualtrax ID: 55680

Quality Control Sample Performance Assessment

Ra-226 Test: Analyst: CLM

Date: 3/22/2023 Batch ID: Matrix: 72092 DW

Method Blank Assessment MB Sample ID 2792344 -0.056 MB concentration: 0.190 M/B Counting Uncertainty: MB MDC: 0.520 MB Numerical Performance Indicator: -0.58 N/A MB Status vs Numerical Indicator: MB Status vs. MDC: Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
·	LC\$72092	LCSD72092
Count Date:	3/28/2023	3/28/2023
Spike I.D.:	21-040	21-040
Spike Concentration (pCi/mL):	32.419	32.419
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.655	0.658
Target Conc. (pCi/L, g, F):	4.947	4.930
Uncertainty (Calculated):	0.233	0.232
Result (pCi/L, g, F):	3.730	4.302
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.919	0.952
Numerical Performance Indicator:	-2.52	-1.26
Percent Recovery:	75.39%	87.25%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	133%	133%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL?	LCSD72092 3.730 0.919 4.302 0.952	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator:		
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	14.58%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD: % RPD Limit:		

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		1
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:	1	
MSD Percent Recovery	1	1
MS Status vs Numerical Indicator:	ì	
MSD Status vs Numerical Indicator:	I .	
MS Status vs Recovery	I .	
MSD Status vs Recovery		
MS/MSD Upper % Recovery Limits		
MS/MSD Lower % Recovery Limits	1	i

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D. Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs Numerican Indicator. MS/ MSD Duplicate Status vs RPD: % RPD Limit:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

ENTRE CH

Ra-226 NELAC QC Printed: 3/28/2023 17:48

Pace Analytical* www.pacelabs.com

Quality Control Sample Performance Assessment

Test: Ra-228 Analyst: JJS1 Date: 3/23/2023

Worklist: 72093 Matrix: WT

Method Blank Assessment	
MB Sample ID	2792345
MB concentration:	0.327
M/B 2 Sigma CSU:	0.270
MB MDC:	0.533
MB Numerical Performance Indicator:	2.37
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS72093	LCSD72093
Count Date:	3/28/2023	3/28/2023
Spike I.D.:	22-040	22-040
Decay Corrected Spike Concentration (pCi/mL):	33.091	33.091
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):		0.804
Target Conc. (pCi/L, g, F):	4.126	4.115
Uncertainty (Calculated):	0.202	0.202
Result (pCi/L, g, F):	3.701	3.147
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.879	0.782
Numerical Performance Indicator:	-0.92	-2.35
Percent Recovery:	89.72%	76.49%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL?	0.879 3.147	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.924 15.92%	
Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:	Pass Pass 36%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sa	ample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
1	Sample Collection Date:		
	Sample I.D.		
	Sample MS I.D.		
	Sample MSD I.D.		
1	Spike I.D.:		
1	MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
1	Spike Volume Used in MS (mL):		
1	Spike Volume Used in MSD (mL):		
1	MS Aliquot (L, g, F):		
1	MS Target Conc.(pCi/L, g, F):		
	MSD Aliquot (L, g, F):		
	MSD Target Conc. (pCi/L, g, F):		
	MS Spike Uncertainty (calculated):		
1	MSD Spike Uncertainty (calculated):		
1	Sample Result:		
1	Sample Result 2 Sigma CSU (pCi/L, g, F):		
1	Sample Matrix Spike Result:		
1	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
1	Sample Matrix Spike Duplicate Result:		
	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator:		
1	MSD Numerical Performance Indicator:		
	MSD Numerical Performance Indicator: MS Percent Recovery:		
1	MSD Percent Recovery:		
1	MS Status vs Numerical Indicator:		
	MSD Status vs Numerical Indicator:		
1	MS Status vs Recovery:		
1	MSD Status vs Recovery:		
	MS/MSD Upper % Recovery Limits:		
L	MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

3/30/2





May 09, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Kansas City

Revised report_rev1

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angie Brown angie.brown@pacelabs.com 1(913)563-1402 Project Manager

auger Pm

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich



9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 88-00679 Illinois Certification #: 2000302023-5

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212023-1 Oklahoma Certification #: 2022-057 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-22-16 Utah Certification #: KS000212022-12

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60423980001	MW FAA-3-031423	Water	03/14/23 14:55	03/15/23 12:40
60423980002	MW FAA-4-031423	Water	03/14/23 16:56	03/15/23 12:40
60423980003	MW FAA-6-031423	Water	03/14/23 15:35	03/15/23 12:40
60423980004	DUP JEC FAA-031423	Water	03/14/23 16:56	03/15/23 12:40



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60423980001	MW FAA-3-031423	EPA 200.7	MRV	3	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	MA1	4	PASI-K
		SM 2540C	MLD	1	PASI-K
		SM 4500-H+B	CRN2	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K
0423980002	MW FAA-4-031423	EPA 200.7	MA1, MRV	3	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP, MA1	4	PASI-K
		SM 2540C	MLD	1	PASI-K
		SM 4500-H+B	RB	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K
60423980003	MW FAA-6-031423	EPA 200.7	MA1, MRV	3	PASI-K
		EPA 6010	MA1, MRV	1	PASI-K
		EPA 200.8	JGP, MA1	4	PASI-K
		SM 2540C	MLD	1	PASI-K
		SM 4500-H+B	BLA, CRN2	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K
0423980004	DUP JEC FAA-031423	EPA 200.7	MRV	3	PASI-K
		EPA 6010	MRV	1	PASI-K
		EPA 200.8	MA1	4	PASI-K
		SM 2540C	MLD	1	PASI-K
		SM 4500-H+B	RB	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City





PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: May 09, 2023

Amended report revised for the following to include a secondary analysis per client request:

MW-6 all requested analyses

MW-4 Total Dissolved Solids, Calcium, Arsenic and Molydenum



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: May 09, 2023

General Information:

4 samples were analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 836895

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60423980001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3319071)
 - Calcium
- MSD (Lab ID: 3319072)
 - Calcium

QC Batch: 844499

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60423980002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3347005)
 - Calcium
- MSD (Lab ID: 3347006)
 - Calcium

Additional Comments:



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: May 09, 2023

General Information:

4 samples were analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: May 09, 2023

General Information:

4 samples were analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Method: SM 2540C

Description: 2540C Total Dissolved Solids **Client:** Evergy Kansas Central, Inc.

Date: May 09, 2023

General Information:

4 samples were analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the EPA method holding time.

- MW FAA-4-031423 (Lab ID: 60423980002)
- MW FAA-6-031423 (Lab ID: 60423980003)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Method: SM 4500-H+B

Description: 4500H+ pH, Electrometric **Client:** Evergy Kansas Central, Inc.

Date: May 09, 2023

General Information:

4 samples were analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA required holding time.

- DUP JEC FAA-031423 (Lab ID: 60423980004)
- MW FAA-3-031423 (Lab ID: 60423980001)
- MW FAA-4-031423 (Lab ID: 60423980002)
- MW FAA-6-031423 (Lab ID: 60423980003)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 843535

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.

DUP (Lab ID: 3343256)pH at 25 Degrees C



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: May 09, 2023

General Information:

4 samples were analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the EPA method holding time.

• MW FAA-6-031423 (Lab ID: 60423980003)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 836993

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60424061001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3319521)
 - Fluoride
- MSD (Lab ID: 3319522)
 - Fluoride

QC Batch: 843527

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60427090003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3343252)
 - Chloride
 - Fluoride
 - Sulfate
- MSD (Lab ID: 3343251)
 - Chloride
 - Fluoride
 - Sulfate

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: May 09, 2023

Analyte Comments: QC Batch: 843527

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

• MS (Lab ID: 3343252)

• Chloride

• MSD (Lab ID: 3343251)

• Chloride

This data package has been reviewed for quality and completeness and is approved for release.



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

Sample: MW FAA-3-031423	Lab ID: 604	23980001	Collected: 03/14/2	23 14:55	Received: 03	3/15/23 12:40 N	fatrix: Water					
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua				
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7											
	Pace Analytical Services - Kansas City											
Barium, Total Recoverable	0.031	mg/L	0.0050	1	03/16/23 09:10	03/22/23 10:41	7440-39-3					
Boron, Total Recoverable	0.46	mg/L	0.10	1	03/16/23 09:10	03/22/23 10:41	7440-42-8					
Calcium, Total Recoverable	205	mg/L	0.20	1	03/16/23 09:10	03/22/23 10:41	7440-70-2	M1				
6010 MET ICP	Analytical Met	Analytical Method: EPA 6010 Preparation Method: EPA 3010										
	Pace Analytical Services - Kansas City											
Lithium, Total Recoverable	0.014	mg/L	0.010	1	03/16/23 09:10	03/22/23 11:04	7439-93-2					
200.8 MET ICPMS	Analytical Met	hod: EPA 20	00.8 Preparation Met	hod: EF	PA 200.8							
	Pace Analytica	al Services -	Kansas City									
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:36	7440-38-2					
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:36	7440-48-4					
Molybdenum, Total Recoverable	0.0061	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:36	7439-98-7					
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:36	7782-49-2					
2540C Total Dissolved Solids	Analytical Met	hod: SM 25	40C									
	Pace Analytica	al Services -	Kansas City									
Total Dissolved Solids	1210	mg/L	13.3	1		03/16/23 09:39						
4500H+ pH, Electrometric	Analytical Met	hod: SM 45	00-H+B									
•	Pace Analytica	al Services -	Kansas City									
pH at 25 Degrees C	7.0	Std. Units	0.10	1		03/16/23 10:38		H6				
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00									
·	Pace Analytica	al Services -	Kansas City									
Chloride	119	mg/L	10.0	10		03/17/23 18:24	16887-00-6					
Fluoride	<0.20	mg/L	0.20	1		03/17/23 18:10	16984-48-8					
Sulfate	478	mg/L	100	100		03/21/23 19:52	14808-79-8					



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

Sample: MW FAA-4-031423	Lab ID: 604	23980002	Collected: 03/14/2	23 16:56	Received: 03	/15/23 12:40 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Met	hod: EPA 20	00.7 Preparation Me	thod: EF	PA 200.7			
	Pace Analytic	al Services -	Kansas City					
Barium, Total Recoverable	0.045	mg/L	0.0050	1	05/01/23 14:17	05/02/23 09:15	7440-39-3	
Boron, Total Recoverable	0.71	mg/L	0.10	1	05/01/23 14:17	05/02/23 09:15	7440-42-8	
Calcium, Total Recoverable	240	mg/L	0.20	1	03/16/23 09:10	03/22/23 10:47	7440-70-2	
Calcium, Total Recoverable	178	mg/L	0.20	1	05/01/23 14:17	05/02/23 09:15	7440-70-2	M1
010 MET ICP	Analytical Met	hod: EPA 60	010 Preparation Met	hod: EP	A 3010			
	Pace Analytic	al Services -	Kansas City					
ithium, Total Recoverable	0.022	mg/L	0.010	1	05/01/23 14:17	05/02/23 09:35	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	00.8 Preparation Me	thod: EF	PA 200.8			
	Pace Analytic	al Services -	Kansas City					
Arsenic, Total Recoverable	0.0011	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:39	7440-38-2	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:18	7440-38-2	
Cobalt, Total Recoverable	0.0014	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:18	7440-48-4	
Molybdenum, Total Recoverable	0.0018	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:39	7439-98-7	
Molybdenum, Total Recoverable	0.0093	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:18	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:18	7782-49-2	
540C Total Dissolved Solids	Analytical Met	hod: SM 25	40C					
	Pace Analytic	al Services -	Kansas City					
Total Dissolved Solids	1310	mg/L	13.3	1		03/16/23 09:39		
Total Dissolved Solids	1610	mg/L	20.0	1		04/26/23 08:52		H1
1500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
	Pace Analytic	al Services -	Kansas City					
H at 25 Degrees C	7.1	Std. Units	0.10	1		03/20/23 15:23		H6
800.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00					
·	Pace Analytic							
Chloride	92.9	mg/L	10.0	10		03/17/23 18:50	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		03/17/23 18:37		
Sulfate	473	mg/L	100	100		03/21/23 20:05		



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

Sample: MW FAA-6-031423	Lab ID: 604	23980003	Collected: 03/14/2	23 15:35	Received: 03	/15/23 12:40	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Met	hod: EPA 20	00.7 Preparation Met	hod: EP	A 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	0.048	mg/L	0.0050	1	03/16/23 09:10	03/22/23 10:50	7440-39-3	
Barium, Total Recoverable	0.028	mg/L	0.0050	1	05/01/23 14:17			
Boron, Total Recoverable	0.37	mg/L	0.10	1	03/16/23 09:10			
Boron, Total Recoverable	2.8	mg/L	0.10	1	05/01/23 14:17			
Calcium, Total Recoverable	229	mg/L	0.20	1	03/16/23 09:10			
Calcium, Total Recoverable	107	mg/L	0.20	1	05/01/23 14:17			
5010 MET ICP	Analytical Met		010 Preparation Meth Kansas City	nod: EP/	A 3010			
Lithium, Total Recoverable	0.012	mg/L	0.010	1	03/16/23 09:10	03/22/23 11:13	7439-93-2	
_ithium, Total Recoverable	0.016	mg/L	0.010	1	05/01/23 14:17			
200.8 MET ICPMS	Analytical Met	hod: EPA 20	00.8 Preparation Met	hod: EP	'A 200.8			
	Pace Analytica		•					
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:50	7440-38-2	
Arsenic, Total Recoverable	0.0076	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:21	7440-38-2	
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:50	7440-48-4	
Cobalt, Total Recoverable	0.0018	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:21	7440-48-4	
Molybdenum, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:50	7439-98-7	
Molybdenum, Total Recoverable	0.30	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:21	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:50	7782-49-2	
Selenium, Total Recoverable	0.0011	mg/L	0.0010	1	05/01/23 14:17	05/02/23 11:21	7782-49-2	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	40C					
	Pace Analytica	al Services -	Kansas City					
Total Dissolved Solids	2030	mg/L	20.0	1		03/16/23 09:39)	
Total Dissolved Solids	1930	mg/L	66.7	1		04/26/23 08:52	2	H1
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
	Pace Analytica	al Services -	Kansas City					
oH at 25 Degrees C	7.2	Std. Units		1		03/16/23 10:38		H6
oH at 25 Degrees C	7.2	Std. Units	0.10	1		04/28/23 12:34	ļ	H6
800.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.00					
	Pace Analytica	al Services -	Kansas City					
Chloride	71.6	mg/L	10.0	10		03/17/23 19:44	16887-00-6	
Chloride	79.2	mg/L	10.0	10		04/26/23 22:28	3 16887-00-6	H1
Fluoride	0.45	mg/L	0.20	1		03/17/23 19:04	16984-48-8	
Fluoride	0.49	mg/L	0.20	1		04/26/23 22:16	16984-48-8	H1
Sulfate	1010	mg/L	100	100		03/21/23 20:18	3 14808-79-8	
Sulfate	1220	mg/L	100	100		04/26/23 22:47		H1



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

Sample: DUP JEC FAA-031423	Lab ID: 604	23980004	Collected: 03/14/2	23 16:56	Received: 03	/15/23 12:40 M	latrix: Water					
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua				
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7											
	Pace Analytical Services - Kansas City											
Barium, Total Recoverable	0.045	mg/L	0.0050	1	03/16/23 09:10	03/22/23 10:52	7440-39-3					
Boron, Total Recoverable	0.70	mg/L	0.10	1	03/16/23 09:10	03/22/23 10:52	7440-42-8					
Calcium, Total Recoverable	178	mg/L	0.20	1	03/16/23 09:10	03/22/23 10:52	7440-70-2					
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Met	hod: EP	A 3010							
	Pace Analytical Services - Kansas City											
Lithium, Total Recoverable	0.018	mg/L	0.010	1	03/16/23 09:10	03/22/23 11:15	7439-93-2					
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8											
	Pace Analytical Services - Kansas City											
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:53	7440-38-2					
Cobalt, Total Recoverable	0.0014	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:53	7440-48-4					
Molybdenum, Total Recoverable	0.0090	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:53	7439-98-7					
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/16/23 09:10	03/21/23 15:53	7782-49-2					
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	40C									
	Pace Analytic	al Services -	Kansas City									
Total Dissolved Solids	1380	mg/L	13.3	1		03/16/23 09:40						
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B									
• •	Pace Analytic	al Services -	Kansas City									
pH at 25 Degrees C	7.0	Std. Units	0.10	1		03/20/23 15:25		H6				
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0									
-	Pace Analytical Services - Kansas City											
Chloride	94.4	mg/L	10.0	10		03/17/23 20:11	16887-00-6					
Fluoride	<0.20	mg/L	0.20	1		03/17/23 19:57						
Sulfate	467	mg/L	100	100		03/21/23 20:32	14808-79-8					



QUALITY CONTROL DATA

Analysis Method:

< 0.20

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Barium

Boron

Calcium

Date: 05/09/2023 04:36 PM

QC Batch: 836895

QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total

Laboratory: Pace Analytical Services - Kansas City

03/22/23 10:37

0.20

EPA 200.7

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

METHOD BLANK: 3319069 Matrix: Water

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

mg/L

Blank Reporting Qualifiers Parameter Units Result Limit Analyzed mg/L < 0.0050 0.0050 03/22/23 10:37 mg/L <0.10 0.10 03/22/23 10:37

LABORATORY CONTROL SAMPLE: 3319070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L		0.98	98	85-115	
Boron	mg/L	1	0.96	96	85-115	
Calcium	mg/L	10	9.9	99	85-115	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3319	071	3319072								
			MS	MSD								
		60423980001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.031	1	1	1.0	1.0	101	100	70-130	1	20	
Boron	mg/L	0.46	1	1	1.5	1.5	103	102	70-130	0	20	
Calcium	mg/L	205	10	10	226	227	206	218	70-130	1	20	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 844499

QC Batch Method: EPA 200.7

Analysis Method: EPA 200.7

Analysis Description: 200.7 Metals, Total

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980002, 60423980003

METHOD BLANK: 3347003

Matrix: Water

Associated Lab Samples: 6

Date: 05/09/2023 04:36 PM

Parameter

60423980002, 60423980003

Units

mg/L

 Blank Result
 Reporting Limit
 Analyzed
 Qualifiers

 <0.0050</td>
 0.0050
 05/02/23 09:11

 <0.10</td>
 0.10
 05/02/23 09:11

Barium Boron Calcium

mg/L <0.10 mg/L <0.20

0.20 05/02/23 09:11

LABORATORY CONTROL SAMPLE: 3347004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Barium	mg/L		0.93	93	85-115	
Boron	mg/L	1	0.93	93	85-115	
Calcium	mg/L	10	9.6	96	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347005 3347006												
			MS	MSD								
		60423980002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.045	1	1	0.96	0.94	91	90	70-130	2	20	
Boron	mg/L	0.71	1	1	1.6	1.6	90	89	70-130	1	20	
Calcium	mg/L	178	10	10	181	180	30	18	70-130	1	20	M1



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

QC Batch: 836897 Analysis Method: EPA 200.8 QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET

> Laboratory: Pace Analytical Services - Kansas City

60423980001, 60423980002, 60423980003, 60423980004Associated Lab Samples:

METHOD BLANK: 3319077 Matrix: Water

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

		Biank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	03/21/23 15:31	
Cobalt	mg/L	< 0.0010	0.0010	03/21/23 15:31	
Molybdenum	mg/L	< 0.0010	0.0010	03/21/23 15:31	
Selenium	mg/L	< 0.0010	0.0010	03/21/23 15:31	

LABORATORY CONTROL SAMPLE:	3319078	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	0.04	0.039	97	85-115	
Cobalt	mg/L	0.04	0.039	98	85-115	
Molybdenum	mg/L	0.04	0.041	102	85-115	
Selenium	ma/l	0.04	0.040	100	85-115	

MATRIX SPIKE & MATRIX S	SPIKE DUPLIC	CATE: 3319	079		3319080							
			MS	MSD								
	6	0423980002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/L	<0.0010	0.04	0.04	0.039	0.039	96	96	70-130	0	20	
Cobalt	mg/L	0.0014			0.038	0.037				2	20	
Molybdenum	mg/L	0.0093	0.04	0.04	0.042	0.042	101	101	70-130	0	20	
Selenium	mg/L	<0.0010			0.038	0.038				1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

QC Batch: 844501 QC Batch Method: EPA 200.8 Analysis Method: EPA 200.8
Analysis Description: 200.8 MET

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980002, 60423980003

METHOD BLANK: 3347011 Matrix: Water

Associated Lab Samples: 60423980002, 60423980003

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	mg/L	<0.0010	0.0010	05/02/23 11:12	
Cobalt	mg/L	< 0.0010	0.0010	05/02/23 11:12	
Molybdenum	mg/L	< 0.0010	0.0010	05/02/23 11:12	
Selenium	mg/L	< 0.0010	0.0010	05/02/23 11:12	

LABORATORY CONTROL SAMPLE:	3347012	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	0.04	0.039	98	85-115	
Cobalt	mg/L	0.04	0.038	96	85-115	
Molybdenum	mg/L	0.04	0.039	96	85-115	
Selenium	mg/L	0.04	0.041	103	85-115	

MATRIX SPIKE & MATRIX	SPIKE DUPLIC	CATE: 3347	'013 MS	MSD	3347014							
Parameter	6 Units	0423980003 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.0076	0.04	0.04	0.046	0.046	96	95	70-130	1 1	20	
Cobalt	mg/L	0.0078	0.04	0.04	0.040	0.040	95	93	70-130	2	_	
Molybdenum	mg/L	0.30	0.04	0.04	0.35	0.34	119	106	70-130	2	20	
Selenium	mg/L	0.0011	0.04	0.04	0.040	0.040	98	97	70-130	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

QC Batch: 836896 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980001, 60423980003, 60423980004

METHOD BLANK: 3319073 Matrix: Water

Associated Lab Samples: 60423980001, 60423980003, 60423980004

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 03/22/23 11:00

LABORATORY CONTROL SAMPLE: 3319074

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 1.0 100 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3319075 3319076

MS MSD

60423980001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits 0.014 101 20 Lithium mg/L 1.0 1.0 102 75-125 0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

QC Batch: 844500 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980002, 60423980003

METHOD BLANK: 3347007 Matrix: Water

Associated Lab Samples: 60423980002, 60423980003

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 05/02/23 09:30

LABORATORY CONTROL SAMPLE: 3347008

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 0.92 92 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3347009 3347010

MS MSD

60423980002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits 0.022 0.95 Lithium mg/L 0.94 93 92 75-125 20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 836930 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

METHOD BLANK: 3319188 Matrix: Water

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L <5.0 5.0 03/16/23 09:38

LABORATORY CONTROL SAMPLE: 3319189

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 1000 100 80-120

SAMPLE DUPLICATE: 3319190

60423873001 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 533 **Total Dissolved Solids** mg/L 558 5 10

SAMPLE DUPLICATE: 3319191

Date: 05/09/2023 04:36 PM

60423977003 Dup Max RPD RPD Parameter Units Result Result Qualifiers Total Dissolved Solids 1530 mg/L 1460 5 10

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

SM 2540C

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 843668 Analysis Method:

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980002, 60423980003

METHOD BLANK: 3343549 Matrix: Water

Associated Lab Samples: 60423980002, 60423980003

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L <5.0 5.0 04/26/23 08:51

LABORATORY CONTROL SAMPLE: 3343550

Parameter Units Spike LCS LCS % Rec
Conc. Result % Rec Limits Qualifiers

Total Dissolved Solids mg/L 1000 1000 100 80-120

SAMPLE DUPLICATE: 3343551

Date: 05/09/2023 04:36 PM

Parameter Units 60423973001 Dup Max Result RPD Qualifiers

Total Dissolved Solids mg/L 77000 80500 4 10 H1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 836964 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980001, 60423980003

SAMPLE DUPLICATE: 3319334

Date: 05/09/2023 04:36 PM

		60423985001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
pH at 25 Degrees C	Std. Units	6.7	6.7	1		5 H6



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 837514 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980002, 60423980004

SAMPLE DUPLICATE: 3321224

Date: 05/09/2023 04:36 PM

60423972006 Dup Max Parameter Units Result RPD RPD Qualifiers Result 7.1 pH at 25 Degrees C 7.2 2 5 H6 Std. Units



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 843535 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980003

SAMPLE DUPLICATE: 3343256

Date: 05/09/2023 04:36 PM

60423980003 Dup Max Parameter Units Result RPD RPD Qualifiers Result 7.2 pH at 25 Degrees C 7.8 7 5 D6,H6 Std. Units



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 836993 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

METHOD BLANK: 3319519 Matrix: Water
Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

		Dialik	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/17/23 10:02	
Fluoride	mg/L	<0.20	0.20	03/17/23 10:02	
Sulfate	mg/L	<1.0	1.0	03/17/23 10:02	

METHOD BLANK: 3322662 Matrix: Water

Associated Lab Samples: 60423980001, 60423980002, 60423980003, 60423980004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/21/23 12:58	
Fluoride	mg/L	<0.20	0.20	03/21/23 12:58	
Sulfate	mg/L	<1.0	1.0	03/21/23 12:58	

LABORATORY CONTROL SAMPLE: 3319520

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		4.8	95	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	5	4.9	99	90-110	

LABORATORY CONTROL SAMPLE: 3322663

Date: 05/09/2023 04:36 PM

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.4	98	90-110	
Sulfate	mg/L	5	4.8	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3319521 3319522

Parameter	Units	60424061001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1080	1000	1000	2210	2220	112	114	80-120	1	15	
Fluoride	mg/L	ND	500	500	622	615	124	123	80-120	1	15	M1
Sulfate	mg/L	261	1000	1000	1440	1400	118	114	80-120	3	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

QC Batch: 843527 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423980003

METHOD BLANK: 3343249 Matrix: Water

Associated Lab Samples: 60423980003

Blank Reporting Limit Qualifiers Parameter Units Result Analyzed Chloride mg/L <1.0 1.0 04/26/23 21:25 Fluoride mg/L < 0.20 0.20 04/26/23 21:25 Sulfate mg/L 04/26/23 21:25 <1.0 1.0

METHOD BLANK: 3345680 Matrix: Water

Associated Lab Samples: 60423980003

Date: 05/09/2023 04:36 PM

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	04/28/23 07:38	
Fluoride	mg/L	<0.20	0.20	04/28/23 07:38	
Sulfate	mg/L	<1.0	1.0	04/28/23 07:38	

LABORATORY CONTROL SAMPLE:	3343250					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L		4.9	97	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

LABORATORY CONTROL SAMPLE:	3345681					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	5	4.9	97	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3343	252		3343251							
Parameter	Units	60427090003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1640	50	50	1700	1720	127	162	80-120	1	15	E,M1
Fluoride	mg/L	ND	25	25	12.3	12.3	49	49	80-120	1	15	M1
Sulfate	mg/L	28.1	50	50	53.2	55.3	50	54	80-120	4	15	M1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

SAMPLE DUPLICATE: 3343253

Parameter	Units	60427090003 Result	Dup Result	RPD	Max RPD	Qualifiers
Chloride	mg/L	1640	1700	3	15	
Fluoride	mg/L	ND	<1.0		15	
Sulfate	mg/L	28.1	27.8	1	15	



QUALIFIERS

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 05/09/2023 04:36 PM

	D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
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E Analyte concentration exceeded the calibration range. The reported result is estimated.

H1 Analysis conducted outside the EPA method holding time.

H6 Analysis initiated outside of the 15 minute EPA required holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60423980

Date: 05/09/2023 04:36 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60423980001	MW FAA-3-031423	EPA 200.7	836895	EPA 200.7	836978
60423980002	MW FAA-4-031423	EPA 200.7	836895	EPA 200.7	836978
60423980002	MW FAA-4-031423	EPA 200.7	844499	EPA 200.7	844626
60423980003	MW FAA-6-031423	EPA 200.7	836895	EPA 200.7	836978
60423980003	MW FAA-6-031423	EPA 200.7	844499	EPA 200.7	844626
60423980004	DUP JEC FAA-031423	EPA 200.7	836895	EPA 200.7	836978
0423980001	MW FAA-3-031423	EPA 3010	836896	EPA 6010	836979
0423980002	MW FAA-4-031423	EPA 3010	844500	EPA 6010	844627
60423980003	MW FAA-6-031423	EPA 3010	836896	EPA 6010	836979
60423980003	MW FAA-6-031423	EPA 3010	844500	EPA 6010	844627
60423980004	DUP JEC FAA-031423	EPA 3010	836896	EPA 6010	836979
60423980001 60423980002	MW FAA-3-031423 MW FAA-4-031423	EPA 200.8 EPA 200.8	836897 836897	EPA 200.8 EPA 200.8	836980 836980
0423980002	MW FAA-4-031423	EPA 200.8	844501	EPA 200.8	844628
0423980003	MW FAA-6-031423	EPA 200.8	836897	EPA 200.8	836980
0423980003	MW FAA-6-031423	EPA 200.8	844501	EPA 200.8	844628
0423980004	DUP JEC FAA-031423	EPA 200.8	836897	EPA 200.8	836980
60423980001 60423980002	MW FAA-3-031423 MW FAA-4-031423	SM 2540C SM 2540C	836930 836930		
0423980002	MW FAA-4-031423	SM 2540C	843668		
0423980003	MW FAA-6-031423	SM 2540C	836930		
0423980003	MW FAA-6-031423	SM 2540C	843668		
0423980004	DUP JEC FAA-031423	SM 2540C	836930		
0423980001	MW FAA-3-031423	SM 4500-H+B	836964		
60423980002	MW FAA-4-031423	SM 4500-H+B	837514		
60423980003	MW FAA-6-031423	SM 4500-H+B	836964		
60423980003	MW FAA-6-031423	SM 4500-H+B	843535		
60423980004	DUP JEC FAA-031423	SM 4500-H+B	837514		
60423980001 60423980002 60423980003	MW FAA-3-031423 MW FAA-4-031423 MW FAA-6-031423	EPA 300.0 EPA 300.0 EPA 300.0	836993 836993 836993		
60423980003	MW FAA-6-031423	EPA 300.0	843527		
60423980004	DUP JEC FAA-031423	EPA 300.0	836993		

Pace

DC#_Title: ENV-FRM-LENE-0009_Sample



Revision: 2	Effective Date: 01/12/20	022 60423960	
Client Name: Evergy			
Courier: FedEx UPS VIA Clay	PEX □ ECI □	Pace Xroads Client Other	
Tracking #:	Pace Shipping Label Use	d? Yes□ No⊅	
Custody Seal on Cooler/Box Present: Yes □ No 🖊	Seals intact: Yes		
Packing Material: Bubble Wrap □ Bubble Ba		None □ Other Ø 7 / (
	e of Ice Wet Blue No	Date and initials of	
Cooler Temperature (°C): As-read 1,9 Corr. F Temperature should be above freezing to 6°C	factor <u>~O . (</u> Correc	ted (, 8 examining content	S:O∑∙/
Chain of Custody present:	Yes 🗆 No 🗆 N/A		
Chain of Custody relinquished:	Yes Ono On/A		
Samples arrived within holding time:	√ ✓Yes □No □N/A		
Short Hold Time analyses (<72hr):	□Yes ZNo □N/A		
Rush Turn Around Time requested:	□Yes No □N/A		
Sufficient volume:	✓Yes □No □N/A		
Correct containers used:	✓Yes □No □N/A		
Pace containers used:	✓Yes □No □N/A		
Containers intact:	∕☐Yes □No □N/A		
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No □N/A		
Filtered volume received for dissolved tests?	□Yes □No □M/A		
Sample labels match COC: Date / time / ID / analyses	□xes □No □N/A		
Samples contain multiple phases? Matrix: 🕡	- □Yes □M6 □N/A		
Containers requiring pH preservation in compliance?	ØYes □No □N/A	List sample IDs, volumes, lot #'s of preserv date/time added.	ative and
	DT#: 67187		
Cyanide water sample checks: Lead acetate strip turns dark? (Record only)	□Yes □No		
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No		
Trip Blank present:	□Yes □No ☑N/A		
Headspace in VOA vials (>6mm):	□Yes □No □N/A		
Samples from USDA Regulated Area: State:	□Yes □No □Ñ/A		
Additional labels attached to 5035A / TX1005 vials in the fi	eld? □Yes □No □M/A		
Client Notification/ Resolution: Copy CC	C to Client? Y / N	Field Data Required? Y / N	

Date:

Project Manager Review:



CHAIN-OF-CUSTODY / Analytical Request Document

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

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Section	I A d Client Information;	Section B Required Pro	iect Info	ormation:						tion C		·														Pa	age:		of	
Company		Report To: J	-						Atten	ce Info ntion:		Acco	ınts	Paya	able				_	П						_				
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	SAMPLE ID OIL WIPE AIR	OL WP AR	<u> </u>	-	1		, ::	AT C	# OF CONTAINERS	Н			Ш			est	200.7 Total Metals	200.8 Total Metals		4	1					Ш	je Lje			
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ITEM			SAN SAN	DATE	TIME	DATE	TIME	SAR	#	5	H25	되모	Š	e :	Metha Other	↓Analysis	200		5	300:	6010						Re.	Pace	Project N	o./ Lab I.D.
1	MW FAA-3-031423	V	πG	NA.	NA	3/14/2023	1455		5	3		2					х	х	х	x >	(x									
2	MW FAA-4-031423	Ň	ПG	NA	NA	3/15/2023	1656		5	3		2					х	х	х	x >	(x						Ш			
3	MW FAA-6-031423	N	т G	NA	NA	3/16/2023	1535		5	3		2					х	х	х	x >	(x									
4	Dup JEC FAA-031423	N N	тG	NA	NA	3/17/2023	1656		5	3		2					х	x	X	x >	< x									
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Client:	Evergy	Profile #	
Site:	JEC FAL CCR	Notes	

16oz unpresserved plstic

COC Line Item	Matrix	VG9H	DG9H	DG9Q	VG9U	Deson	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	врзг	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
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2	45																		1		>		9								
3	M																				2		a								
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Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	T	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCI clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		DA-4-t-
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		Matrix
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
				BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		
				BP4S	125mL H2SO4 plastic	-1	

WPDU

Work Order Number:

6042 3980





April 10, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: MW-FAA-5

Pace Project No.: 60423985

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on March 15, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Kansas City

REVISED 4/10/23

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller alice.spiller@pacelabs.com (913)599-5665

Alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich



9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: MW-FAA-5 Pace Project No.: 60423985

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 22-031-0 Illinois Certification #: 2000302021-3

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212023-1 Oklahoma Certification #: 2022-057 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-21-15 Utah Certification #: KS000212022-12

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: MW-FAA-5 Pace Project No.: 60423985

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60423985001	MW-FAA-5-031423	Water	03/14/23 09:55	03/15/23 12:40



SAMPLE ANALYTE COUNT

Project: MW-FAA-5 Pace Project No.: 60423985

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60423985001	MW-FAA-5-031423	EPA 200.7	ALH	6	PASI-K
		EPA 6010	ALH	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	JXD	1	PASI-K
		SM 2540C	MLD	1	PASI-K
		SM 4500-H+B	CRN2	1	PASI-K
		EPA 300.0	CRN2	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City





PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Date: April 10, 2023

Amended to report data from reanalysis of 245.1 mercury per client request.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: April 10, 2023

General Information:

1 sample was analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Method: EPA 6010 Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: April 10, 2023

General Information:

1 sample was analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: April 10, 2023

General Information:

1 sample was analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Method: EPA 245.1 Description: 245.1 Mercury

Client: Evergy Kansas Central, Inc.

Date: April 10, 2023

General Information:

1 sample was analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Method: SM 2540C

Description: 2540C Total Dissolved Solids **Client:** Evergy Kansas Central, Inc.

Date: April 10, 2023

General Information:

1 sample was analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Method: SM 4500-H+B

Description: 4500H+ pH, Electrometric **Client:** Evergy Kansas Central, Inc.

Date: April 10, 2023

General Information:

1 sample was analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA required holding time.

• MW-FAA-5-031423 (Lab ID: 60423985001)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60423985

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: April 10, 2023

General Information:

1 sample was analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 837826

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60423225004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3322027)
 - Chloride
- MSD (Lab ID: 3322028)
 - Chloride

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



ANALYTICAL RESULTS

Project: MW-FAA-5 Pace Project No.: 60423985

Date: 04/10/2023 01:38 PM

Sample: MW-FAA-5-031423	Lab ID: 604	23985001	Collected: 03/14/2	23 09:55	Received: 03	3/15/23 12:40 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	thod: EP	A 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	0.011	mg/L	0.0050	1	03/20/23 12:43	03/27/23 18:32	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/20/23 12:43			
Boron, Total Recoverable	1.7	mg/L	0.10	1	03/20/23 12:43	03/27/23 18:32	7440-42-8	
Calcium, Total Recoverable	523	mg/L	0.20	1	03/20/23 12:43	03/27/23 18:32	2 7440-70-2	
Chromium, Total Recoverable	0.022	mg/L	0.0050	1	03/20/23 12:43	03/27/23 18:32	2 7440-47-3	
_ead, Total Recoverable	<0.010	mg/L	0.010	1	03/20/23 12:43			
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Met	hod: EP/	A 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	0.15	mg/L	0.010	1	03/20/23 12:43	03/27/23 19:06	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	thod: EP	A 200.8			
	Pace Analytica	al Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	03/20/23 12:43	03/22/23 17:05	7440-36-0	
Arsenic, Total Recoverable	0.0054	mg/L	0.0010	1	03/20/23 12:43	03/22/23 17:05	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	03/20/23 12:43	03/22/23 17:05	7440-43-9	
Cobalt, Total Recoverable	0.0036	mg/L	0.0010	1	03/20/23 12:43	03/22/23 17:05	7440-48-4	
Molybdenum, Total Recoverable	0.022	mg/L	0.0010	1	03/20/23 12:43			
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/20/23 12:43	03/22/23 17:05	7782-49-2	
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	03/20/23 12:43			
245.1 Mercury	Analytical Met	hod: EPA 24	5.1 Preparation Met	thod: EP	A 245.1			
·	Pace Analytica		•					
Mercury	<0.00020	mg/L	0.00020	1	04/06/23 12:02	04/07/23 08:42	7439-97-6	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	10C					
	Pace Analytica							
Total Dissolved Solids	3270	mg/L	66.7	1		03/21/23 10:44	ļ.	
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
	Pace Analytica	al Services -	Kansas City					
oH at 25 Degrees C	6.7	Std. Units	0.10	1		03/16/23 10:38	3	H6
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
•	Pace Analytica	al Services -	Kansas City					
Chloride	77.4	mg/L	20.0	20		03/22/23 23:05	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		03/22/23 22:52		
Sulfate	2080	mg/L	200	200		03/23/23 16:04		



QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60423985

QC Batch: 840346 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423985001

METHOD BLANK: 3331213 Matrix: Water

Associated Lab Samples: 60423985001

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Mercury mg/L <0.00020 0.00020 04/07/23 08:37

LABORATORY CONTROL SAMPLE: 3331214

Date: 04/10/2023 01:38 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Mercury mg/L 0.005 0.0047 94 85-115

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3331215 3331216

MS MSD

60425223001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits 0.0042 20 Mercury mg/L <0.20 ug/L 0.005 0.005 0.0040 84 80 70-130 5

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60423985

QC Batch: 837358

QC Batch Method:

Analysis Method: EPA 200.7

200.7 Metals, Total

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60423985001

EPA 200.7

METHOD BLANK: 3320870

Date: 04/10/2023 01:38 PM

Matrix: Water

Analysis Description:

Associated Lab Samples: 60423985001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	03/27/23 18:19	
Beryllium	mg/L	< 0.0010	0.0010	03/27/23 18:19	
Boron	mg/L	<0.10	0.10	03/27/23 18:19	
Calcium	mg/L	<0.20	0.20	03/27/23 18:19	
Chromium	mg/L	< 0.0050	0.0050	03/27/23 18:19	
Lead	mg/L	< 0.010	0.010	03/27/23 18:19	

LABORATORY CONTROL SAMPLE:	3320871	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L		1.0	100	85-115	
Beryllium	mg/L	1	1.0	104	85-115	
Boron	mg/L	1	0.98	98	85-115	
Calcium	mg/L	10	10.3	103	85-115	
Chromium	mg/L	1	1.0	102	85-115	
Lead	mg/L	1	1.1	105	85-115	

MATRIX SPIKE & MATRIX SP	IKE DUPI	LICATE: 3320	872		3320873							
			MS	MSD								
		60423984001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.040	1	1	1.0	1.0	100	100	70-130	0	20	
Beryllium	mg/L	< 0.0010	1	1	1.0	1.0	102	100	70-130	2	20	
Boron	mg/L	0.41	1	1	1.4	1.4	97	98	70-130	0	20	
Calcium	mg/L	204	10	10	212	211	79	73	70-130	0	20	
Chromium	mg/L	< 0.0050	1	1	1.0	0.99	100	99	70-130	2	20	
Lead	mg/L	< 0.010	1	1	1.0	1.0	100	100	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60423985

QC Batch: 837360 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60423985001

METHOD BLANK: 3320878 Matrix: Water

Associated Lab Samples: 60423985001

Date: 04/10/2023 01:38 PM

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	03/22/23 16:40	
Arsenic	mg/L	< 0.0010	0.0010	03/22/23 16:40	
Cadmium	mg/L	< 0.00050	0.00050	03/22/23 16:40	
Cobalt	mg/L	< 0.0010	0.0010	03/22/23 16:40	
Molybdenum	mg/L	< 0.0010	0.0010	03/22/23 16:40	
Selenium	mg/L	< 0.0010	0.0010	03/22/23 16:40	
Thallium	mg/L	< 0.0010	0.0010	03/22/23 16:40	

LABORATORY CONTROL SAMPLE:	3320879					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Antimony	mg/L	0.04	0.041	103	85-115	
Arsenic	mg/L	0.04	0.040	100	85-115	
Cadmium	mg/L	0.04	0.041	102	85-115	
Cobalt	mg/L	0.04	0.040	100	85-115	
Molybdenum	mg/L	0.04	0.040	101	85-115	
Selenium	mg/L	0.04	0.043	108	85-115	
Thallium	mg/L	0.04	0.041	102	85-115	

MATRIX SPIKE & MATRIX	SPIKE DUPI	LICATE: 3320		MCD	3320881							
		60423984002	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/L	<0.0010	0.04	0.04	0.040	0.040	99	99	70-130	0	20	
Arsenic	mg/L	0.0013	0.04	0.04	0.041	0.041	100	99	70-130	1	20	
Cadmium	mg/L	< 0.00050	0.04	0.04	0.038	0.038	94	94	70-130	0	20	
Cobalt	mg/L	0.0010	0.04	0.04	0.040	0.040	97	97	70-130	0	20	
Molybdenum	mg/L	0.0022	0.04	0.04	0.044	0.044	106	105	70-130	0	20	
Selenium	mg/L	< 0.0010	0.04	0.04	0.040	0.040	100	99	70-130	1	20	
Thallium	mg/L	< 0.0010	0.04	0.04	0.038	0.038	95	95	70-130	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Parameter

Date: 04/10/2023 01:38 PM

Lithium

Units

mg/L

MW-FAA-5

QUALITY CONTROL DATA

Project: Pace Project No.: 60423985 QC Batch: 837359 Analysis Method: EPA 6010 QC Batch Method: EPA 3010 Analysis Description: 6010 MET Laboratory: Pace Analytical Services - Kansas City 60423985001 Associated Lab Samples: METHOD BLANK: Matrix: Water Associated Lab Samples: 60423985001 Blank Reporting Qualifiers Parameter Units Result Limit Analyzed Lithium < 0.010 0.010 03/27/23 18:54 mg/L LABORATORY CONTROL SAMPLE: 3320875 Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 1.0 100 80-120 MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3320876 3320877 MSD MS 60423984001 Spike Spike MS MSD MS MSD % Rec Max

Conc.

Result 0.017 Conc.

Result

1.0

Result

1.0

% Rec

99

% Rec

101

Limits

75-125

RPD

2

RPD

20

Qual

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Total Dissolved Solids

Date: 04/10/2023 01:38 PM

QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60423985 QC Batch: 837624 Analysis Method: SM 2540C QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids Laboratory: Pace Analytical Services - Kansas City Associated Lab Samples: 60423985001 METHOD BLANK: 3321463 Matrix: Water Associated Lab Samples: 60423985001 Blank Reporting Qualifiers Parameter Units Result Limit Analyzed Total Dissolved Solids <5.0 5.0 03/21/23 10:43 mg/L LABORATORY CONTROL SAMPLE: 3321464 Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 998 100 80-120 SAMPLE DUPLICATE: 3321465 60423972001 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 515 **Total Dissolved Solids** mg/L 523 2 10 SAMPLE DUPLICATE: 3321466 60423984003 Dup Max RPD RPD Parameter Units Result Result Qualifiers

1130

mg/L

1230

10

8

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project:

MW-FAA-5

Pace Project No.:

60423985

QC Batch: QC Batch Method: 836964

SM 4500-H+B

Analysis Method:

SM 4500-H+B

Analysis Description:

4500H+B pH

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60423985001

Parameter

SAMPLE DUPLICATE: 3319334

60423985001 Result

Dup Result

RPD

Max RPD

Qualifiers

pH at 25 Degrees C

Date: 04/10/2023 01:38 PM

Units Std. Units

6.7

6.7

5 H6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: MW-FAA-5
Pace Project No.: 60423985

QC Batch: 837826 QC Batch Method: EPA 300.0 Analysis Method:

EPA 300.0

Analysis Description:

300.0 IC Anions

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60423985001

METHOD BLANK: 3322025

Matrix: Water

Associated Lab Samples: 60423985001

Blank Reporting Limit Qualifiers Parameter Units Result Analyzed <1.0 mg/L 1.0 03/22/23 13:36 mg/L < 0.20 0.20 03/22/23 13:36 mg/L <1.0 1.0 03/22/23 13:36

METHOD BLANK: 3324423

Matrix: Water

Associated Lab Samples:

Date: 04/10/2023 01:38 PM

Chloride

Fluoride

Sulfate

60423985001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	03/23/23 17:24	
Fluoride	mg/L	< 0.20	0.20	03/23/23 17:24	
Sulfate	mg/L	<1.0	1.0	03/23/23 17:24	

LABORATORY CONTROL SAMPLE: 3322026

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		4.8	96	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	5	5.1	102	90-110	

LABORATORY CONTROL SAMPLE: 3324424

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	5.2	103	90-110	_
Fluoride	mg/L	2.5	2.7	107	90-110	
Sulfate	mg/L	5	5.3	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3322027 3322028

Parameter	Units	60423225004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	62.7	50	50	101	98.5	77	72	80-120	3	15	M1
Fluoride	mg/L	<0.20	2.5	2.5	2.6	2.5	103	100	80-120	3	15	
Sulfate	mg/L	1120	1000	1000	2100	2140	97	102	80-120	2	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: MW-FAA-5 Pace Project No.: 60423985

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 04/10/2023 01:38 PM

H6 Analysis initiated outside of the 15 minute EPA required holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5 Pace Project No.: 60423985

Date: 04/10/2023 01:38 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60423985001	MW-FAA-5-031423	EPA 200.7	837358	EPA 200.7	837527
60423985001	MW-FAA-5-031423	EPA 3010	837359	EPA 6010	837528
60423985001	MW-FAA-5-031423	EPA 200.8	837360	EPA 200.8	837529
60423985001	MW-FAA-5-031423	EPA 245.1	840346	EPA 245.1	840564
60423985001	MW-FAA-5-031423	SM 2540C	837624		
60423985001	MW-FAA-5-031423	SM 4500-H+B	836964		
60423985001	MW-FAA-5-031423	EPA 300.0	837826		

DC#_Title: ENV-FRM-LENE-0009_Sample



INEVISION, 2 Em	ective Date: U1/12/20	Issued by. Leffexa
Client Name: Frergy Kansas (entra l	
Courier: FedEx □ UPS □ VIA □ Clay □	PEX □ ECI □	Pace ☐ Xroads ☐ Client ☐ Other ☐
racking #: Pa	ce Shipping Label Used	? Yes to No □
Custody Seal on Cooler/Box Present: Yes □ No 😉	Seals intact: Yes □	
Packing Material: Bubble Wrap ☐ Bubble Bags	□ Foam □	None1☑ Other □
hermometer Used: T2 4 b Type o	of Ice: 🕼 Blue Non	ie _
cooler Temperature (°C): As-read 1.3 Corr. Fac	tor 0, / Correcte	Date and initials of person examining contents:
emperature should be above freezing to 6°C		AF 3/15
Chain of Custody present:	Maries □No □N/A	- 1
Chain of Custody relinquished:	res □No □N/A	
amples arrived within holding time:	ØYes □No □N/A	
hort Hold Time analyses (<72hr):	□Yes IMO □N/A	
ush Turn Around Time requested:	□Yes DNo □N/A	
ufficient volume:	Yes No N/A	
orrect containers used:	Yes ONO ON/A	
ace containers used:	tres □No □N/A	
ontainers intact:	tyes □No □N/A	
npreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No ŪN/A	
Itered volume received for dissolved tests?	□Yes □No □N/A	
	Dres Ono On/A	
ample labels match COC: Date / time / ID / analyses		
amples contain multiple phases? Matrix: W'	□Yes ☑No □N/A	List samula IDa valvas a latitle of consult in the
ontainers requiring pH preservation in compliance? INO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide)	. lo	List sample IDs, volumes, lot #'s of preservative and the date/time added.
xceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	6204001	
yanide water sample checks:		
ead acetate strip turns dark? (Record only)	☐Yes ☐No	
tassium iodide test strip turns blue/purple? (Preserve)	☐Yes ☐No	
p Blank present:	□Yes □No b N/A	
eadspace in VOA vials (>6mm):	□Yes □No ☑N/A	
amples from USDA Regulated Area: State:	□Yes □No ŪN/Ā	
ditional labels attached to 5035A / TX1005 vials in the field	? □Yes □No MIN/A	
ent Notification/ Resolution: Copy COC to	Client? Y / N	Field Data Required? Y / N
erson Contacted: Date/1	ime:	
omments/ Resolution:		
oject Manager Review:	_ Date:	



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section	Submitting a sample via this c	nain of custoo Section B	y con	stitutes ac	knowledgi	ment and	accepta	nce o	of the	Pac	e Ten	ns ar	nd Co	nditi	ions fo	ound a	at ht	tps://	info.	pace	labs, c	om/	hubfs	/pas	-stan	dard-te	erms.r	odf.		
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	5, Phoenix, AZ 85004								Addr			ame A		Val 136	15 CEII	паі		_	_	_		_	-							
Email:	skaney@haleyaldrich.com	Purchase O	der#:					_		e Quo		21107	o A		_	_			_	-			-	-			Regula	atory Agen	cy	
Phone:	507-251-2232 Fax:	Project Nam	e:	MW-FAA-5					_		ject Ma	nage	r:	alice	spille,	r@pac	celab	s cor	n	_		_	-	7.5			Ctat	/ Location		
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Client:	Evergy	kursas	lentro	L

Profile # 9697-10

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Site:	MW-	FAH-	5
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Notes _____

COC Line Item	Matrix	VG9H	реэн	DG9G	VG9U	nesa	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AGSU	JGFU	WGKU	WGDU	BP1U	BP2U	вРз∪	BP1N	BP3N	BP3F	BP3S	врзс	BP3Z	WPDU	ZPLC	Other		
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Container Codes

		Glass			Plastic	Misc.		
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	11	Wipe/Swab	
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate	
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag	
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter	
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes	
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit	
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can	
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic			
VG9T	40mL Na Thio, clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic			
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		Matrix	
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		1000 at 1100	
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water	
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid	
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid	
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL	
VVODO	1002 Glear Son Jan	AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe	
		, .000		BP4U	125mL unpreserved plastic	DW	Drinking Water	
				BP4N	125mL HNO3 plastic		· · · · · · · · · · · · · · · · · · ·	
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BP4S

WPDU

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

60423985

ATTACHMENT 2-2 June 2023 Annual Assessment Sampling Event Laboratory Analytical Report

Pace Analytical Services, LLC 9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



July 11, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller alice.spiller@pacelabs.com

(913)599-5665 PM Lab Management

alice Spiller

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich



9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417 ANABISO/IEC 17025:2017 Rad Cert#: L24170

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 2950 Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA010 Louisiana DEQ/TNI Certification #: 04086

Maine Certification #: 2023021 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002-015 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification

Ohio EPA Rad Approval: #41249

Tennessee Certification #: TN02867

Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad



SAMPLE SUMMARY

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60430286001	MW FAA-3-060623	Water	06/06/23 11:05	06/06/23 15:23
60430286002	MW FAA-4-060623	Water	06/06/23 12:40	06/06/23 15:23
60430286003	MW FAA-5-060623	Water	06/06/23 09:45	06/06/23 15:23
60430286004	MW FAA-6-060623	Water	06/06/23 11:55	06/06/23 15:23
60430286005	DUP JEC FAA-060623	Water	06/06/23 11:05	06/06/23 15:23



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60430286001	MW FAA-3-060623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60430286002	MW FAA-4-060623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60430286003	MW FAA-5-060623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60430286004	MW FAA-6-060623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
60430286005	DUP JEC FAA-060623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: July 11, 2023

General Information:

5 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: July 11, 2023

General Information:

5 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: July 11, 2023

General Information:

5 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Sample: MW FAA-3-060623 PWS:	Lab ID: 60430 2 Site ID:	286001 Collected: 06/06/23 11:05 Sample Type:	Received:	06/06/23 15:23	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	ervices - Greensburg				
Radium-226	EPA 903.1	-0.0589 ± 0.383 (0.831) C:NA T:94%	pCi/L	06/30/23 12:20	13982-63-3	
	Pace Analytical S	ervices - Greensburg				
Radium-228	EPA 904.0	0.316 ± 0.341 (0.708) C:82% T:81%	pCi/L	06/23/23 11:54	15262-20-1	
	Pace Analytical S	ervices - Greensburg				
Total Radium	Total Radium Calculation	0.316 ± 0.724 (1.54)	pCi/L	06/30/23 14:22	2 7440-14-4	



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Sample: MW FAA-4-060623 PWS:	Lab ID: 604302 Site ID:	86002 Collected: 06/06/23 12:40 Sample Type:	Received:	06/06/23 15:23	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	ervices - Greensburg				
Radium-226	EPA 903.1	0.185 ± 0.321 (0.573) C:NA T:94%	pCi/L	06/30/23 12:20	13982-63-3	
	Pace Analytical Se	ervices - Greensburg				
Radium-228	EPA 904.0	0.889 ± 0.419 (0.695) C:81% T:82%	pCi/L	06/23/23 11:54	1 15262-20-1	
	Pace Analytical Se	ervices - Greensburg				
Total Radium	Total Radium Calculation	1.07 ± 0.740 (1.27)	pCi/L	06/30/23 14:22	2 7440-14-4	



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Sample: MW FAA-5-060623 PWS:	Lab ID: 604302 Site ID:	286003 Collected: 06/06/23 09:45 Sample Type:	Received:	06/06/23 15:23	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical S	ervices - Greensburg				
Radium-226	EPA 903.1	0.686 ± 0.434 (0.490) C:NA T:97%	pCi/L	06/30/23 12:20	0 13982-63-3	
	Pace Analytical S	ervices - Greensburg				
Radium-228	EPA 904.0	1.11 ± 0.479 (0.782) C:78% T:86%	pCi/L	06/23/23 11:54	1 15262-20-1	
	Pace Analytical S	ervices - Greensburg				
Total Radium	Total Radium Calculation	1.80 ± 0.913 (1.27)	pCi/L	06/30/23 14:22	2 7440-14-4	



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Sample: MW FAA-6-060623 PWS:	Lab ID: 604302 Site ID:	86004 Collected: 06/06/23 11:55 Sample Type:	Received:	06/06/23 15:23	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	ervices - Greensburg				
Radium-226	EPA 903.1	0.166 ± 0.391 (0.724) C:NA T:94%	pCi/L	06/30/23 12:20	13982-63-3	
	Pace Analytical Se	ervices - Greensburg				
Radium-228	EPA 904.0	1.20 ± 0.446 (0.643) C:81% T:87%	pCi/L	06/23/23 11:54	15262-20-1	
	Pace Analytical Se	ervices - Greensburg				
Total Radium	Total Radium Calculation	1.37 ± 0.837 (1.37)	pCi/L	06/30/23 14:22	2 7440-14-4	



Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Sample: DUP JEC FAA-060623 PWS:	Lab ID: 6043028 Site ID:	6005 Collected: 06/06/23 11:05 Sample Type:	Received:	06/06/23 15:23	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	vices - Greensburg				
Radium-226	EPA 903.1	-0.193 ± 0.334 (0.841) C:NA T:94%	pCi/L	06/30/23 12:20	13982-63-3	
	Pace Analytical Ser	vices - Greensburg				
Radium-228	EPA 904.0	0.668 ± 0.351 (0.600) C:78% T:88%	pCi/L	06/23/23 11:54	15262-20-1	
	Pace Analytical Ser	vices - Greensburg				
Total Radium	Total Radium Calculation	0.668 ± 0.685 (1.44)	pCi/L	06/30/23 14:22	2 7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

QC Batch: 594392 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60430286001, 60430286002, 60430286003, 60430286004, 60430286005

METHOD BLANK: 2888911 Matrix: Water

Associated Lab Samples: 60430286001, 60430286002, 60430286003, 60430286004, 60430286005

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.000 ± 0.212 (0.431) C:NA T:93%
 pCi/L
 06/30/23 12:20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

QC Batch: 594395 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60430286001, 60430286002, 60430286003, 60430286004, 60430286005

METHOD BLANK: 2888915 Matrix: Water

Associated Lab Samples: 60430286001, 60430286002, 60430286003, 60430286004, 60430286005

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.752 ± 0.391 (0.680) C:78% T:88%
 pCi/L
 06/23/23 11:53

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Date: 07/11/2023 04:08 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR RADCHEM

Pace Project No.: 60430286

Date: 07/11/2023 04:08 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60430286001	MW FAA-3-060623	EPA 903.1	594392		
60430286002	MW FAA-4-060623	EPA 903.1	594392		
60430286003	MW FAA-5-060623	EPA 903.1	594392		
60430286004	MW FAA-6-060623	EPA 903.1	594392		
60430286005	DUP JEC FAA-060623	EPA 903.1	594392		
60430286001	MW FAA-3-060623	EPA 904.0	594395		
60430286002	MW FAA-4-060623	EPA 904.0	594395		
60430286003	MW FAA-5-060623	EPA 904.0	594395		
60430286004	MW FAA-6-060623	EPA 904.0	594395		
60430286005	DUP JEC FAA-060623	EPA 904.0	594395		
60430286001	MW FAA-3-060623	Total Radium Calculation	598804		
60430286002	MW FAA-4-060623	Total Radium Calculation	598804		
60430286003	MW FAA-5-060623	Total Radium Calculation	598804		
60430286004	MW FAA-6-060623	Total Radium Calculation	598804		
60430286005	DUP JEC FAA-060623	Total Radium Calculation	598804		

Pace

DC#_Title: ENV-FRM-LENE-0009_Sample Co



ASS	NEWFICIAL SERVICES	Revision: 2	Effe	ctive Da	te: 01	1/12/2	022	100000	.g	ли		
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Custody Seal on Co	ooler/Box F	Present: Yes	No □	Seals	intact	: Yes/L	S N	o 🗆	\$)		_	
Packing Material:			ıbble Bags □		Fo	am 🗓	1	None □	Othe	₃ √4 Zy)((
Thermometer Used	: _10	199	Type of	Ice: W	et B	lue (No	ne)			Data	l initials of .	
Cooler Temperature	e (°C): A	s-read <u>22,7</u>	Corr. Facto	or <u> 40.</u>	2	Correc	ted _	576			l initials of p	66-06-50
Temperature should be	above freez	ing to 6°C										
Chain of Custody pre	esent:			Yes	□No	□N/A						
Chain of Custody rel	inquished:			Yes	□No	□n/a						
Samples arrived with	in holding t	ime:		Yes	□No	□n/a						
Short Hold Time an	alyses (<72	2hr):		□Yes	EN0	□n/a						
Rush Turn Around	Time reque	ested:		□Yes	ĮΖŃο	□n/a						
Sufficient volume:				Yes	□No	□n/a						
Correct containers us	sed:			Yes	□No	□n/a						
Pace containers use				/_	□No	□n/a						
Containers intact:	<u> </u>			☐Yes		□N/A						
	/ TV4005/4/	000 11- 5 1-	4010	-								
Unpreserved 5035A			1 48nrs?	□Yes		ZN/A						
Filtered volume recei	ved for diss	solved tests?		□Yes		□/N/A						
Sample labels match	COC: Date	e / time / ID / analy	/ses	Yes	□No	□N/A						
Samples contain mul	tiple phase:	s? Matrix:	WT	□Yes	No	□N/A						
Containers requiring				□Yes	□No	ZN/A		ample IDs, ime added		s, lot #'s	of preserva	tive and the
(HNO ₃ , H ₂ SO ₄ , HCl<2; I (Exceptions: VOA, Micl		•	nide) LOT# :									
Cyanide water sampl	le checks:											
Lead acetate strip tur Potassium iodide tes		• •	ean(a)	□Yes								
	t strip turns	blue/purple : (Fre	iserve)	□Yes								
Trip Blank present:				□Yes	□No	ZIN/A						
Headspace in VOA v	ials (>6mm	n):		□Yes	□No	N/A						
Samples from USDA	Regulated	Area: State		□Yes	□No	ØN/A						
Additional labels atta					□No	ZN/A						
Client Notification/ I	Resolution	:	Copy COC to		Υ	/ N	F	Field Data R	equired?	Υ /	N	
Person Contacted:			_ Date/T	ime:								
Comments/ Resolution	on:											
Project Manager Rev	iew:					Date	ə:					
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CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Section A	Submitting a sample via this ch	ain of custoo	dy co	nstitu	utes acki	nowledgr	nent and	acceptai	nce	of the	Pac tion	ce Te	rms	and	Con	ditio	ns fo	ound	at h	nttps	://info	o pac	elabs	con	n/hub	fs/pa	s-star	ndard	/. I-term	is pdf	É		
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	MATRIX Drinking W Water	CODE Vater DW WT	(see valid codes to left)	(C=COMP)		COLL	ECTED		NOITS				Pres	serv	ativ	es	ī	N/A	1	-	N								Ц	_			
	SAMPLE ID Waste Wa Product Spil/Solid Oil	ter WW P SL OL	see valid	(G=GRAB	ST	ART	E	ND	T COLLECTION	ςς.								Test		combined									П	e (X/N)	600	13 (3778
ITEM #	One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique Wipe Air Other Tissue	WP AR OT TS	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP AT	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCI	NaOH	Na2S203	Methanol	Sesyles	Doding 228/22	Kadium 225/228	QC Sheets									Residual Chlorine (Y/N)			
1	MW FAA-3-060623		wr	G	200	5	6/6/23	1105	1.	2			2	\top	1	T		T	T,	T	x	T	Т	П	T	T	T	T	Ħ	\top			
2	MW FAA-4-060623		wī	G	200		6/6/23			2			2	T	1	T		1	Г		x	T	T		T	T	T	\top	Ħ	ı			
3	MW FAA-5-060623		wī	G	(20)	G.		945	2	2			2		\top	1	1	1	Г	T	x	T	T			Ť		1	П	F			
4	MW FAA-6-060623			G				115.5	Ι.	2		Ħ	2	1	T	T		1	Г		x	T	T	П	Ħ	t	+	+	H	H			
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Page 18 of 23						ı		of SAMPI			wel	2	0	1	S	K	de	Ma	tt Va		ATE S		1: <i>C</i>	6	10	6/	ر انه'	3	TEMP in		Received of (Y/N)	Custody Sealed Cooler (Y/N)	Samples ntact (Y/N)

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te: SEC FAL CCR Radchemnotes

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COC Line Item		VG9H	DG9H	DG90	VG9U	DGBN	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	врзғ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
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Container Codes

		Glass			Plastic		Misc.
OG9B	40mL bisulfate clear vial	WGKU	8oz clear,soil jar	BP1C	1L NAOH plastic	1	Wipe/Swab
DG9H	40mL HCI amber voa vial	WGFU	4oz ciear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500ml HNO3 amber glass	BP27	500ml NaOH Zn Acetate		

500mL HNO3 amber glass 500mL NaOH, Zn Acetate Matrix BG1S 1liter H2SO4 clear glass AG2S BP3C 500mL H2SO4 amber glass 250mL NaOH plastic BG1U 1liter unpres glass AG3S 250mL H2SO4 amber glass BP3F 250mL HNO3 plastic - field filtered WT Water BG3H 250mL HCL Clear glass AG2U 500mL unpres amber glass BP3N 250mL HNO3 plastic SL Solid BG3U 250mL Unpres Clear glass AG3U 250mL unpres amber glass BP3U 250mL unpreserved plastic NAL Non-aqueous Liquid WGDU 16oz clear soil jar AG4U 125mL unpres amber glass BP3S OL 250mL H2SO4 plastic OIL AG5U BP3Z 100mL unpres amber glass 250mL NaOH, Zn Acetate WP Wipe BP4U 125mL unpreserved plastic DW Drinking Water

 BP4N
 125mL HNO3 plastic

 BP4S
 125mL H2SO4 plastic

 WPDU
 16oz unpresserved plstic

Work Order Number:

60470786

Client:	Evergy	Profile #	

te: SEC FAL CCR Radchemnotes

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COC Line Item		VG9H	DG9H	DG90	VG9U	DGBN	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	врзғ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
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Container Codes

		Glass			Plastic	Misc.		
OG9B	40mL bisulfate clear vial	WGKU	8oz clear,soil jar	BP1C	1L NAOH plastic	1	Wipe/Swab	
DG9H	40mL HCI amber voa vial	WGFU	4oz ciear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate	
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag	
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter	
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes	
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit	
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can	
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic			
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic			
VG9U	40mL unpreserved clear vial	AG2N	500ml HNO3 amber glass	BP27	500ml NaOH Zn Acetate			

500mL HNO3 amber glass 500mL NaOH, Zn Acetate Matrix BG1S 1liter H2SO4 clear glass AG2S BP3C 500mL H2SO4 amber glass 250mL NaOH plastic BG1U 1liter unpres glass AG3S 250mL H2SO4 amber glass BP3F 250mL HNO3 plastic - field filtered WT Water BG3H 250mL HCL Clear glass AG2U 500mL unpres amber glass BP3N 250mL HNO3 plastic SL Solid BG3U 250mL Unpres Clear glass AG3U 250mL unpres amber glass BP3U 250mL unpreserved plastic NAL Non-aqueous Liquid WGDU 16oz clear soil jar AG4U 125mL unpres amber glass BP3S OL 250mL H2SO4 plastic OIL AG5U BP3Z 100mL unpres amber glass 250mL NaOH, Zn Acetate WP Wipe BP4U 125mL unpreserved plastic DW Drinking Water

 BP4N
 125mL HNO3 plastic

 BP4S
 125mL H2SO4 plastic

 WPDU
 16oz unpresserved plstic

Work Order Number:

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Pace Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JJS1
Date:	6/20/2023
Worklist:	73780
Matrix:	WΤ

Method Blank Assessmen	t	
	MB Sample ID	2888915
1	MB concentration:	0.752
	M/B 2 Sigma CSU:	0.391
	MB MDC:	0.680
	MB Numerical Performance Indicator:	3.77
	MB Status vs Numerical Indicator:	Fail*
	MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Ŷ
· ·	LCS73780	LCSD73780
Count Date:	6/23/2023	6/23/2023
Spike I.D.:	23-040	23-040
Decay Corrected Spike Concentration (pCi/mL):	39.455	39.455
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.804
Target Conc. (pCi/L, g, F):	4.902	4.908
Uncertainty (Calculated):	0.240	0.241
Result (pCi/L, g, F):	4.791	3.914
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.066	0.910
Numerical Performance Indicator:	-0.20	-2.07
Percent Recovery:	97.74%	79.74%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

uplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:	LCS73780 LCSD73780 4.791 1.066 3.914 0.910 NO 1.228 20.29% Pass	Enter Duplicate sample IDs if other than LCS/LCSD in the space below

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS i.D.		1
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		,
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator: MS Status vs Recovery:		
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atrix Spike/Matrix Spike Duplicate Sample Assessment	
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Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	1
% RPD Limit:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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VAL 6/26/23

^{*}The method blank result is below the reporting limit for this analysis and is acceptable.



Quality Control Sample Performance Assessment

Test: Ra-226 Analyst: CLM

Date: 6/19/2023
Batch ID: 73778
Matrix: DW

Method Blank Assessment

MB Numerical Performance Indicator: 0.00

MB Status vs Numerical Indicator: N/A

MB Status vs. MDC: Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Ÿ
	LCS73778	LCSD73778
Count Date:	6/30/2023	6/30/2023
Spike I.D.:	23-013	23-013
Spike Concentration (pCi/mL):	32.285	32.285
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.653	0.654
Target Conc. (pCi/L, g, F):	4.946	4.937
Uncertainty (Calculated):	0.232	0.232
Result (pCi/L, g, F):	5.315	3.747
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.983	0.846
Numerical Performance Indicator:	0.72	-2.66
Percent Recovery:	107.46%	75.88%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:		133%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator:	0.983 3.747 0.846 NO	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD: % RPD Limit:	32%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MST Arget Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:	1	1
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:	1	
MSD Status vs Recovery:	1	
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Ī	Matrix Spike/Matrix Spike Duplicate Sample Assessment	
	Sample I.D. Sample MS I.D. Sample MSD I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
	Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD: % RPD Limit:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

Scc 4/30/23

RPD Numerical indicator 13 with -3-3 sigma for WT

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Phenolics, Radon, non-aqueous matrix All containers meet method preservation requirements: Survey Meter-scompleted Date/Time of Preservation		•		<u> </u>	ļ	16.				
All containers meet method preservation requirements: Survey Meter-Completed Date/Time of Preservation	'						DU	2/		
Rad Samples Screened <0.5 mrem/hr. Completed Preservation Lot# of added Preservative 17. 18. Trip Blank Present: Rad Samples Screened <0.5 mrem/hr. Completed Preservation Lot# of added Preservative 17. 18. Trip blank custody seal present? YES or NO Initial when Completed Survey Meteration Survey Meteration Survey Meteration Date: Survey Meteration Survey Meteration Survey Meteration Date: Survey Meteration Su	Phenolics, F	Radon, non-aqueous matrix					12	$\angle \alpha \angle$		
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624.1: Headspace in VOA Vials (0mm) Trip Blank Present: Trip blank custody seal present? YES or NO Initial when Date: Survey Meteromorpheted SN: 1563		1.101.11.1.2.2.3	T	T	T /		ative			
Trip Blank Present: Rad Samples Screened <0.5 mrem/hr. Trip blank custody seal present? YES or NO Initial when completed Date: Survey Meter-completed SN:	ł		ļ			<u> </u>				
Rad Samples Screened <0.5 mrem/hr. Initial when completed Date: 8 Survey Meter-scompleted SN: 5	624.1: Headspa	ice in VOA Vials (0mm)				l		4,		
completed () (0/8/69) SN: 1303	Trip Blank Prese	ent:		-	1	<u> </u>			present?	i e
Comments:	Rad Samples Sc	reened <0.5 mrem/hr.						Date://	8/23	SN: 1563
	Comments:							\$20°25		

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Pace Analytical"

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	JJS1
Date:	6/20/2023
Worklist:	73780
Matrix:	WΤ

Method Blank Assessmen	t	
	MB Sample ID	2888915
1	MB concentration:	0.752
	M/B 2 Sigma CSU:	0.391
	MB MDC:	0.680
	MB Numerical Performance Indicator:	3.77
	MB Status vs Numerical Indicator:	Fail*
	MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	LCSD (Y or N)?	Ŷ
· ·	LCS73780	LCSD73780
Count Date:	6/23/2023	6/23/2023
Spike I.D.:	23-040	23-040
Decay Corrected Spike Concentration (pCi/mL):	39.455	39.455
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.804
Target Conc. (pCi/L, g, F):	4.902	4.908
Uncertainty (Calculated):	0.240	0.241
Result (pCi/L, g, F):	4.791	3.914
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.066	0.910
Numerical Performance Indicator:	-0.20	-2.07
Percent Recovery:	97.74%	79.74%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

uplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD:	LCS73780 LCSD73780 4.791 1.066 3.914 0.910 NO 1.228 20.29% Pass	Enter Duplicate sample IDs if other than LCS/LCSD in the space below

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS i.D.		1
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		,
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator: MS Status vs Recovery:		
MSD Status vs Recovery: MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Opper % Recovery Limits: MS/MSD Lower % Recovery Limits:		
I MOMOD LOWER M (COOVER) ENTIRE.		1

atrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	1
% RPD Limit:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Page 22 of 2

VAL 6/26/23

^{*}The method blank result is below the reporting limit for this analysis and is acceptable.



Quality Control Sample Performance Assessment

Test: Ra-226 Analyst: CLM

Date: 6/19/2023
Batch ID: 73778
Matrix: DW

Method Blank Assessment

MB Numerical Performance Indicator: 0.00

MB Status vs Numerical Indicator: N/A

MB Status vs. MDC: Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Ÿ
	LCS73778	LCSD73778
Count Date:	6/30/2023	6/30/2023
Spike I.D.:	23-013	23-013
Spike Concentration (pCi/mL):	32.285	32.285
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.653	0.654
Target Conc. (pCi/L, g, F):	4.946	4.937
Uncertainty (Calculated):	0.232	0.232
Result (pCi/L, g, F):	5.315	3.747
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.983	0.846
Numerical Performance Indicator:	0.72	-2.66
Percent Recovery:	107.46%	75.88%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:		133%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator:	0.983 3.747 0.846 NO	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:		
Duplicate Status vs Numerical Indicator:		
Duplicate Status vs RPD: % RPD Limit:	32%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MST Arget Conc.(pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:	1	1
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:	1	
MSD Status vs Recovery:	1	
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Ī	Matrix Spike/Matrix Spike Duplicate Sample Assessment	
	Sample I.D. Sample MS I.D. Sample MSD I.D. Sample MSD I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
	Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD: % RPD Limit:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments:

Scc 4/30/23

RPD Numerical indicator 13 with -3-3 sigma for WT





June 16, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on June 06, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller

alice.spiller@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich







CERTIFICATIONS

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 88-00679 Illinois Certification #: 2000302023-5

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212023-1 Oklahoma Certification #: 2022-057 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-22-16 Utah Certification #: KS000212022-12

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60430287001	MW FAA-3-060623	Water	06/06/23 11:05	06/06/23 15:23
60430287002	MW FAA-4-060623	Water	06/06/23 12:40	06/06/23 15:23
60430287003	MW FAA-5-060623	Water	06/06/23 09:45	06/06/23 15:23
60430287004	MW FAA-6-060623	Water	06/06/23 11:55	06/06/23 15:23
60430287005	DUP JEC FAA-060623	Water	06/06/23 11:05	06/06/23 15:23



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60430287001	MW FAA-3-060623	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	CRN2	1	PASI-K
60430287002	MW FAA-4-060623	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	CRN2	1	PASI-K
0430287003	MW FAA-5-060623	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	CRN2	1	PASI-K
60430287004	MW FAA-6-060623	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	CRN2	1	PASI-K
60430287005	DUP JEC FAA-060623	EPA 200.7	MA1	4	PASI-K
		EPA 6010	MA1	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		EPA 300.0	CRN2	1	PASI-K

PASI-K = Pace Analytical Services - Kansas City



PROJECT NARRATIVE

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: June 16, 2023

General Information:

5 samples were analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: June 16, 2023

General Information:

5 samples were analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: June 16, 2023

General Information:

5 samples were analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Method: EPA 245.1 Description: 245.1 Mercury

Client: Evergy Kansas Central, Inc.

Date: June 16, 2023

General Information:

5 samples were analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: June 16, 2023

General Information:

5 samples were analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

Sample: MW FAA-3-060623	Lab ID: 6043	30287001	Collected: 06/06/2	23 11:05	Received: 06	5/06/23 15:23 N	fatrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua	
200.7 Metals, Total	Analytical Meth	od: EPA 20	00.7 Preparation Met	hod: EF	PA 200.7				
	Pace Analytica	l Services -	Kansas City						
Barium, Total Recoverable	0.035	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:11	7440-39-3		
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 13:11	7440-41-7		
Chromium, Total Recoverable	< 0.0050	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:11	7440-47-3		
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/12/23 11:48	06/13/23 13:11	7439-92-1		
6010 MET ICP	Analytical Meth	od: EPA 60	010 Preparation Met	nod: EP	A 3010				
	Pace Analytica	l Services -	Kansas City						
Lithium, Total Recoverable	0.017	mg/L	0.010	1	06/12/23 11:48	06/13/23 12:46	7439-93-2		
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytica	l Services -	Kansas City						
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:22	7440-36-0		
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:22	7440-38-2		
Cadmium, Total Recoverable	< 0.00050	mg/L	0.00050	1	06/12/23 11:48	06/13/23 11:22	7440-43-9		
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 15:00	7440-48-4		
Molybdenum, Total Recoverable	0.0057	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:22	7439-98-7		
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:22	7782-49-2		
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:22	7440-28-0		
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1				
•	Pace Analytica								
Mercury	<0.20	ug/L	0.20	1	06/12/23 14:34	06/13/23 12:45	7439-97-6		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
· · ·	Pace Analytica								
Fluoride	<0.20	mg/L	0.20	1		06/13/23 10:22			



Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

Sample: MW FAA-4-060623	Lab ID: 6043	30287002	Collected: 06/06/2	23 12:40	Received: 06	5/06/23 15:23 N	fatrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua	
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7				
	Pace Analytica	l Services -	Kansas City						
Barium, Total Recoverable	0.050	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:18	7440-39-3		
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 13:18	7440-41-7		
Chromium, Total Recoverable	< 0.0050	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:18	7440-47-3		
Lead, Total Recoverable	<0.010	mg/L	0.010	1	06/12/23 11:48	06/13/23 13:18	7439-92-1		
6010 MET ICP	Analytical Meth	od: EPA 60	10 Preparation Metl	nod: EP	A 3010				
	Pace Analytica	l Services -	Kansas City						
Lithium, Total Recoverable	0.021	mg/L	0.010	1	06/12/23 11:48	06/13/23 12:52	7439-93-2		
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytica	l Services -	Kansas City						
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:25	7440-36-0		
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:25	7440-38-2		
Cadmium, Total Recoverable	< 0.00050	mg/L	0.00050	1	06/12/23 11:48	06/13/23 11:25	7440-43-9		
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 15:02	7440-48-4		
Molybdenum, Total Recoverable	0.0071	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:25	7439-98-7		
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:25	7782-49-2		
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:25	7440-28-0		
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1				
•	Pace Analytica								
Mercury	0.30	ug/L	0.20	1	06/12/23 14:34	06/13/23 12:52	7439-97-6		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
	Pace Analytica								
Fluoride	<0.20	mg/L	0.20	1		06/13/23 11:01			



Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

Sample: MW FAA-5-060623	Lab ID: 6043	80287003	Collected: 06/06/2	3 09:45	Received: 06	5/06/23 15:23 N	fatrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Meth	od: EPA 200	0.7 Preparation Met	hod: EF	A 200.7			
	Pace Analytical	Services -	Kansas City					
Barium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:20	7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 13:20	7440-41-7	
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:20	7440-47-3	
ead, Total Recoverable	<0.010	mg/L	0.010	1	06/12/23 11:48	06/13/23 13:20	7439-92-1	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
	Pace Analytical	Services -	Kansas City					
Lithium, Total Recoverable	0.16	mg/L	0.010	1	06/12/23 11:48	06/13/23 12:54	7439-93-2	
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8							
	Pace Analytical	Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:28	7440-36-0	
Arsenic, Total Recoverable	0.0013	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:28	7440-38-2	
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/12/23 11:48	06/13/23 11:28	7440-43-9	
Cobalt, Total Recoverable	0.0031	mg/L	0.0010	1	06/12/23 11:48	06/13/23 15:04	7440-48-4	
Molybdenum, Total Recoverable	0.022	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:28	7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:28	7782-49-2	
hallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:28	7440-28-0	
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	A 245.1			
•	Pace Analytical		•					
Mercury	<0.20	ug/L	0.20	1	06/12/23 14:34	06/13/23 12:54	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
	Pace Analytical							
	,		•					



Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

Sample: MW FAA-6-060623	Lab ID: 60430287004		Collected: 06/06/2	3 11:55	Received: 06	latrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua	
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7				
	Pace Analytica	Services -	Kansas City						
Barium, Total Recoverable	0.021	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:22	7440-39-3		
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 13:22	7440-41-7		
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:22	7440-47-3		
ead, Total Recoverable	<0.010	mg/L	0.010	1	06/12/23 11:48	06/13/23 13:22	7439-92-1		
010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytica	Services -	Kansas City						
ithium, Total Recoverable	0.011	mg/L	0.010	1	06/12/23 11:48	06/13/23 12:56	7439-93-2		
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytica	Services -	Kansas City						
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:34	7440-36-0		
Arsenic, Total Recoverable	0.0099	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:34	7440-38-2		
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/12/23 11:48	06/13/23 11:34	7440-43-9		
Cobalt, Total Recoverable	0.0014	mg/L	0.0010	1	06/12/23 11:48	06/13/23 15:09	7440-48-4		
Nolybdenum, Total Recoverable	0.26	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:34	7439-98-7		
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:34	7782-49-2		
hallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:34	7440-28-0		
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1				
-	Pace Analytica	Services -	Kansas City						
Mercury	<0.20	ug/L	0.20	1	06/12/23 14:34	06/13/23 12:56	7439-97-6		
00.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
ŕ	Pace Analytica	Services -	Kansas City						
	<0.20		0.20						



Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

Sample: DUP JEC FAA-060623	Lab ID: 6043	30287005	Collected: 06/06/2	3 11:05	Received: 06	5/06/23 15:23 N	latrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua	
200.7 Metals, Total	Analytical Meth	od: EPA 20	0.7 Preparation Met	hod: EF	PA 200.7				
	Pace Analytical	Services -	Kansas City						
Barium, Total Recoverable	0.031	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:24	7440-39-3		
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 13:24	7440-41-7		
Chromium, Total Recoverable	<0.0050	mg/L	0.0050	1	06/12/23 11:48	06/13/23 13:24	7440-47-3		
ead, Total Recoverable	<0.010	mg/L	0.010	1	06/12/23 11:48	06/13/23 13:24	7439-92-1		
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Pace Analytical	Services -	Kansas City						
Lithium, Total Recoverable	0.018	mg/L	0.010	1	06/12/23 11:48	06/13/23 12:59	7439-93-2		
200.8 MET ICPMS	Analytical Method: EPA 200.8 Preparation Method: EPA 200.8								
	Pace Analytical	Services -	Kansas City						
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:37	7440-36-0		
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:37	7440-38-2		
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	06/12/23 11:48	06/13/23 11:37	7440-43-9		
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 15:11	7440-48-4		
Molybdenum, Total Recoverable	0.0056	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:37	7439-98-7		
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:37	7782-49-2		
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	06/12/23 11:48	06/13/23 11:37	7440-28-0		
245.1 Mercury	Analytical Meth	od: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1				
-	Pace Analytical	Services -	Kansas City						
Mercury	<0.20	ug/L	0.20	1	06/12/23 14:34	06/13/23 12:59	7439-97-6		
800.0 IC Anions 28 Days	Analytical Meth	od: EPA 30	0.0						
·	Pace Analytical	Services -	Kansas City						
Fluoride	<0.20	mg/L	0.20	1		06/13/23 11:41	40004 40 0		



QUALITY CONTROL DATA

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

QC Batch: 851869 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

METHOD BLANK: 3373974 Matrix: Water

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Mercury ug/L <0.20 0.20 06/13/23 12:40

LABORATORY CONTROL SAMPLE: 3373975

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Mercury 4.9 99 85-115 ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3373976 3373977

MS MSD

60430287002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec **RPD** RPD Result Conc. % Rec Limits Qual 5 4.2 20 Mercury ug/L 0.30 5 4.2 78 78 70-130

MATRIX SPIKE SAMPLE: 3373978

Date: 06/16/2023 12:32 PM

60430235004 MS MS % Rec Spike Qualifiers Parameter Units Result Conc. Result % Rec Limits < 0.20 5 4.3 85 70-130 Mercury ug/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

QC Batch: 851810

Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

METHOD BLANK: 3373805 Matrix: Water

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	06/13/23 13:07	
Beryllium	mg/L	< 0.0010	0.0010	06/13/23 13:07	
Chromium	mg/L	< 0.0050	0.0050	06/13/23 13:07	
Lead	mg/L	< 0.010	0.010	06/13/23 13:07	

LABORATORY CONTROL SAMPLE:	3373806					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L	1	0.98	98	85-115	
Beryllium	mg/L	1	0.99	99	85-115	
Chromium	mg/L	1	0.95	95	85-115	
Lead	mg/L	1	1.0	100	85-115	

MATRIX SPIKE & MATRIX SP	IKE DUPLI	CATE: 3373	807	3373808								
			MS	MSD								
	6	60430287001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.035	1	1	1.0	1.0	101	100	70-130	1	20	
Beryllium	mg/L	< 0.0010	1	1	1.0	0.98	102	98	70-130	4	20	
Chromium	mg/L	< 0.0050	1	1	0.98	0.94	98	94	70-130	3	20	
Lead	mg/L	<0.010	1	1	0.99	0.96	99	96	70-130	3	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

QC Batch: 851812 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

METHOD BLANK: 3373809 Matrix: Water

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	06/13/23 11:18	
Arsenic	mg/L	< 0.0010	0.0010	06/13/23 11:18	
Cadmium	mg/L	< 0.00050	0.00050	06/13/23 11:18	
Cobalt	mg/L	< 0.0010	0.0010	06/13/23 14:57	
Molybdenum	mg/L	< 0.0010	0.0010	06/13/23 11:18	
Selenium	mg/L	< 0.0010	0.0010	06/13/23 11:18	
Thallium	mg/L	< 0.0010	0.0010	06/13/23 11:18	

LABORATORY CONTROL SAMPLE:	3373810

Date: 06/16/2023 12:32 PM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.04	0.038	96	85-115	
Arsenic	mg/L	0.04	0.039	97	85-115	
Cadmium	mg/L	0.04	0.039	98	85-115	
Cobalt	mg/L	0.04	0.041	101	85-115	
Molybdenum	mg/L	0.04	0.039	99	85-115	
Selenium	mg/L	0.04	0.039	96	85-115	
Thallium	mg/L	0.04	0.039	97	85-115	

MATRIX SPIKE & MATRIX	SPIKE DUPL	ICATE: 3373	811 MS	MSD	3373812							
Parameter	Units	60430287005 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	 	0.04	0.04	0.036	0.039	89	98	70-130	10	20	- Quai
Arsenic	mg/L	<0.0010	0.04	0.04	0.038	0.033	94	103	70-130	9	_	
Cadmium	mg/L	< 0.00050	0.04	0.04	0.034	0.038	86	94	70-130	9	20	
Cobalt	mg/L	< 0.0010	0.04	0.04	0.040	0.045	100	111	70-130	11	20	
Molybdenum	mg/L	0.0056	0.04	0.04	0.044	0.049	97	108	70-130	10	20	
Selenium	mg/L	< 0.0010	0.04	0.04	0.036	0.039	89	98	70-130	10	20	
Thallium	mg/L	< 0.0010	0.04	0.04	0.038	0.043	96	106	70-130	10	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

QC Batch: 851814 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

METHOD BLANK: 3373814 Matrix: Water

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 06/13/23 12:41

LABORATORY CONTROL SAMPLE: 3373815

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units mg/L Lithium 0.98 98 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3373816 3373817

MS

60430287001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Conc. Limits 0.017 104 Lithium mg/L 1.1 1.1 105 75-125 20

MSD

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

QC Batch: 851544 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

METHOD BLANK: 3372729 Matrix: Water

Associated Lab Samples: 60430287001, 60430287002, 60430287003, 60430287004, 60430287005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Fluoride mg/L <0.20 0.20 06/13/23 09:55

LABORATORY CONTROL SAMPLE: 3372730

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Fluoride 2.5 2.4 96 90-110 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3372731 3372732

MS MSD

60430287001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits Fluoride mg/L < 0.20 2.5 2.5 2.8 2.6 107 103 80-120 15

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

Date: 06/16/2023 12:32 PM



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR (APP IV)

Pace Project No.: 60430287

Date: 06/16/2023 12:32 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60430287001	MW FAA-3-060623	EPA 200.7	851810	EPA 200.7	851852
60430287002	MW FAA-4-060623	EPA 200.7	851810	EPA 200.7	851852
60430287003	MW FAA-5-060623	EPA 200.7	851810	EPA 200.7	851852
60430287004	MW FAA-6-060623	EPA 200.7	851810	EPA 200.7	851852
60430287005	DUP JEC FAA-060623	EPA 200.7	851810	EPA 200.7	851852
60430287001	MW FAA-3-060623	EPA 3010	851814	EPA 6010	851853
60430287002	MW FAA-4-060623	EPA 3010	851814	EPA 6010	851853
60430287003	MW FAA-5-060623	EPA 3010	851814	EPA 6010	851853
60430287004	MW FAA-6-060623	EPA 3010	851814	EPA 6010	851853
60430287005	DUP JEC FAA-060623	EPA 3010	851814	EPA 6010	851853
60430287001	MW FAA-3-060623	EPA 200.8	851812	EPA 200.8	851851
60430287002	MW FAA-4-060623	EPA 200.8	851812	EPA 200.8	851851
60430287003	MW FAA-5-060623	EPA 200.8	851812	EPA 200.8	851851
60430287004	MW FAA-6-060623	EPA 200.8	851812	EPA 200.8	851851
60430287005	DUP JEC FAA-060623	EPA 200.8	851812	EPA 200.8	851851
60430287001	MW FAA-3-060623	EPA 245.1	851869	EPA 245.1	852023
60430287002	MW FAA-4-060623	EPA 245.1	851869	EPA 245.1	852023
60430287003	MW FAA-5-060623	EPA 245.1	851869	EPA 245.1	852023
60430287004	MW FAA-6-060623	EPA 245.1	851869	EPA 245.1	852023
60430287005	DUP JEC FAA-060623	EPA 245.1	851869	EPA 245.1	852023
60430287001	MW FAA-3-060623	EPA 300.0	851544		
60430287002	MW FAA-4-060623	EPA 300.0	851544		
60430287003	MW FAA-5-060623	EPA 300.0	851544		
60430287004	MW FAA-6-060623	EPA 300.0	851544		
60430287005	DUP JEC FAA-060623	EPA 300.0	851544		

WO#: 60430287



Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-LENE-0009_Sam

Revision: 2	Effective Date: 01/12/2022	issued by: Lenexa

Client Name: Evergy				
Courier: FedEx UPS VIA Clay F	PEX 🗆	E	CI 🗆	Pace □ Xroads □ Client 🌠 Other □
Tracking #: Pace	e Shippi	ing La	abel Use	ed? Yes 🗗 No □
Custody Seal on Cooler/Box Present: Yes 🕅 No □	Seals	intac	t: Yes l	□ No 🗹
Packing Material: Bubble Wrap M Bubble Bags)	F	oam 🗆	None □ Other □
Thermometer Used: Type of	Ice: 🕅	et B	Blue No	
Cooler Temperature (°C): As-read 3. 2 Corr. Factor	or 10.	2	Correc	eted 3.4 Date and initials of person examining contents:
Temperature should be above freezing to 6°C				at 6/6
Chain of Custody present:	Yes	□No	□N/A	
Chain of Custody relinquished:	Yes	□No	□N/A	
Samples arrived within holding time:	ĭZYes	□No	□n/a	
Short Hold Time analyses (<72hr):	□Yes	1 0000	□N/A	
Rush Turn Around Time requested:	□Yes	DONO.	□n/a	
Sufficient volume:	⊈ Yes	□No	□n/a	
Correct containers used:	Yes	□No	□n/a	
Pace containers used:	Yes	□No	□N/A	
Containers intact:	D∰Yes	□No	□n/a	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes	□No	⊠ N/A	
Filtered volume received for dissolved tests?	□Yes	□No	⊠ N/A	
Sample labels match COC: Date / time / ID / analyses	Sees.	□No	□N/A	
Samples contain multiple phases? Matrix:	□Yes	⊳ M°o	□n/a	
Containers requiring pH preservation in compliance?	Yes	□No	□N/A	List sample IDs, volumes, lot #'s of preservative and the date/time added.
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#:	671	87		dato in to daded.
Cyanide water sample checks:	0			
Lead acetate strip turns dark? (Record only)	□Yes	□No		
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes	□No		
Trip Blank present:	□Yes	□No	[Sph/A	
Headspace in VOA vials (>6mm):	□Yes	□No	D ∕P N/A	
Samples from USDA Regulated Area: State:	□Yes	□No	₩ N/A	
Additional labels attached to 5035A / TX1005 vials in the field?	□Yes	□No	DN/A	e:
Client Notification/ Resolution: Copy COC to C	Client?	Y	/ N	Field Data Required? Y / N
Person Contacted: Date/Tir	ne:			
Comments/ Resolution:				
Project Manager Review:			Date):



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section	A	0								_		_																_				
Require	d Client Information:	Section B Required Pr		Inform	nation:						ction (oice Info		tion:															P	age:	1	of	1
Compan	EVERGY KANSAS CENTRAL, INC.	Report To:	Jake	Hum	phrey					Atte	ention:	-	Acco	unts	-							٦						_				
Address	400 E Van Buren St	Copy To: [aura	Hin	es, Sam	antha K	aney, Meli	issa Mich	els	Con	mpany N	Name	: E	VER	GY	KAN	ISA:	s c	ENT	RAI	L, IN	Id _{RI}	EGUI	LATO	RY	AGE	ENC	Υ				
	Suite 545, Phoenix, AZ 85004									Address										_	OUND WATER DRINKING WATER											
Email To	skaney@haleyaldrich.com	Purchase Or	der N	0,,						Pace Quote										RCRA OTHER												
Phone:	507-251-2232 Fax:	Project Name	e: ,	JEC I	FAL CCI	R (App I	V)			Pace	erence: e Project	1 /	Alice	Spil	ler 9	913-	563-	-140	03			+		ocatio	_	-	.010	`			WWW.	
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	Section D Valid Matrix C Required Client Information MATRIX	Codes CODE	left)	(P)		COLL	ECTED.		Г	Τ	T						+	Ž			Т	\neg	Ħ	SFIR	ere	3 (Y/	(N)	Т				
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	PRODUCT SOIL/SOLID	WT WW P SL		(G=GRAB C	COMPO		COMPO END/GI	SITE RAB	COLLECTION								ı		*										(X/N			
	SAMPLE ID OIL WIPE AIR	LE ID WIPE WP 5 19								l S					$ \ $		7	est	200.7 Total Metals*				П						<u>ē</u>			
	(A-Z, 0-9 / ,-) OTHER Sample IDs MUST BE UNIQUE TISSUE	AR OT TS	ᇕᅵ	JYPE					AP AT	CONTAINERS					Ш		15		ž š	<u> </u>		Fluoride	П						Chlorine			
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ITEM #			MATRIX CODE	SAMPLE					SAMPLE	E	Unpreserved	S S	ے 2	NaOH	Na ₂ S ₂ O ₃	Methanol	<u> </u>	ख । ।		5010 Total		300.0 F	Н						Residual			
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Page 23 of 24							SIGNATUR	F of SAMP	I FP	///	ll van	iueri	-utte	11/		1	0	1	DAT	E Sig	gned	^	- 1	6.	<u>/ </u>	2		1	o dwe	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
SIGNATURE of SAMPLER: Whath Vary DATE Signed (MM/DD/YY):								U	010	16	d	5		1_		L.	ű] ഗ്														

Client:	Evergy	Profile #	9657 line 6	
Site:	JEC FAL CCR (APP IV)	Notes		

COC Line Item	Matrix	VG9H	DG9H	D690	VG9U	Deso	DG9M	DG9B	BG1U	АG1Н	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	вьзп	BP1N	BP3N	ВРЗГ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
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Container Codes

		Glass		13	Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic		Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
OG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
OG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
OG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
/G9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		33
/G9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
/COLL	40ml upproposed close vial	ACON	FOOm! UNO2 ambas alass	DDDZ	500 - I N OU 7 A 11		

40mL unpreserved clear vial 500mL HNO3 amber glass VG9U AG2N BP2Z 500mL NaOH, Zn Acetate Matrix BG1S 1liter H2SO4 clear glass AG2S 500mL H2SO4 amber glass BP3C 250mL NaOH plastic BG1U 1liter unpres glass AG3S 250mL H2SO4 amber glass BP3F 250mL HNO3 plastic - field filtered WT Water BG3H 250mL HCL Clear glass AG2U 500mL unpres amber glass BP3N 250mL HNO3 plastic SL Solid BG3U 250mL Unpres Clear glass AG3U 250mL unpres amber glass BP3U 250mL unpreserved plastic NAL Non-aqueous Liquid WGDU 16oz clear soil jar AG4U 125mL unpres amber glass BP3S 250mL H2SO4 plastic OL OIL AG5U 100mL unpres amber glass BP3Z WP 250mL NaOH, Zn Acetate Wipe BP4U 125mL unpreserved plastic DW Drinking Water BP4N 125mL HNO3 plastic

BP4S

WPDU

125mL H2SO4 plastic

16oz unpresserved plstic

Work Order Number:

Leay 30287

ATTACHMENT 2-3 September 2023 Semi-Annual Sampling Event Laboratory Analytical Report

Pace Analytical Services, LLC 9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



October 06, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: MW-FAA-5

Pace Project No.: 60437014

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller alice.spiller@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Melanie Satanek, Haley Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich



9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: MW-FAA-5 Pace Project No.: 60437014

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417 ANABISO/IEC 17025:2017 Rad Cert#: L24170

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 2950 Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA010 Louisiana DEQ/TNI Certification #: 04086

Maine Certification #: 2023021 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-015 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN02867

Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad



SAMPLE SUMMARY

Project: MW-FAA-5 Pace Project No.: 60437014

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60437014001	FAA-5-090623	Water	09/06/23 09:50	09/07/23 16:30



SAMPLE ANALYTE COUNT

Project: MW-FAA-5 Pace Project No.: 60437014

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60437014001	FAA-5-090623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60437014

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: October 06, 2023

General Information:

1 sample was analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60437014

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: October 06, 2023

General Information:

1 sample was analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60437014

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: October 06, 2023

General Information:

1 sample was analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: MW-FAA-5 Pace Project No.: 60437014

Sample: FAA-5-090623 PWS:	Lab ID: 6043 Site ID:	7014001 Collected: 09/06/23 09:50 Sample Type:	Received:	09/07/23 16:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg		-		
Radium-226	EPA 903.1	1.08 ± 0.703 (0.721) C:NA T:91%	pCi/L	09/22/23 14:30	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.209 ± 0.390 (0.854) C:87% T:86%	pCi/L	09/26/23 15:50	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.29 ± 1.09 (1.58)	pCi/L	09/27/23 15:14	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: MW-FAA-5 Pace Project No.: 60437014

QC Batch: 615736 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60437014001

METHOD BLANK: 2998672 Matrix: Water

Associated Lab Samples: 60437014001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.136 ± 0.326 (0.630) C:NA T:100%
 pCi/L
 09/22/23 14:30

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL - RADIOCHEMISTRY

Project: MW-FAA-5 Pace Project No.: 60437014

QC Batch: 615737 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60437014001

METHOD BLANK: 2998673 Matrix: Water

Associated Lab Samples: 60437014001

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.390 ± 0.254 (0.451) C:82% T:87%
 pCi/L
 09/26/23 15:52

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: MW-FAA-5 Pace Project No.: 60437014

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Date: 10/06/2023 05:00 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5 Pace Project No.: 60437014

Date: 10/06/2023 05:00 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60437014001	FAA-5-090623	EPA 903.1	615736		
60437014001	FAA-5-090623	EPA 904.0	615737		
60437014001	FAA-5-090623	Total Radium Calculation	618468		

WO#:60437014



Pace AMALVIICAL SERVICES

DC#_Title: ENV-FRM-LENE-0009_Sample

Revision: 2 Effe	ective Date: 01/12/202	2 Issued By: Lenexa
Client Name: Every Kunsas Ce	n trail	
Courier: FedEx UPS VIA Clay	PEX 🗆 ECI 🗆 P	Pace □ Xroads □ Client 🗗 Other □
Tracking #: Pac	ce Shipping Label Used?	Yes □ No 🖢
Custody Seal on Cooler/Box Present: Yes No 🗆	Seals intact: Yes	No □
Packing Material: Bubble Wrap □ Bubble Bags	□ Foam □	None D Other □
Thermometer Used: 12/18 Type o	fice: Wet Blue None	
Cooler Temperature (°C): As-read 25/5 Corr. Fac	tor <u>-0.3</u> Corrected	Date and initials of person examining contents:
Temperature should be above freezing to 6°C	1002	AF 9/7
Chain of Custody present:	des Ono On/A	· · · · · · · · · · · · · · · · · · ·
Chain of Custody relinquished:	ŮYes □No □N/A	
Samples arrived within holding time:	ØYes □No □N/A	
Short Hold Time analyses (<72hr):	□Yes ੴNo □N/A	
Rush Turn Around Time requested:	□Yes t No □N/A	
Sufficient volume:	¥Yes □No □N/A	
Correct containers used:	tres □No □N/A □	
Pace containers used:	Yes □No □N/A	
Containers intact:	Yes □No □N/A	
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No ŪN/Ā	
Filtered volume received for dissolved tests?	□Yes □No Ŀ N/A	
Sample labels match COC: Date / time / ID / analyses	Dres ONO ON/A	
Samples contain multiple phases? Matrix:WT	□Yes □Mo □N/A	
Containers requiring pH preservation in compliance?		ist sample IDs, volumes, lot #'s of preservative and the ate/time added.
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO) LOT#	17 retters!	ate/lime added.
Cyanide water sample checks:		
Lead acetate strip turns dark? (Record only)	□Yes □No	
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No	
Trip Blank present:	□Yes □No 1□MA	
Headspace in VOA vials (>6mm):	□Yes □No ŒN/A	
Samples from USDA Regulated Area: State:	□Yes □No ┗N/A	
Additional labels attached to 5035A / TX1005 vials in the field	? DYes DNo MINIA	
Client Notification/ Resolution: Copy COC t	o Client? Y / N	Field Data Required? Y / N
Person Contacted: Date/	Time:	<u></u>
Comments/ Resolution:		
Project Manager Review:	Date:	



CHAIN-OF-CUSTODY / Analytical Request Document

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

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at https://info.pacelabs.com/hubfs/pas-standard-terms.pdf. Section A Section B Section C Required Client Information: Required Project Information: Invoice Information: Page: Of Company: Evergy Kansas Central, Inc. Report To: Samantha Kaney, Danielle Oberbroeckling Attention: Accounts Payable Address: 400 E Van Buren St Copy To: Melissa Michaels, Laura Hines, Jake Humphrey Company Name: Evergy Kansas Central, Inc. Suite 545, Phoenix, AZ 85004 Address: See Section A Regulatory Agency skaney@haleyaldrich.com Purchase Order #: Pace Quote: Groundwater Project Name: (602)760-2441 Fax: MW-FAA-5 Pace Project Manager: alice spiller@pacelabs.com State / Location Requested Due Date: Project #: Pace Profile #: KS Requested Analysis Filtered (Y/N) (V/V) (V/V) (V/V) (V/V) C=COMP) COLLECTED Preservatives MATRIX CODE Drinking Water DW Radium 226/228 Combined Water (G=GRAB Waste Water ww Product **SAMPLE ID** Soil/Solid SL (see START END OĻ # OF CONTAINERS Oil WP AR OT Analyses One Character per box. Wipe MATRIX CODE SAMPLE TYPE Air (A-Z, 0-9/, -) Radium 226 Other 2C Sheets Sample lds must be unique Tissue Radium Ξ HN03 NaOH Other 모 TIME DATE TIME FAA-5-090623 WT 9:50 9/6/23 2 3 6 8 9 10 11 12 **RELINQUISHED BY / AFFILIATION** DATE ACCEPTED BY / AFFILIATION DATE SAMPLE CONDITIONS ADDITIONAL COMMENTS TIME 9/)/23 Jason R. Franks / SCS 9/7/2023 16:00 SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: Jason R. Franks 으 SIGNATURE of SAMPLER! DATE Signed: 9/7/2023

	1	1	1 1 1
	- merra	KNINGAG	100 ton/
Client:	Every	11011709	1 ENITE

Profile #

Site: MW-FAA-5

Notes

COC Line Item		NG9H	резн	DG9Q	NG9N	nesa	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	BP3F	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
1	WT																					2	64								
2																															
3																															
4																															
5																															
6																															
7																															
8																															
9																															
10																															
11																															
12																															

Container Codes

		Glass			Plastic		Misc.
OG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	11	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
OG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
OG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
OG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
OG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
/G9H	40mL HCI clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
/G9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
/G9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		Matrix
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		Matrix
3G1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
3G3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
NGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
			* - * *	BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		•
				BP4S	125mL H2SO4 plastic		

WPDU

16oz unpresserved plstic

Work Order Number:

60437014

Internal Transfer Ch	nain of Custoc	dy 			
	Sample	es Pre-Logged into eCOC.	State Of Origin: KS Cert. Needed: Yes	Pace	9
	korder Name: MW-FA		Owner Received Date:	9/7/2023 Results Requested By: 10/6/20)23
Report To	Subcontra	ct To		Requested Analysis	nedaya:
Alice Spiller Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	Sample Collect	-NO3	Sadium 228 and combined		
Item Sample ID	Type Date/Time	Lab ID Matrix		LAB USE C	
2 FAA-5-090623	PS 9/6/2023 09:50	60437014001 Water 2	X X X		1
3					
4					
5					
	<u> </u>			Comments	Megerini
Transfers Released By	Date/Time	Received By	Date/Time		
1 UZist /Fn	v 9.11.23	1700 km/hr	6/01231000		
2					
3					
Cooler Temperature on Receipt	t ~ ℃ Cus	stody Seal Y or N\	Received on Ice Y or	r (N) Samples 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.



DC#_Title: El	NV-FRM-GBU	800-5	8 v0					
Book				A	U#	: 3062	USP	1
Effective Date: (07/06/2023			PM	: MAR	Due	e Date:	10/03/23
Client Name: Pace-KS				CL_	IENT:	PACE_60_LI	EKS	
Courier: A Fed Ex A UPS A USPS	:∏Client∏Com	merci:	al 🗆 P	ace ∏ Other			maa / vu	•
Tracking Number:	124	''' q	371)		Examined By:	WAQ	13 T
Tracking Number:			-/- 	Land I		•		70
Custody Seal on Cooler/Box Press Thermometer Used:	ent: 🗌 Yes 🖄 N Type of Ic		√et Bl	ne 440us)	es 🖺 No	Temped By:	Legender	
Cooler Temperature: Observed	Temp	۰C	Corre	ctionFactor: 🛰	hammarine,	_•C Final Ten	np:	<u>~_</u> °C
Temp should be above freezing to 6°C						Lana a	-1.651	1-44
		T	T	pH paper Lot	1	D.P.D. Residu	iai Uniorini	10t#
Comments:	Yes	No	NA	10(020	/ \			
Chain of Custody Present	<u>\</u>	ļ <u> </u>	 	1.				
Chain of Custody Filled Out:	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	X	 	2.				
-Were client corrections prese	ent on COC	4	<u> </u>	3.			<u></u>	
Chain of Custody Relinquished		X		4.				
Sampler Name & Signature on CO	_; <u>x</u>	\ <u>\\\</u>		5.				
Sample Labels match COC: -Includes date/time/ID		İ		J				
Matrix:	WT							
		T	Τ	6.				
<u>Samples Arrived within Hold Time</u> Short Hold Time Analysis (<72hr				7.				
remaining):		X		<i>'</i>				
Rush Turn Around Time Requeste	d:	X		8.				
Sufficient Volume:				9,				
Correct Containers Used:	, X			10.				
-Pace Containers Used	又							
Containers Intact:				11.				
Orthophosphate field filtered:			X	12.				
Hex Cr Aqueous samples field filte			X	13.				
Organic Samples checked for dech	lorination			14:				
Filtered volume received for dissol			X	15:				
All containers checked for preserv	ration: X			16.				
exceptions: VOA, coliform, TO Phenolics, Radon, non-aqueou				pH2				
All containers meet method prese	rvation X			Initiat when		Date/Time of		İ
requirements:				completed Lot# of added Preservative		Preservation		
3260C/D: Headspace in VOA Vials	> 6mm)		Х	17.				
524.1: Headspace in VOA Vials (On	nm)		义	18.				
Trip Blank Present:			又	Trip blank	custody	seal present?		
Rad Samples Screened <0.5 mrem	/hr.			Initial when completed) Date	<i>4 12 3</i> 3	Survey Meter SN: 156	3
	_							

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LiMS through the SRF Review schedule in the Workorder Edit Screen.

Face Analytical www.pacelates.com

Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: CLM
Date: 9/15/2023
Batch ID: 75321
Matrix: DW

 Method Blank Assessment
 MB Sample ID
 2998672

 MB concentration:
 0.136

 M/B Counting Uncertainty:
 0.326

 MB MDC:
 0.630

 MB Numerical Performance Indicator:
 0.82

 MB Status vs Numerical Indicator:
 N/A

 MB Status vs. MDC:
 Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75321	LCSD75321
Count Date:	9/22/2023	9/22/2023
Spike I.D.:	23-013	23-013
Spike Concentration (pCi/mL):	32.282	32.282
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.651	0.651
Target Conc. (pCi/L, g, F):	4.957	4.962
Uncertainty (Calculated):	0.233	0.233
Result (pCi/L, g, F):	5.487	5.775
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.233	1.312
Numerical Performance Indicator:	0.83	1.20
Percent Recovery:	110.69%	116.40%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	133%	133%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		1
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Are sample and/or duplicate results below RL?	5.487 1.233 5.775 1.312	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator:		
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.03%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	[

Analyst Must Manually Enter All Fields Highlighted in Yellow.

ample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2	
Sample Collection Date:		1.5	
Sample I.D.			
Sample MS I.D.			
Sample MSD I.D.			
Spike I.D.:			
MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
Spike Volume Used in MS (mL):			
Spike Volume Used in MSD (mL):		i	
MS Aliquot (L, g, F):			
MS Target Conc.(pCi/L, g, F):			
MSD Aliquot (L, g, F):			
MSD Target Conc. (pCi/L, g, F):			
MS Spike Uncertainty (calculated):			
MSD Spike Uncertainty (calculated):			
Sample Result:			
Sample Result Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Result:			
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):			
Sample Matrix Spike Duplicate Result:			
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):			
MS Numerical Performance Indicator:			
MSD Numerical Performance Indicator:			
MS Percent Recovery:			
MSD Percent Recovery:		1	
MS Status vs Numerical Indicator:			
MSD Status vs Numerical Indicator:			
MS Status vs Recovery:			
MSD Status vs Recovery:			
MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:			
IVIS/IVISD LOWER 76 RECOVERY LITTLES.		E .	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D. Sample MSI I.D. Sample MSD I.D. Sample MSD I.D. Sample MSD I.D. Sample MSD I.D. Sample Matrix Spike Result Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments

Challs

Ra-226 NELAC QC Printed: 9/22/2023 16:02

5 of 16

Quality Control Sample Performance Assessment

Ra-228 Test: Analyst: VAL 9/19/2023 Date: 75322 WT Worklist:

Matrix:

Method Blank Assessment MB Sample ID 2998673 MB concentration: 0.390 M/B 2 Sigma CSU: 0.254 MB MDC: 0.451 3.01 MB Numerical Performance Indicator: Fail* MB Status vs Numerical Indicator: MB Status vs. MDC: Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS75322	LCSD75322
Count Date:	9/26/2023	9/26/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.668	39.668
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.815	0.817
Target Conc. (pCi/L, g, F):	4.865	4.856
Uncertainty (Calculated):	0.238	0.238
Result (pCi/L, g, F):	4.398	3.640
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.975	0.836
Numerical Performance Indicator:	-0.91	-2.74
Percent Recovery:	90.40%	74.96%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RL?	0.975 3.640 0.836 NO	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	1.157 18.67%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:		
% RPD Limit:	36%	

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		1
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery: MS/MSD Upper % Recovery Limits:		
MS/MSD Copper % Recovery Limits: MS/MSD Lower % Recovery Limits:		
IVIS/IVISD LOWER 76 RECOVERY LITTRIS.	L	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS I.D.	
Sample MSD i.D.	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

VAL 9/27/23 10f1

van 9/27/23

Pace Analytical Services, LLC 9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



October 06, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR

Pace Project No.: 60437015

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller alice.spiller@pacelabs.com

(913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Melanie Satanek, Haley Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich



9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: JEC FAL CCR
Pace Project No.: 60437015

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417 ANABISO/IEC 17025:2017 Rad Cert#: L24170

Alabama Certification #: 41590 Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 2950 Colorado Certification #: PA01547 Connecticut Certification #: PH-0694

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683 Georgia Certification #: C040

Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA010 Louisiana DEQ/TNI Certification #: 04086

Maine Certification #: 2023021 Maryland Certification #: 308

Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification #: 9991 Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002-015 Pennsylvania/TNI Certification #: 65-00282 Puerto Rico Certification #: PA01457 Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN02867

Ohio EPA Rad Approval: #41249

Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad



SAMPLE SUMMARY

Project: JEC FAL CCR
Pace Project No.: 60437015

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60437015001	FAA-3-090623	Water	09/06/23 14:10	09/07/23 16:30
60437015002	FAA-4-090623	Water	09/06/23 15:15	09/07/23 16:30
60437015003	FAA-6-090623	Water	09/06/23 13:25	09/07/23 16:30
60437015004	DUP-FAA-090623	Water	09/06/23 14:10	09/07/23 16:30



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR
Pace Project No.: 60437015

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60437015001 FAA	FAA-3-090623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
60437015002	0437015002 FAA-4-090623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
60437015003 FAA-6-090623	FAA-6-090623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
60437015004 DUP-FAA-090623	DUP-FAA-090623	EPA 903.1	CLM	1	PASI-PA
		EPA 904.0	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60437015

Method: EPA 903.1

Description: 903.1 Radium 226

Client: Evergy Kansas Central, Inc.

Date: October 06, 2023

General Information:

4 samples were analyzed for EPA 903.1 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60437015

Method: EPA 904.0

Description: 904.0 Radium 228

Client: Evergy Kansas Central, Inc.

Date: October 06, 2023

General Information:

4 samples were analyzed for EPA 904.0 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



PROJECT NARRATIVE

Project: JEC FAL CCR
Pace Project No.: 60437015

Method:Total Radium CalculationDescription:Total Radium 228+226Client:Evergy Kansas Central, Inc.

Date: October 06, 2023

General Information:

4 samples were analyzed for Total Radium Calculation by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



Project: JEC FAL CCR
Pace Project No.: 60437015

Sample: FAA-3-090623 PWS:	Lab ID: 6043 Site ID:	7015001 Collected: 09/06/23 14:10 Sample Type:	Received:	09/07/23 16:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.559 ± 0.521 (0.686) C:NA T:92%	pCi/L	09/22/23 14:45	5 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.710 ± 0.478 (0.930) C:81% T:81%	pCi/L	09/26/23 15:50	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.27 ± 0.999 (1.62)	pCi/L	09/27/23 15:14	7440-14-4	



Project: JEC FAL CCR
Pace Project No.: 60437015

Sample: FAA-4-090623 PWS:	Lab ID: 6043' Site ID:	7015002 Collected: 09/06/23 15:15 Sample Type:	Received:	09/07/23 16:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	-0.257 ± 0.771 (1.61) C:NA T:95%	pCi/L	09/22/23 14:4	5 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.701 ± 0.413 (0.759) C:80% T:83%	pCi/L	09/26/23 15:50) 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.701 ± 1.18 (2.37)	pCi/L	09/27/23 15:14	4 7440-14-4	



Project: JEC FAL CCR
Pace Project No.: 60437015

Sample: FAA-6-090623 PWS:	Lab ID: 6043 Site ID:	7015003 Collected: 09/06/23 13:25 Sample Type:	Received:	09/07/23 16:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.000 ± 0.593 (1.25) C:NA T:92%	pCi/L	09/22/23 14:56	6 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.0705 ± 0.303 (0.692) C:81% T:86%	pCi/L	09/26/23 15:5	1 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.0705 ± 0.896 (1.94)	pCi/L	09/27/23 15:14	4 7440-14-4	



Project: JEC FAL CCR
Pace Project No.: 60437015

Sample: DUP-FAA-090623 PWS:	Lab ID: 6043 Site ID:	7015004 Collected: 09/06/23 14:10 Sample Type:	Received:	09/07/23 16:30	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 903.1	0.178 ± 0.698 (1.34) C:NA T:93%	pCi/L	09/22/23 14:4	5 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 904.0	0.267 ± 0.304 (0.634) C:82% T:83%	pCi/L	09/26/23 15:5	1 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.445 ± 1.00 (1.97)	pCi/L	09/27/23 15:14	4 7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR
Pace Project No.: 60437015

QC Batch: 615736 Analysis Method: EPA 903.1

QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60437015001, 60437015002, 60437015003, 60437015004

METHOD BLANK: 2998672 Matrix: Water
Associated Lab Samples: 60437015001, 60437015002, 60437015003, 6043701

Associated Lab Samples: 60437015001, 60437015002, 60437015003, 60437015004

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.136 ± 0.326 (0.630) C:NA T:100%
 pCi/L
 09/22/23 14:30

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL - RADIOCHEMISTRY

Project: JEC FAL CCR
Pace Project No.: 60437015

QC Batch: 615737 Analysis Method: EPA 904.0

QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 60437015001, 60437015002, 60437015003, 60437015004

METHOD BLANK: 2998673 Matrix: Water

Associated Lab Samples: 60437015001, 60437015002, 60437015003, 60437015004

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.390 ± 0.254 (0.451) C:82% T:87%
 pCi/L
 09/26/23 15:52

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: JEC FAL CCR Pace Project No.: 60437015

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Date: 10/06/2023 05:06 PM

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR
Pace Project No.: 60437015

Date: 10/06/2023 05:06 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60437015001	FAA-3-090623	EPA 903.1	615736		
60437015002	FAA-4-090623	EPA 903.1	615736		
60437015003	FAA-6-090623	EPA 903.1	615736		
60437015004	DUP-FAA-090623	EPA 903.1	615736		
60437015001	FAA-3-090623	EPA 904.0	615737		
60437015002	FAA-4-090623	EPA 904.0	615737		
60437015003	FAA-6-090623	EPA 904.0	615737		
60437015004	DUP-FAA-090623	EPA 904.0	615737		
60437015001	FAA-3-090623	Total Radium Calculation	618468		
60437015002	FAA-4-090623	Total Radium Calculation	618468		
60437015003	FAA-6-090623	Total Radium Calculation	618468		
60437015004	DUP-FAA-090623	Total Radium Calculation	618468		



Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-LENE-0009_Sample

Revision: 2	ffective Date: 01/12/2022	Issued By: Lenexa	
Client Name: Every/ Tansas (91tral		
Courier: FedEx UPS VIA Clay	PEX □ ECI □ Pac	ce 🗆 Xroads 🗆 Client 🗷 Other 🗆	
Tracking #:	Pace Shipping Label Used?	Yes 🖒 No 🗹	
Custody Seal on Cooler/Box Present: Yes No 🗆	Seals intact: Yes	No □	
Packing Material: Bubble Wrap ☐ Bubble Bag	s □ Foam □	None Other □	
Thermometer Used: 12/19 Type	of Ice: Wet Blue None		
Cooler Temperature (°C): As-read 31,2 Corr. Fa	actor 10,3 Corrected	Date and initials of p examining contents:	erson
Temperature should be above freezing to 6°C		14 F 01.	7
Chain of Custody present:	DVES ONO ON/A	$\epsilon = -q$	
Chain of Custody relinquished:	□Ves □No □N/A		
Samples arrived within holding time:	Yes ONO ON/A		
Short Hold Time analyses (<72hr):	□Yes □Mo □N/A		
Rush Turn Around Time requested:	□Yes LENO □N/A		
Sufficient volume:	r o o o o o o o o o o o o o o o o o o o		
Correct containers used:	ØYes □No □N/A		
Pace containers used:	Des □No □N/A		
Containers intact:	Yes No N/A		
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No ŒM/A		
Filtered volume received for dissolved tests?	□Yes □No 10 N/A		
Sample labels match COC: Date / time / ID / analyses	©Yes □No □N/A		
Samples contain multiple phases? Matrix: WT	□Yes MaNo □N/A		
Containers requiring pH preservation in compliance?		sample IDs, volumes, lot #'s of preservate/time added.	ive and the
(HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) (Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	T#: 6704001	eriime added.	
Cyanide water sample checks:	1#: 050		
Lead acetate strip turns dark? (Record only)	□Yes □No		
Potassium iodide test strip turns blue/purple? (Preserve)	□Yes □No		
Trip Blank present:	□Yes □No □NA		
Headspace in VOA vials (>6mm):	□Yes □No □M/A		
Samples from USDA Regulated Area: State:	□Yes □No ►N/A		
Additional labels attached to 5035A / TX1005 vials in the fig	eld? 🗆 Yes 🗆 No 🛂 N/A		
Client Notification/ Resolution: Copy CO	C to Client? Y / N	Field Data Required? Y / N	
Person Contacted: Dat	e/Time:	-	
Comments/ Resolution:			
Project Manager Povicus	Data		
Project Manager Review:	Date:		



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section	Δ.	Ca-4: D							_		_															_					
Required	Client Information:	Section B Required Proje	ct Info	rmation:						tion (ıtion:														P	age:	1	of	1	
Company	EVERGY KANSAS CENTRAL, INC.	Report To: Sa	mantl	na Kaney					_	ntion:			ounts	Pay	/able					\neg						_					
Address:	Jeffrey Energy Center (JEC)	Сору То: Ја	ke Hu	mphrey, L	aura Hir	nes			Com	pany i	Name	e: E	VEF	GY	KAN	SAS	S CE	NTF	RAL,	INC	REGI	JLAT	ORY	AGE	ENC	Y					
	818 Kansas Ave, Topeka, KS 66612								_	ress:			Sect		_					+	_	IPDES					WATI	ER 🗆	DRINKIN	IG WATE	R
Email To	skaney@haleyaldrich.com	Purchase Orde	r No.:							Quote	,						_			\dashv		JST		- R			••,		OTHER	io iinil	
Phone:	507-251-2232 Fax:	Project Name:	JEC	FAL CC	R				Pace	rence: Projec	zt ,	Alice	Spi	ler 9	13-5	63-1	140:	3		┪		Locati	_		.010	_			WWW.		
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	Section D Valid Matrix C Required Client Information MATRIX	CODE 0	C=COMP)		COLL	ECTED					F	Prese	ervat	ives		N /A	1	Т	T	leu A	illaly:	IS FI	nere	RU (17	T	Τ					
	WATER WASTE WATER PRODUCT SOIL/SOLID OIL	P SL OL BEA	(G=GRAB C=C	COMP: STAI		COMPO: END/GR	SITE RAB	COLLECTION	s										Combine								(A/N)	604	1370	919	
ITEM#	AIR AIR	MA S S S S S S S S S S S S S S S S S S S	1 5	DATE	TIME	DATE	TIME	SAMPLE TEMP AT 0	# OF CONTAINERS	Unpreserved	H ₂ SO ₄	HNO3	NaOH	Na ₂ S ₂ O ₃	Methanol	Analysis Test	+ Alianysis lesi	Radium 228	Radium 226/228	QC Sheets							Residual Chlorine (Y/N)	Pace	Project	No./ Lab	LD.
1	FAA-3-090623	w	_	78		09/06/23	14:10	1.	2	+-		2	T	П		+	\neg	(x		x	\top	Ħ	\dashv	+	+	\top	Ħ	1 000	- roject	110.7 E00	
2	FAA-4-090623	w	+			09/06/23	15:15		2	-		2	T	П	7	1		(x	_	x	+	Ħ	T		_		Н				
3	FAA-6-090623	w	G	7963	14	09/06/23	13:25		2	1		2		П				(x	1	x	\top	\Box	T		\top		П				
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Page 17 of 22						PRINT Nam			_	on R	. Fra	anks	20	/	7		7	DATE	Sign	ed						-	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	mples Int	(A/N)
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Profile #

1657-7

Site: JECFAL CCR

Notes

COC Line Item	Matrix	VG9H	DG9H	DG9O	VG9U	DG9N	DG9M	DG9B	BG1U	AG1H	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	врзи	BP1N	BP3N	врзг	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
1	WT																					7									
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3																						2									
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6																															
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12																															

Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	11	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic	ii.	
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		B.d. a.t
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		Matrix
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250ml NaOH, Zn Acetate	WP	Wipe
		97		BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		
				BP4S	125mL H2SO4 plastic		

WPDU

16oz unpresserved plstic

Work Order Number:

601/37019

Internal Transfer Chain of	Custody	/ —					***************************************				THE STATE OF THE S	_		7
	Samples I	Pre-Logged i	into eCO	C.		e Of Or Neede	_		Yes	No		/-		ace a
Workorder: 60437015 Workorder Nan	ne: JEC FAL	CCR				er Rec				9/7/2023	Result	s Reque	sted B	y: 10/6/2023
Report To	Subcontract	T6								Requested	l Analysis			A STATE OF THE STA
Alice Spiller Pace Analytical Kansas 9608 Loiret Blvd. Lenexa, KS 66219 Phone (913)599-5665	1638 Ro Suites 2 Greensb	nalytical Pittsbi oseytown Road 3,3, & 4 ourg, PA 1560 724)850-5600	d 11	Pres	erved Con	itainers,	QC Sheets	Radium 226	ım 228, and combined					
	ollect ate/Time L	_ab ID	Matrix	HNO3				A CONTRACTOR OF THE PROPERTY O	Radium					LAB USE ONLY
1 FAA-3-090623 PS 9/	6/2023 14:10 6	0437015001	Water	2			TX	X	Х					001
	6/2023 15:15 6	0437015002	Water	2			X	X	х				$\dashv \dashv$	052
3 FAA-6-090623 PS 9/1	6/2023 13:25 6	0437015003	Water	2			X	X	Х				11	063
	6/2023 14:10 6	0437015004	Water	2			Х	X	Х					กซ์ป
5		·												
T	1	L				1					Co	mments		STORY OF THE STORY OF
1 Released By	Date/Time	Received By		-		Date/Ti		_ լ						
2	9:11:27 17	φο 2	en s	odi-1	nce:	9/12/2	13/0	ae I						
3	_					ļ	-	4						
Cooler Temperature on Receipt°C	Custo	dy Seal Y	or (N)	<u> </u>	Rece	eived o	n Ice	<u> </u>	or	(N).	Sa	mples I	ntact (Oor N

WO#:30620971

^{***}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.

.0	DC#_Title: ENV-FRM- Pittsburgh	GBUI	₹-008	38 v0:			n Upon Receipt- : 30620971
/-Pace	Effective Date: 07/06/2023				1996	: MAR	Due Date: 10/03/2
Client Name:	Puce-KS				CL.	IENT:	PACE_60_LEKS
. di							Initial / Date
	Ex UPS USPS Client	U Com	merci: O	al UP	ace ⊔ Other -		
Tracking Number	er: <u> </u>	11		1211			Examined By: 19 9 13-73
Custody Seal on Thermometer U	•	es 🕅 N pe of lo			Intact: Ye	s 🖄 No	Labeled By:
Cooler Tempera	ture: Observed Temp	,wa>	۰C	Corre	ction Factor: _ <		•C Final Temp:•C
Temp should be abo	ve freezing to 6°C						
		т	Т	T	pH paper Lot#	•	D.P.D. Residual Chlorine Lot #
Comments:		Yes	No	NA	1020831		
Chain of Custody		<u> X</u>	-	-	1.		
Chain of Custody		X	.,	ļ	2.		
	corrections present on COC	-	X]		
Chain of Custody		+x	43	 -	3. 4.		
Sampler Name & Sample Labels m	Signature on COC:	$+$ \checkmark	X		5.		
-Includes da				<u> </u>	J,		
Matrix:	\	۸۲ °T"					
	within Hold Time:	11 J		Ţ	6.		
Short Hold Time		+			7.		
remaining):	Alidiyaia (172111		Х		' '		
	nd Time Requested:		X	<u> </u>	8.		
Sufficient Volum		X			9.		
Correct Containe	rs Used:	X			10.	•	
-Pace Contai	ners Used	ス					
Containers Intact	**	X			11.		
Orthophosphate				1	12.		
	samples field filtered:			ᅩ	13.		
	checked for dechlorination			X	14:		
	eceived for dissolved tests:	 		$\perp X$	15:		
	ecked for preservation:		L	[16.		
•	/OA, coliform, TOC, O&G, idon, non-aqueous matrix				pHc2		
All containers me requirement	eet method preservation s:	X			Initial when completed Lot# of added	4	Date/Time of Preservation
3260C/D: Headsp	ace in VOA Vials (> 6mm)			Ϋ	Preservative 17.		
	e in VOA Vials (0mm)			义	18.		
Trip Blank Presen	t:			X	Trip blank o	custody	seal present? YES or NO
Rad Samples Scre	ened <0.5 mrem/hr.			·	Initial when completed	Date	: G/12/33 Survey Meter SN: 156 7

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LHMS through the SRF Review schedule in the Workorder Edit Screen.

Pace Analytical www.pacelabs.com

Quality Control Sample Performance Assessment

Test: Ra-226
Analyst: CLM
Date: 9/15/2023
Batch ID: 75321
Matrix: DW

 Method Blank Assessment
 MB Sample ID
 2998672

 MB concentration:
 0.136

 M/B Counting Uncertainty:
 0.326

 MB MDC:
 0.630

 MB Numerical Performance Indicator:
 0.82

 MB Status vs Numerical Indicator:
 N/A

 MB Status vs. MDC:
 Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Υ
	LCS75321	LCSD75321
Count Date:	9/22/2023	9/22/2023
Spike I.D.:	23-013	23-013
Spike Concentration (pCi/mL):	32.282	32.282
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.651	0.651
Target Conc. (pCi/L, g, F):	4.957	4.962
Uncertainty (Calculated):	0.233	0.233
Result (pCi/L, g, F):	5.487	5.775
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.233	1.312
Numerical Performance Indicator:	0.83	1.20
Percent Recovery:	110.69%	116.40%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	133%	133%
Lower % Recovery Limits:	73%	73%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F):	5.487 1.233 5.775 1.312	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.314	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.03%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	32%	l .

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	**	
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:	I	
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:	i .	
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:	1	
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:	1	l

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D. Sample MS I.D. Sample MSD I.D.	
Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD: MS/ MSD Duplicate Status vs Numerical Indicator: MS/ MSD Duplicate Status vs RPD: MS/ MSD Duplicate Status vs RPD: % RPD Limit:	

^{##} Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the RL.

Comments

Susul's

Ra-226 NELAC QC Printed: 9/22/2023 16:02

5 of 16

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Ra-228 Test: Analyst: VAL 9/19/2023 Date: 75322 WT Worklist: Matrix:

Method Blank Assessment MB Sample ID 2998673 MB concentration: 0.390 M/B 2 Sigma CSU: 0.254 MB MDC: 0.451 3.01 MB Numerical Performance Indicator: Fail* MB Status vs Numerical Indicator: MB Status vs. MDC: Pass

	U 00D 0(100	
Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS75322	LCSD75322
Count Date:	9/26/2023	9/26/2023
Spike I.D.:	23-043	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.668	39.668
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.815	0.817
Target Conc. (pCi/L, g, F):	4.865	4.856
Uncertainty (Calculated):	0.238	0.238
Result (pCi/L, g, F):	4.398	3.640
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.975	0.836
Numerical Performance Indicator:	-0.91	-2.74
Percent Recovery:	90.40%	74.96%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment		
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F): Are sample and/or duplicate results below RI.? Duplicate Numerical Performance Indicator: (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: **BYPL Limit**	LCSD75322 4.398 0.975 3.640 0.836 NO 1.157 18.67% Pass Pass	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		1
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:	L	l

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	
Sample MS i.D.	
Sample MSD I.D.	
Sample Matrix Spike Result:	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:	
MS/ MSD Duplicate Status vs Numerical Indicator:	
MS/ MSD Duplicate Status vs RPD:	
% RPD Limit:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

VAL 9/27/23 10f1

van 9/27/23

Pace Analytical Services, LLC 9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



October 04, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Kansas City

REVISED to include chloride, sulfate and the addition of mercury.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller alice.spiller@pacelabs.com (913)599-5665

Alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Melanie Satanek, Haley Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich



9608 Loiret Blvd. Lenexa, KS 66219 (913)599-5665



CERTIFICATIONS

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 88-00679 Illinois Certification #: 2000302023-5

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212023-1 Oklahoma Certification #: 2022-057 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-22-16 Utah Certification #: KS000212022-12

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60437056001	FAA-3-090623	Water	09/06/23 14:10	09/07/23 16:30
60437056002	FAA-4-090623	Water	09/06/23 15:15	09/07/23 16:30
60437056003	FAA-6-090623	Water	09/06/23 13:25	09/07/23 16:30
60437056004	DUP-FAA-090623	Water	09/06/23 14:10	09/07/23 16:30



SAMPLE ANALYTE COUNT

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

60437056002 FAA-4-090623	Method	Analysts	Analytes Reported	Laboratory	
60437056001	FAA-3-090623	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ALH	1	PASI-K
		SM 2540C	BDH1	1	PASI-K
		SM 4500-H+B	RKA	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60437056002	FAA-4-090623	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ALH	1	PASI-K
		SM 2540C	BDH1	1	PASI-K
		SM 4500-H+B	RKA	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60437056003	FAA-6-090623	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ALH	1	PASI-K
		SM 2540C	BDH1	1	PASI-K
		SM 4500-H+B	RKA	1	PASI-K
		EPA 300.0	MLD	3	PASI-K
60437056004	DUP-FAA-090623	EPA 200.7	JXD	3	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	3	PASI-K
		EPA 245.1	ALH	1	PASI-K
		SM 2540C	BDH1	1	PASI-K
		SM 4500-H+B	RKA	1	PASI-K
		EPA 300.0	MLD	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: October 04, 2023

General Information:

4 samples were analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Method: EPA 6010
Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: October 04, 2023

General Information:

4 samples were analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: October 04, 2023

General Information:

4 samples were analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Method: EPA 245.1 Description: 245.1 Mercury

Client: Evergy Kansas Central, Inc.

Date: October 04, 2023

General Information:

4 samples were analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Method: SM 2540C

Description: 2540C Total Dissolved Solids **Client:** Evergy Kansas Central, Inc.

Date: October 04, 2023

General Information:

4 samples were analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Method: SM 4500-H+B

Description: 4500H+ pH, Electrometric **Client:** Evergy Kansas Central, Inc.

Date: October 04, 2023

General Information:

4 samples were analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA required holding time.

- DUP-FAA-090623 (Lab ID: 60437056004)
- FAA-3-090623 (Lab ID: 60437056001)
- FAA-4-090623 (Lab ID: 60437056002)
- FAA-6-090623 (Lab ID: 60437056003)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days **Client:** Evergy Kansas Central, Inc.

Date: October 04, 2023

General Information:

4 samples were analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 865021

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60437054003,60437056002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3425432)
 - Fluoride

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

Sample: FAA-3-090623	Lab ID: 604	37056001	Collected: 09/06/2	3 14:10	Received: 09	/07/23 16:30 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	•		00.7 Preparation Met	hod: EF	PA 200.7			
	Pace Analytic	al Services -	Kansas City					
Barium, Total Recoverable	0.033	mg/L	0.0050	1	09/14/23 12:10	09/18/23 13:07	7440-39-3	
Boron, Total Recoverable	0.50	mg/L	0.10	1		09/18/23 13:07		
Calcium, Total Recoverable	232	mg/L	0.20	1	09/14/23 12:10	09/18/23 13:07	7440-70-2	
6010 MET ICP	Analytical Met	hod: EPA 60	010 Preparation Meth	nod: EP	A 3010			
	Pace Analytic	al Services -	Kansas City					
Lithium, Total Recoverable	0.014	mg/L	0.010	1	09/14/23 12:10	09/18/23 14:14	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	00.8 Preparation Met	hod: EF	PA 200.8			
	Pace Analytic	al Services -	Kansas City					
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:10	7440-38-2	
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:10	7440-48-4	
Molybdenum, Total Recoverable	0.0064	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:10	7439-98-7	
245.1 Mercury	Analytical Met	hod: EPA 24	45.1 Preparation Met	hod: EF	PA 245.1			
•	Pace Analytic	al Services -	Kansas City					
Mercury	<0.20	ug/L	0.20	1	09/29/23 10:45	10/02/23 10:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Met	hod: SM 25	40C					
	Pace Analytic	al Services -	Kansas City					
Total Dissolved Solids	1330	mg/L	13.3	1		09/12/23 09:03		
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
p.,	Pace Analytic							
pH at 25 Degrees C	6.9	Std. Units	0.10	1		09/12/23 14:56		H6
300.0 IC Anions 28 Days	Analytical Met	hod: FPA 30	0.0					
	Pace Analytic							
Chloride	128	mg/L	10.0	10		09/29/23 14:35	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		09/21/23 00:05		
Sulfate	532	mg/L	50.0	50		09/29/23 15:13		



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

Sample: FAA-4-090623	Lab ID: 604	37056002	Collected: 09/06/2	23 15:15	Received: 09	9/07/23 16:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Met	hod: EPA 20	0.7 Preparation Me	hod: EF	PA 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	0.051	mg/L	0.0050	1	09/14/23 12:10	09/18/23 13:13	7440-39-3	
Boron, Total Recoverable	0.59	mg/L	0.10	1	09/14/23 12:10	09/18/23 13:13	7440-42-8	
Calcium, Total Recoverable	198	mg/L	0.20	1	09/14/23 12:10	09/18/23 13:13	7440-70-2	
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Met	nod: EP	A 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	0.020	mg/L	0.010	1	09/14/23 12:10	09/18/23 14:21	7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Me	hod: EF	PA 200.8			
	Pace Analytica	al Services -	Kansas City					
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:12	2 7440-38-2	
Cobalt, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:12	7440-48-4	
Molybdenum, Total Recoverable	0.0072	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:12	7439-98-7	
245.1 Mercury	Analytical Met	hod: EPA 24	5.1 Preparation Met	hod: EF	PA 245.1			
	Pace Analytica	al Services -	Kansas City					
Mercury	0.46	ug/L	0.20	1	09/29/23 10:45	10/02/23 10:55	7439-97-6	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	10C					
	Pace Analytica	al Services -	Kansas City					
Total Dissolved Solids	1270	mg/L	13.3	1		09/12/23 09:03	3	
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
•	Pace Analytica	al Services -	Kansas City					
pH at 25 Degrees C	7.1	Std. Units	0.10	1		09/12/23 15:06	6	H6
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
-	Pace Analytica	al Services -	Kansas City					
Chloride	105	mg/L	10.0	10		09/29/23 15:26	16887-00-6	
Fluoride	<0.20	mg/L	0.20	1		09/21/23 00:17		M1
Sulfate	454	mg/L	50.0	50		09/29/23 15:38	14808-79-8	



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

Sample: FAA-6-090623	Lab ID: 604	37056003	Collected: 09/06/2	23 13:25	Received: 09	/07/23 16:30 N	Matrix: Water					
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual				
200.7 Metals, Total	Analytical Method: EPA 200.7 Preparation Method: EPA 200.7											
	Pace Analytic	al Services -	Kansas City									
Barium, Total Recoverable	0.027	mg/L	0.0050	1	09/14/23 12:10	09/18/23 13:15	7440-39-3					
Boron, Total Recoverable	2.7	mg/L	0.10	1	09/14/23 12:10							
Calcium, Total Recoverable	117	mg/L	0.20	1	09/14/23 12:10	09/18/23 13:15	7440-70-2					
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010											
	Pace Analytical Services - Kansas City											
Lithium, Total Recoverable	0.010	mg/L	0.010	1	09/14/23 12:10	09/18/23 14:23	7439-93-2					
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	hod: EP	A 200.8							
	Pace Analytic	al Services -	Kansas City									
Arsenic, Total Recoverable	0.0085	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:23	7440-38-2					
Cobalt, Total Recoverable	0.0012	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:23	7440-48-4					
Molybdenum, Total Recoverable	0.29	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:23	7439-98-7					
245.1 Mercury	Analytical Method: EPA 245.1 Preparation Method: EPA 245.1											
	Pace Analytic	al Services -	Kansas City									
Mercury	<0.20	ug/L	0.20	1	09/29/23 10:45	10/02/23 10:58	7439-97-6					
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	10C									
	Pace Analytic	al Services -	Kansas City									
Total Dissolved Solids	2080	mg/L	40.0	1		09/12/23 09:04						
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B									
p,	Pace Analytic											
pH at 25 Degrees C	7.3	Std. Units	0.10	1		09/09/23 13:46		H6				
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0									
	Pace Analytic											
Chloride	67.4	mg/L	10.0	10		09/29/23 15:51	16887-00-6					
Fluoride	<0.20	mg/L	0.20	1		09/21/23 00:43						
Sulfate	731	mg/L	100	100		10/04/23 11:33						



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

Sample: DUP-FAA-090623	Lab ID: 604	37056004	Collected: 09/06/2	3 14:10	Received: 09	/07/23 16:30 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.7 Metals, Total	Analytical Met		0.7 Preparation Met	hod: EF	PA 200.7			
Barium, Total Recoverable Boron, Total Recoverable Calcium, Total Recoverable	0.033 0.49 228	mg/L mg/L mg/L	0.0050 0.10 0.20	1 1 1	09/14/23 12:10 09/14/23 12:10 09/14/23 12:10	09/18/23 13:17	7440-42-8	
6010 MET ICP	Analytical Met Pace Analytica		110 Preparation Meth Kansas City	nod: EP	A 3010			
Lithium, Total Recoverable	0.014	mg/L	0.010	1	09/14/23 12:10	09/18/23 14:25	7439-93-2	
200.8 MET ICPMS	Analytical Met Pace Analytica		0.8 Preparation Met Kansas City	hod: EF	PA 200.8			
Arsenic, Total Recoverable Cobalt, Total Recoverable Molybdenum, Total Recoverable	<0.0010 <0.0010 0.0065	mg/L mg/L mg/L	0.0010 0.0010 0.0010	1 1 1	09/14/23 12:10 09/14/23 12:10 09/14/23 12:10	09/18/23 12:26	7440-48-4	
245.1 Mercury	Analytical Met Pace Analytica		5.1 Preparation Met Kansas City	hod: EF	PA 245.1			
Mercury	<0.20	ug/L	0.20	1	09/29/23 10:45	10/02/23 11:00	7439-97-6	
2540C Total Dissolved Solids	Analytical Met Pace Analytica							
Total Dissolved Solids	1320	mg/L	13.3	1		09/13/23 10:33		
4500H+ pH, Electrometric	Analytical Met Pace Analytica							
pH at 25 Degrees C	7.0	Std. Units	0.10	1		09/12/23 15:00		H6
300.0 IC Anions 28 Days	Analytical Met Pace Analytica							
Chloride Fluoride Sulfate	126 <0.20 537	mg/L mg/L mg/L	10.0 0.20 50.0	10 1 50		09/29/23 16:16 09/20/23 18:11 09/29/23 16:28	16984-48-8	



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 866779 Analysis Method: EPA 245.1

QC Batch Method: EPA 245.1 Analysis Description: 245.1 Mercury

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

METHOD BLANK: 3432454 Matrix: Water
Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Mercury ug/L <0.20 0.20 10/02/23 10:44

LABORATORY CONTROL SAMPLE: 3432455

Spike LCS LCS % Rec Conc. % Rec Limits Qualifiers Parameter Units Result Mercury 5.0 99 85-115 ug/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3432456 3432457

MS MSD

60437056001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Result Conc. Limits Qual 5 20 Mercury ug/L < 0.20 5 3.6 3.6 71 72 70-130

MATRIX SPIKE SAMPLE: 3432458

Date: 10/04/2023 05:02 PM

MS MS % Rec 60438105001 Spike Qualifiers Parameter Units Result Conc. Result % Rec Limits ND 5 5.1 102 70-130 Mercury ug/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Calcium

Calcium

Date: 10/04/2023 05:02 PM

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

LABORATORY CONTROL SAMPLE:

QC Batch: 864481 Analysis Method: EPA 200.7

QC Batch Method: EPA 200.7 Analysis Description: 200.7 Metals, Total

> Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

METHOD BLANK: Matrix: Water

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

3422952

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	09/18/23 13:03	
Boron	mg/L	<0.10	0.10	09/18/23 13:03	
Calcium	mg/L	<0.20	0.20	09/18/23 13:03	

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Barium 1 1.0 104 85-115 mg/L

10

0.95 Boron mg/L 95 85-115 1 10 104 Calcium mg/L 10.4 85-115

232

mg/L

mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3422953												
		60437056001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	mg/L	0.033	1	1	1.1	1.1	105	103	70-130	1	20	
Boron	mg/L	0.50	1	1	1.5	1.5	97	97	70-130	0	20	

MATRIX SPIKE SAMPLE: 3422955 60437062001 Spike MS MS % Rec Parameter Units Result Conc. Result % Rec Limits Qualifiers Barium mg/L 312 ug/L 1.3 103 70-130 Boron mg/L < 0.10 1 1.0 95 70-130

101

10

242

10

242

111

102

102

97

70-130

70-130

0 20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Arsenic

Cobalt

Date: 10/04/2023 05:02 PM

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 864485 Analysis Method: EPA 200.8 QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET

> Laboratory: Pace Analytical Services - Kansas City

60437056001, 60437056002, 60437056003, 60437056004 Associated Lab Samples:

METHOD BLANK: 3422970 Matrix: Water

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

Blank Reporting Qualifiers Parameter Units Result Limit Analyzed mg/L < 0.0010 0.0010 09/18/23 12:04 mg/L < 0.0010 0.0010 09/18/23 12:04 Molybdenum mg/L <0.0010 09/18/23 12:04 0.0010

LABORATORY CONTROL SAMPLE: 3422971

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	mg/L	0.04	0.040	101	85-115	
Cobalt	mg/L	0.04	0.041	102	85-115	
Molybdenum	mg/L	0.04	0.041	103	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3422972												
			MS	MSD								
		60437056002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/L	< 0.0010	0.04	0.04	0.042	0.041	103	102	70-130	1	20	
Cobalt	mg/L	< 0.0010	0.04	0.04	0.040	0.040	98	98	70-130	0	20	
Molybdenum	mg/L	0.0072	0.04	0.04	0.049	0.049	105	104	70-130	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

QC Batch: 864487 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

METHOD BLANK: 3422984 Matrix: Water
Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 09/18/23 14:10

LABORATORY CONTROL SAMPLE: 3422985

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 0.97 97 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3422986 3422987

MS MSD

60437056001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Conc. Limits 0.014 20 Lithium mg/L 1.0 1.0 99 99 75-125

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 864073 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056001, 60437056002, 60437056003

METHOD BLANK: 3421464 Matrix: Water

Associated Lab Samples: 60437056001, 60437056002, 60437056003

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L <5.0 5.0 09/12/23 08:59

LABORATORY CONTROL SAMPLE: 3421465

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 1010 101 80-120

1000 1010 101 00 12

SAMPLE DUPLICATE: 3421466

60436977001 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 5230 **Total Dissolved Solids** 4810 8 mg/L 10

SAMPLE DUPLICATE: 3421467

Date: 10/04/2023 05:02 PM

60437054004 Dup Max RPD RPD Parameter Units Result Result Qualifiers Total Dissolved Solids 638 mg/L 659 3 10

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 864208 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056004

METHOD BLANK: 3421941 Matrix: Water

Associated Lab Samples: 60437056004

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Total Dissolved Solids mg/L <5.0 5.0 09/13/23 10:33

LABORATORY CONTROL SAMPLE: 3421942

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 996 100 80-120

SAMPLE DUPLICATE: 3421943

60437056004 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 1320 **Total Dissolved Solids** mg/L 1370 4 10

SAMPLE DUPLICATE: 3421944

Date: 10/04/2023 05:02 PM

60436986003 Dup Max RPD RPD Parameter Units Result Result Qualifiers 10 Total Dissolved Solids 24500 2 mg/L 25000

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 863862 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056003

SAMPLE DUPLICATE: 3420733

Date: 10/04/2023 05:02 PM

60437058001 Dup Max Parameter Units Result RPD RPD Qualifiers Result 6.7 pH at 25 Degrees C 6.8 5 H6 Std. Units 0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 863911 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056001, 60437056002, 60437056004

SAMPLE DUPLICATE: 3421007

Date: 10/04/2023 05:02 PM

 Parameter
 Units
 60437056001 Result
 Dup Result
 Max RPD
 Max RPD
 Qualifiers

 pH at 25 Degrees C
 Std. Units
 6.9
 7.0
 1
 5 H6

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 865021 Analysis Method: EPA 300.0 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

> Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

METHOD BLANK: Matrix: Water Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

> Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Fluoride < 0.20 0.20 09/19/23 20:42 mg/L

METHOD BLANK: 3427934 Matrix: Water Associated Lab Samples:

60437056001, 60437056002, 60437056003, 60437056004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Fluoride 09/21/23 09:49 < 0.20 0.20 mg/L

METHOD BLANK: 3428539 Matrix: Water

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

> Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

09/20/23 16:38 Fluoride mg/L < 0.20 0.20

METHOD BLANK: 3428677 Matrix: Water

Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

> Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Fluoride < 0.20 0.20 09/19/23 20:42 mg/L

LABORATORY CONTROL SAMPLE: 3425429

LCS LCS % Rec Spike Parameter Conc. Result % Rec Limits Units

104 Fluoride mg/L 2.5 2.6 90-110

LABORATORY CONTROL SAMPLE: 3427935

Date: 10/04/2023 05:02 PM

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers

Fluoride mg/L 2.5 2.5 99 90-110

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Qualifiers



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

LABORATORY CONTROL SA	AMPLE: 34	128540										
			Spike	LC		LCS	% R					
Parameter		Units	Conc.	Res	sult	% Rec	Limi	ts (Qualifiers	_		
Fluoride		mg/L	2.	.5	2.4	97	7 9	90-110				
LABORATORY CONTROL SA	AMPLE: 34	128678										
			Spike	LC		LCS	% R					
Parameter		Units	Conc.	Res	sult ————————————————————————————————————	% Rec	Limi	ts (Qualifiers	_		
Fluoride		mg/L	2.	.5	2.5	99	9 9	90-110				
		Ū										
MATRIX SPIKE & MATRIX SF	PIKE DUPLIO		430 MS	MSD	3425431							
MATRIX SPIKE & MATRIX SF				MSD Spike	3425431 MS	MSD	MS	MSD	% Rec		Max	
MATRIX SPIKE & MATRIX SP		CATE: 3425	MS	_			MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Parameter	6	CATE: 3425	MS Spike	Spike	MS	MSD			Limits	RPD 2	RPD	Qual
Parameter	Units mg/L	CATE: 3425 60437054003 Result	MS Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec	Limits		RPD	Qual
Parameter Fluoride	Units mg/L	CATE: 3425 60437054003 Result <0.20	MS Spike Conc. 2.5	Spike Conc. 2.5	MS Result	MSD Result 2.5	% Rec 101	% Rec	80-120 % Rec	2	RPD	Qual
Parameter Fluoride	Units mg/L	CATE: 3425 60437054003 Result <0.20	MS Spike Conc. 2.5	Spike Conc. 2.5	MS Result 2.5	MSD Result 2.5	% Rec 101	% Rec 99	80-120	2	RPD	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Chloride

Sulfate

Sulfate

QUALITY CONTROL DATA

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

QC Batch: 866679 Analysis Method: EPA 300.0 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

> Laboratory: Pace Analytical Services - Kansas City

60437056001, 60437056002, 60437056003, 60437056004 Associated Lab Samples:

METHOD BLANK: Matrix: Water Associated Lab Samples:

60437056001, 60437056002, 60437056003, 60437056004

Blank Reporting Qualifiers Parameter Units Result Limit Analyzed <1.0 09/29/23 10:07 mg/L 1.0 mg/L <1.0 1.0 09/29/23 10:07

METHOD BLANK: 3435487 Matrix: Water Associated Lab Samples: 60437056001, 60437056002, 60437056003, 60437056004

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers Chloride <1.0 10/04/23 10:00 mg/L 1.0 10/04/23 10:00 mg/L <1.0 1.0

LABORATORY CONTROL SAMPLE: 3432190

LCS LCS % Rec Spike Parameter Conc. Result % Rec Limits Qualifiers Units Chloride 5 4.7 95 90-110 mg/L Sulfate 5.0 mg/L 5 99 90-110

LABORATORY CONTROL SAMPLE: 3435488

Date: 10/04/2023 05:02 PM

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Chloride 4.9 98 90-110 mg/L 5 Sulfate 5 5.0 100 90-110 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3432191 3432192

Parameter	Units	60437743001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	65800	50000	50000	109000	115000	87	98	80-120	5	15	
Sulfate	mg/L	ND	50000	50000	51400	53600	90	95	80-120	4	15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

MATRIX SPIKE SAMPLE:	3432193						
		60437745006	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	<0.53	5	4.8	89	80-120	
Sulfate	mg/L	<0.55	5	5.1	101	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 10/04/2023 05:02 PM

H6 Analysis initiated outside of the 15 minute EPA required holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JEC FAL CCR-Revised Report

Pace Project No.: 60437056

Date: 10/04/2023 05:02 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60437056001	FAA-3-090623	EPA 200.7	864481	EPA 200.7	864587
60437056002	FAA-4-090623	EPA 200.7	864481	EPA 200.7	864587
60437056003	FAA-6-090623	EPA 200.7	864481	EPA 200.7	864587
60437056004	DUP-FAA-090623	EPA 200.7	864481	EPA 200.7	864587
60437056001	FAA-3-090623	EPA 3010	864487	EPA 6010	864590
60437056002	FAA-4-090623	EPA 3010	864487	EPA 6010	864590
60437056003	FAA-6-090623	EPA 3010	864487	EPA 6010	864590
60437056004	DUP-FAA-090623	EPA 3010	864487	EPA 6010	864590
60437056001	FAA-3-090623	EPA 200.8	864485	EPA 200.8	864589
60437056002	FAA-4-090623	EPA 200.8	864485	EPA 200.8	864589
60437056003	FAA-6-090623	EPA 200.8	864485	EPA 200.8	864589
60437056004	DUP-FAA-090623	EPA 200.8	864485	EPA 200.8	864589
60437056001	FAA-3-090623	EPA 245.1	866779	EPA 245.1	866818
60437056002	FAA-4-090623	EPA 245.1	866779	EPA 245.1	866818
60437056003	FAA-6-090623	EPA 245.1	866779	EPA 245.1	866818
60437056004	DUP-FAA-090623	EPA 245.1	866779	EPA 245.1	866818
60437056001	FAA-3-090623	SM 2540C	864073		
60437056002	FAA-4-090623	SM 2540C	864073		
60437056003	FAA-6-090623	SM 2540C	864073		
60437056004	DUP-FAA-090623	SM 2540C	864208		
60437056001	FAA-3-090623	SM 4500-H+B	863911		
60437056002	FAA-4-090623	SM 4500-H+B	863911		
60437056003	FAA-6-090623	SM 4500-H+B	863862		
60437056004	DUP-FAA-090623	SM 4500-H+B	863911		
60437056001	FAA-3-090623	EPA 300.0	865021		
60437056001	FAA-3-090623	EPA 300.0	866679		
60437056002	FAA-4-090623	EPA 300.0	865021		
60437056002	FAA-4-090623	EPA 300.0	866679		
60437056003	FAA-6-090623	EPA 300.0	865021		
60437056003	FAA-6-090623	EPA 300.0	866679		
60437056004	DUP-FAA-090623	EPA 300.0	865021		
60437056004	DUP-FAA-090623	EPA 300.0	866679		

WO#:60437056

60437056

Pace

DC#_Title: ENV-FRM-LENE-0009_Sample C

Revision: 2	ffective Date: 01/12/2022	Issued By: Lenexa	
Client Name: Every Kansas Cen	hod		
Courier: FedEx UPS VIA Clay	PEX □ ECI □ Pac	e □ Xroads □ Client ₺ Other □	
Tracking #:	ace Shipping Label Used?	es □ No the	
Custody Seal on Cooler/Box Present: Yes No	Seals intact: Yes	No 🗆	
Packing Material: Bubble Wrap □ Bubble Bag	s □ Foam □	None ☑ Other □	
Thermometer Used: 1049 Type	of Ice: Wet Blue None		
Cooler Temperature (°C): As-read 3, Corr. Fa	ctor <u>-0.3</u> Corrected	Date and initials of person examining contents:	on
Temperature should be above freezing to 6°C		AF 919	
Chain of Custody present:	ØYes □No □N/A		
Chain of Custody relinquished:	ÛVes □No □N/A		
Samples arrived within holding time:	ÜYes □No □N/A		
Short Hold Time analyses (<72hr):	□Yes ŪNo □N/A		
Rush Turn Around Time requested:	□Yes No □N/A		
Sufficient volume:	DYes □No □N/A		
Correct containers used:	res No N/A		
Pace containers used:	Yes DNo DN/A		
Containers intact:	Des Ono On/A		
Unpreserved 5035A / TX1005/1006 soils frozen in 48hrs?	□Yes □No ŪNIA		
iltered volume received for dissolved tests?	□Yes □No ĠN/A		
Sample labels match COC: Date / time / ID / analyses	dives ONO ON/A		
samples contain multiple phases? Matrix:	□Yes ENo □N/A		
Containers requiring pH preservation in compliance?		ample IDs, volumes, lot #'s of preservative a	and the
HNO ₃ , H ₂ SO ₄ , HCl<2; NaOH>9 Sulfide, NaOH>10 Cyanide) Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	6.204001	ime added.	
yanide water sample checks: LOT:	#: <i>D 00 •</i> ·		
ead acetate strip turns dark? (Record only)	□Yes □No		
otassium iodide test strip turns blue/purple? (Preserve)	□Yes □No		
rip Blank present:	□Yes □No □MA		
eadspace in VOA vials (>6mm):	□Yes □No 🕩 🖟		
amples from USDA Regulated Area: State:	□Yes □No ŪMA		
ditional labels attached to 5035A / TX1005 vials in the field	!? □Yes □No ΔIN/A		
ient Notification/ Resolution: Copy COC		ield Data Required? Y / N	
erson Contacted: Date/	Time:		
omments/ Resolution:			
oject Manager Review:	Date:		



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section Require	I A d Client Information:	Section B Required Proje	ect Info	mation:						tion (F	Page:	1	of	1
Compan	EVERGY KANSAS CENTRAL, INC.	Report To: Sa							_	ice Info ntion:	_	tion: Accol	ınts	Paya	able				_	\neg						_	_			
Address	Jeffrey Energy Center (JEC)	Copy To: Ja	ke Hu	mphrey, L	.aura Hir	ies			Com	pany l	Name	e: E/	/ER	SY K	ANS	SAS	CEN	ITR	AL.	ING.	250	ULAT	ODV	/ AC	ENC					
	818 Kansas Ave, Topeka, KS 66612							_		ress:		See S	_				_	_		-1	_	NPDE:			_		IA/A T	ER [DDINKA	IO MATER
Email To	skaney@haleyaldrich.com	Purchase Orde	r No.:						Pace	Quote					_		_		_	-1							VVAIL			IG WATER
Phone:	507-251-2232 Fax:	Project Name:	JEC	C FAL CC	R					rence: Projec	ct	Alice	Spille	ar Q	13_56	33_1	403		_	-	_	UST	_	1	RCRA				OTHER	
Request	ed Due Date/TAT:	Project Numbe							Mana			9657,	•		10-50	30-1-	+00			_	Site	Locat	- 1		KS	s				
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	Section D Valid Matrix C			_				_	_	_		_		_		╁	_	lequ	iest	ed A	naly	sis Fi	Itere	ed (Y	/N)	_				
	Required Client Information MATRIX	CODE 0	OMP)		COLL	ECTED			ı		F	rese	vativ	es		N/A	N	N	N	N	N	ıIJ								
	WATER WASTE WATER PRODUCT SOIL/SOLID OIL SAMPLE ID WIPE AIR	CODE DW WY DIPEN 985	(G=GRAB	COMP(STAI		COMPO: END/GF	SITE RAB	AT COLLECTION	IERS							Test 1		letals**		40	*						rine (Y/N)	604	370	56
ITEM #	(A-Z, 0-9 / ,-) OTHER Sample IDs MUST BE UNIQUE TISSUE	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP /	# OF CONTAINERS	Unpreserved	H ₂ SO₄	HZI HCI	NaOH	Na ₂ S ₂ O ₃	Other	lysis	200.7 Total Metals'	200.8 Total Metals	H+B pl	R.	2540C IDS	0010 10tai E					Residual Chlorine (Y/N)	Pace	· Project	No./ Lab I.D.
1	FAA-3-090623	w	r G	24	-	09/06/23	14:10	-	4	3		1.	Ш				х	х	х	х	x :	<								
2	FAA-4-090623	w	T G	- 5-		09/06/23	15:15	-	4	3		1	Ш			1	x	х	х	х	x :						Ш			
3	FAA-6-090623	w	G	39	- 8	09/06/23	13:25		4	3		1	Ц			1	×	х	х	x	x :						Ш			
4	DUP-FAA-090623	w	r G	:#		09/06/23	14:10	-	4	3		1		_		1	X	х	х	х	x :		_	_			Ц			
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200.7 To	tal Metals*: B, Ca, Ba,	+ -	Lintgo	IONED D17	ALLIGATI	-	DAIL	-	-	1 [lai	-	-				al		ILIA	IION		۱,					1		SAMI	LE CONDI	IIONS
200.8 To	tai Metals**: As, Co, Mo, ♣,		Jaso	n R. Frank	s / SCS		9/7/2	3	1	16:00	+		J	A	-	٧,		_			4	2/1/1	2	ιΨ	30	2	0	Y	1.	
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Page 31 of						PRINT Name			Jas	on R	Fra	anks	7	1	1	1	D/	ATE S	Signe	ed							Temp in °C	Received or Ice (Y/N)	Custody Sealed Cooler (Y/N)	mples Intact (Y/N)
of 32						SIGNATURE	of SAMP	LER	-	2	-,	K	3	_	1	_		IM/DI				9/	7/23	3		Ι'		ž –	Sei	Sam

evision: 3 Effective Date: Issued by: Lenexa
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Client: Evergy Kangas Central

Site: JEC FAL CCR

Profile #	9697	-6	

Notes

COC Line Item	Matrix	VG9H	реэн	DG9G	VG9U	DG9N	DG9M	DG9B	BG1U	АG1Н	AG1U	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	ВРЗО	BP1N	-BP3N	ВРЗЕ	BP3S	врзс	BP3Z	WPDU	ZPLC	Other		
1	WI																		1		2		1									
2																			l		2		1									
3																			1		2		1_									
4																			1		1	_	1									
5																					_			_								
6																																
7																					_				_							
8																_					-				-	_						
9	1																					_			-							
10																									-							
11														-	_							-			_	-		-		-		
12																															L	

Container Codes

Codes						7	
		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	1	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
DG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
DG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
VG9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
VG9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
VG9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		Matrix
BG1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic		
BG1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	[WT	Water
BG3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
BG3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
WGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
WODO	1002 diedi doli jai	AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
		1		BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		
				BP4S	125mL H2SO4 plastic		

WPDU

16oz unpresserved plstic

Work Order Number:





September 22, 2023

Jake Humphrey Evergy, Inc. 818 S Kansas Avenue Topeka, KS 66612

RE: Project: MW-FAA-5

Pace Project No.: 60437058

Dear Jake Humphrey:

Enclosed are the analytical results for sample(s) received by the laboratory on September 07, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

• Pace Analytical Services - Kansas City

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Alice Spiller alice.spiller@pacelabs.com (913)599-5665

alice Spiller

PM Lab Management

Enclosures

cc: Shelly Gomez, Evergy
Laura Hines, Evergy, Inc.
Shannon Hughes, Evergy
Adam Irvin, Evergy
Samantha Kaney, Haley & Aldrich
Melanie Satanek, Haley Aldrich
Adriana Sosa, Haley & Aldrich, Inc.
Andrew Watson, Haley & Aldrich







CERTIFICATIONS

Project: MW-FAA-5 Pace Project No.: 60437058

Pace Analytical Services Kansas

9608 Loiret Boulevard, Lenexa, KS 66219

Missouri Inorganic Drinking Water Certification #: 10090

Arkansas Drinking Water

Arkansas Certification #: 88-00679 Illinois Certification #: 2000302023-5

Iowa Certification #: 118

Kansas/NELAP Certification #: E-10116 Louisiana Certification #: 03055 Nevada Certification #: KS000212023-1 Oklahoma Certification #: 2022-057 Florida: Cert E871149 SEKS WET Texas Certification #: T104704407-22-16 Utah Certification #: KS000212022-12

Illinois Certification #: 004592

Kansas Field Laboratory Accreditation: # E-92587 Missouri SEKS Micro Certification: 10070



SAMPLE SUMMARY

Project: MW-FAA-5 Pace Project No.: 60437058

Lab ID	Sample ID	Matrix	Date Collected	Date Received
60437058001	FAA-5-090623	Water	09/06/23 09:50	09/07/23 16:30



SAMPLE ANALYTE COUNT

Project: MW-FAA-5 Pace Project No.: 60437058

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
60437058001	FAA-5-090623	EPA 200.7	JXD	6	PASI-K
		EPA 6010	JXD	1	PASI-K
		EPA 200.8	JGP	7	PASI-K
		EPA 245.1	ALH	1	PASI-K
		SM 2540C	BDH1	1	PASI-K
		SM 4500-H+B	RKA	1	PASI-K
		EPA 300.0	MLD	3	PASI-K

PASI-K = Pace Analytical Services - Kansas City



PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60437058

Method: EPA 200.7

Description: 200.7 Metals, Total

Client: Evergy Kansas Central, Inc.

Date: September 22, 2023

General Information:

1 sample was analyzed for EPA 200.7 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.7 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60437058

Method: EPA 6010 Description: 6010 MET ICP

Client: Evergy Kansas Central, Inc.

Date: September 22, 2023

General Information:

1 sample was analyzed for EPA 6010 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60437058

Method: EPA 200.8

Description: 200.8 MET ICPMS

Client: Evergy Kansas Central, Inc.

Date: September 22, 2023

General Information:

1 sample was analyzed for EPA 200.8 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 200.8 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60437058

Method: EPA 245.1 Description: 245.1 Mercury

Client: Evergy Kansas Central, Inc.

Date: September 22, 2023

General Information:

1 sample was analyzed for EPA 245.1 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 865259

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60437042001

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3426366)
 - Mercury
- MSD (Lab ID: 3426367)
 - Mercury

Additional Comments:



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60437058

Method: SM 2540C

Description:2540C Total Dissolved SolidsClient:Evergy Kansas Central, Inc.Date:September 22, 2023

General Information:

1 sample was analyzed for SM 2540C by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5 Pace Project No.: 60437058

Method: SM 4500-H+B

Description:4500H+ pH, ElectrometricClient:Evergy Kansas Central, Inc.Date:September 22, 2023

General Information:

1 sample was analyzed for SM 4500-H+B by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H6: Analysis initiated outside of the 15 minute EPA required holding time.

• FAA-5-090623 (Lab ID: 60437058001)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.



PROJECT NARRATIVE

Project: MW-FAA-5
Pace Project No.: 60437058

Method: EPA 300.0

Description: 300.0 IC Anions 28 Days
Client: Evergy Kansas Central, Inc.
Date: September 22, 2023

General Information:

1 sample was analyzed for EPA 300.0 by Pace Analytical Services Kansas City. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 865021

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 60437054003,60437056002

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 3425432)
 - Chloride
 - Fluoride
 - Sulfate
- MSD (Lab ID: 3425431)
 - Sulfate

R1: RPD value was outside control limits.

- MSD (Lab ID: 3425431)
 - Sulfate

Additional Comments:

Analyte Comments:

QC Batch: 865021

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 3425430)
 - Sulfate
- MS (Lab ID: 3425432)
 - Chloride
 - Sulfate
- MSD (Lab ID: 3425431)
 - Sulfate

This data package has been reviewed for quality and completeness and is approved for release.



ANALYTICAL RESULTS

Project: MW-FAA-5 Pace Project No.: 60437058

Date: 09/22/2023 03:59 PM

Sample: FAA-5-090623	Lab ID: 604	37058001	Collected: 09/06/2	23 09:50	Received: 09	0/07/23 16:30	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
200.7 Metals, Total	Analytical Met	hod: EPA 20	0.7 Preparation Met	hod: EP	A 200.7			
	Pace Analytica	al Services -	Kansas City					
Barium, Total Recoverable	<0.0050	mg/L	0.0050	1	09/14/23 12:10	09/18/23 13:1	9 7440-39-3	
Beryllium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10			
Boron, Total Recoverable	1.7	mg/L	0.10	1	09/14/23 12:10	09/18/23 13:1	9 7440-42-8	
Calcium, Total Recoverable	542	mg/L	0.20	1	09/14/23 12:10	09/18/23 13:1	9 7440-70-2	
Chromium, Total Recoverable	< 0.0050	mg/L	0.0050	1	09/14/23 12:10	09/18/23 13:1	9 7440-47-3	
Lead, Total Recoverable	<0.010	mg/L	0.010	1	09/14/23 12:10	09/18/23 13:1	9 7439-92-1	
6010 MET ICP	Analytical Met	hod: EPA 60	10 Preparation Meth	nod: EPA	A 3010			
	Pace Analytica	al Services -	Kansas City					
Lithium, Total Recoverable	0.14	mg/L	0.010	1	09/14/23 12:10	09/18/23 14:2	7 7439-93-2	
200.8 MET ICPMS	Analytical Met	hod: EPA 20	0.8 Preparation Met	hod: EP	A 200.8			
	Pace Analytica	al Services -	Kansas City					
Antimony, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:2	8 7440-36-0	
Arsenic, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10			
Cadmium, Total Recoverable	<0.00050	mg/L	0.00050	1	09/14/23 12:10			
Cobalt, Total Recoverable	0.0017	mg/L	0.0010	1	09/14/23 12:10			
Molybdenum, Total Recoverable	0.019	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:2	8 7439-98-7	
Selenium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:2	8 7782-49-2	
Thallium, Total Recoverable	<0.0010	mg/L	0.0010	1	09/14/23 12:10	09/18/23 12:2	8 7440-28-0	
245.1 Mercury	Analytical Met	hod: EPA 24	5.1 Preparation Met	hod: EP	A 245.1			
	Pace Analytica	al Services -	Kansas City					
Mercury	<0.20	ug/L	0.20	1	09/20/23 11:12	09/21/23 14:1	1 7439-97-6	
2540C Total Dissolved Solids	Analytical Met	hod: SM 254	10C					
	Pace Analytica							
Total Dissolved Solids	3270	mg/L	66.7	1		09/13/23 10:3	3	
4500H+ pH, Electrometric	Analytical Met	hod: SM 450	00-H+B					
• ′	Pace Analytica							
pH at 25 Degrees C	6.7	Std. Units	0.10	1		09/09/23 13:1:	3	H6
300.0 IC Anions 28 Days	Analytical Met	hod: EPA 30	0.0					
	Pace Analytica							
Chloride	115	mg/L	20.0	20		09/20/23 18:3	8 16887-00-6	
Fluoride	0.25	mg/L	0.20	1		09/20/23 18:2		
FILIOHOE								



Project: MW-FAA-5 Pace Project No.: 60437058

QC Batch: 865259 QC Batch Method: EPA 245.1 Analysis Method: Analysis Description: EPA 245.1 245.1 Mercury

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60437058001

Parameter

Parameter

Date: 09/22/2023 03:59 PM

METHOD BLANK: 3426364

Matrix: Water

Associated Lab Samples: 60437058001

Blank

Result

Reporting Limit

Qualifiers Analyzed

Mercury < 0.20 0.20 09/21/23 13:44 ug/L

Units

Units

LABORATORY CONTROL SAMPLE: 3426365

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

Qualifiers

Mercury ug/L 5.1 101 85-115

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

3426366

5

60437042001 Parameter Units Result < 0.000096 Mercury ug/L

MSD MS Spike Spike Conc. Conc.

5

MS MSD Result Result 1.2

3426367

MS % Rec

1.2

24

MSD % Rec

24

% Rec Max **RPD** RPD Limits

20 M1 70-130

Qual

mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: MW-FAA-5 Pace Project No.: 60437058

QC Batch: 864481

Analysis Method:

EPA 200.7

QC Batch Method: EPA 200.7

Analysis Description: 200.7 Metals, Total

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60437058001

METHOD BLANK: 3422951

Date: 09/22/2023 03:59 PM

Matrix: Water

Associated Lab Samples: 60437058001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Barium	mg/L	<0.0050	0.0050	09/18/23 13:03	
Beryllium	mg/L	< 0.0010	0.0010	09/18/23 13:03	
Boron	mg/L	<0.10	0.10	09/18/23 13:03	
Calcium	mg/L	<0.20	0.20	09/18/23 13:03	
Chromium	mg/L	< 0.0050	0.0050	09/18/23 13:03	
Lead	ma/L	< 0.010	0.010	09/18/23 13:03	

LABORATORY CONTROL SAMPLE:	3422952	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L		1.0	104	85-115	
Beryllium	mg/L	1	1.0	103	85-115	
Boron	mg/L	1	0.95	95	85-115	
Calcium	mg/L	10	10.4	104	85-115	
Chromium	mg/L	1	1.0	103	85-115	
Lead	mg/L	1	1.1	106	85-115	

MATRIX SPIKE & MATRIX SI	PIKE DUPL	LICATE: 3422	953		3422954							
		00407050004	MS	MSD	МС	MCD	MC	MCD	0/ D		Marri	
Parameter	Units	60437056001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Farameter				CONC.		Resuit	70 KeC	% Kec	LIIIIIIS		KPD	Quai
Barium	mg/L	0.033	1	1	1.1	1.1	105	103	70-130	1	20	
Beryllium	mg/L	< 0.0010	1	1	1.0	1.0	103	102	70-130	1	20	
Boron	mg/L	0.50	1	1	1.5	1.5	97	97	70-130	0	20	
Calcium	mg/L	232	10	10	242	242	102	102	70-130	0	20	
Chromium	mg/L	< 0.0050	1	1	1.0	1.0	102	101	70-130	1	20	
Lead	mg/L	< 0.010	1	1	1.0	1.0	102	101	70-130	1	20	

MATRIX SPIKE SAMPLE:	3422955						
		60437062001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/L	312 ug/L	1	1.3	103	70-130	
Beryllium	mg/L	<1.0 ug/L	1	1.0	104	70-130	
Boron	mg/L	<0.10	1	1.0	95	70-130	
Calcium	mg/L	101	10	111	97	70-130	
Chromium	mg/L	<5.0 ug/L	1	1.0	102	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

Project: MW-FAA-5 Pace Project No.: 60437058

Date: 09/22/2023 03:59 PM

MATRIX SPIKE SAMPLE:	3422955						
		60437062001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Lead	mg/L	<10.0 ug/L		1.0	103	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: MW-FAA-5 Pace Project No.: 60437058

QC Batch: 864485
QC Batch Method: EPA 200.8

Analysis Method: EPA 200.8
Analysis Description: 200.8 MET

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437058001

METHOD BLANK: 3422970 Matrix: Water

Associated Lab Samples: 60437058001

Date: 09/22/2023 03:59 PM

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Antimony	mg/L	<0.0010	0.0010	09/18/23 12:04	
Arsenic	mg/L	< 0.0010	0.0010	09/18/23 12:04	
Cadmium	mg/L	< 0.00050	0.00050	09/18/23 12:04	
Cobalt	mg/L	< 0.0010	0.0010	09/18/23 12:04	
Molybdenum	mg/L	< 0.0010	0.0010	09/18/23 12:04	
Selenium	mg/L	< 0.0010	0.0010	09/18/23 12:04	
Thallium	mg/L	< 0.0010	0.0010	09/18/23 12:04	

LABORATORY CONTROL SAMPLE:	3422971	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	% Rec	Qualifiers
Antimony	mg/L	0.04	0.042	106	85-115	
Arsenic	mg/L	0.04	0.040	101	85-115	
Cadmium	mg/L	0.04	0.041	103	85-115	
Cobalt	mg/L	0.04	0.041	102	85-115	
Molybdenum	mg/L	0.04	0.041	103	85-115	
Selenium	mg/L	0.04	0.043	109	85-115	
Thallium	ma/l	0.04	0.042	106	85-115	

MATRIX SPIKE & MATRIX	SPIKE DUPL	ICATE: 3422			3422973	1						
Parameter	Units	60437056002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	<0.0010	0.04	0.04	0.042	0.041	104	103	70-130		20	
Arsenic	mg/L	< 0.0010	0.04	0.04	0.042	0.041	103	102	70-130	1	20	
Cadmium	mg/L	< 0.00050	0.04	0.04	0.038	0.037	94	93	70-130	1	20	
Cobalt	mg/L	< 0.0010	0.04	0.04	0.040	0.040	98	98	70-130	0	20	
Molybdenum	mg/L	0.0072	0.04	0.04	0.049	0.049	105	104	70-130	0	20	
Selenium	mg/L	< 0.0010	0.04	0.04	0.043	0.043	107	105	70-130	2	20	
Thallium	mg/L	< 0.0010	0.04	0.04	0.039	0.039	97	98	70-130	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: MW-FAA-5
Pace Project No.: 60437058

Date: 09/22/2023 03:59 PM

QC Batch: 864487 Analysis Method:
QC Batch Method: EPA 3010 Analysis Description:

Analysis Description: 6010 MET

Laboratory: Pace Analytical Services - Kansas City

EPA 6010

Associated Lab Samples: 60437058001

METHOD BLANK: 3422984 Matrix: Water

Associated Lab Samples: 60437058001

Blank Reporting
Parameter Units Result Limit Analyzed Qualifiers

Lithium mg/L <0.010 0.010 09/18/23 14:10

LABORATORY CONTROL SAMPLE: 3422985

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Lithium mg/L 0.97 97 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3422986 3422987

MS MSD

60437056001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual Result 0.014 20 Lithium mg/L 1.0 1.0 99 99 75-125 0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



MW-FAA-5

SAMPLE DUPLICATE: 3421943

SAMPLE DUPLICATE: 3421944

Parameter

Total Dissolved Solids

Total Dissolved Solids

Date: 09/22/2023 03:59 PM

Parameter

Project:

QUALITY CONTROL DATA

Pace Project No.: 60437058 QC Batch: 864208 Analysis Method: SM 2540C QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids Laboratory: Pace Analytical Services - Kansas City Associated Lab Samples: 60437058001 METHOD BLANK: 3421941 Matrix: Water Associated Lab Samples: 60437058001 Blank Reporting Qualifiers Parameter Units Result Limit Analyzed Total Dissolved Solids <5.0 5.0 09/13/23 10:33 mg/L LABORATORY CONTROL SAMPLE: 3421942 Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 1000 996 100 80-120

Dup

Result

Dup

Result

1370

25000

RPD

RPD

4

2

Max

RPD

Max

RPD

10

10

Qualifiers

Qualifiers

60437056004

Result

60436986003

Result

1320

24500

Units

mg/L

Units

mg/L

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: MW-FAA-5 Pace Project No.: 60437058

QC Batch: 863862 Analysis Method: SM 4500-H+B
QC Batch Method: SM 4500-H+B Analysis Description: 4500H+B pH

Laboratory: Pace Analytical Services - Kansas City

Associated Lab Samples: 60437058001

SAMPLE DUPLICATE: 3420733

Date: 09/22/2023 03:59 PM

60437058001 Dup Max Parameter Units Result RPD RPD Qualifiers Result 6.7 pH at 25 Degrees C 6.8 5 H6 Std. Units 0

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: MW-FAA-5 Pace Project No.: 60437058

QC Batch: 865021 QC Batch Method: EPA 300.0 Analysis Method: EPA 300.0

Analysis Description: 300.0 IC Anions

Laboratory:

Pace Analytical Services - Kansas City

Associated Lab Samples: 60437058001

METHOD BLANK: 3425428

Matrix: Water

Associated Lab Samples: 60437058001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	09/19/23 20:42	
Fluoride	mg/L	<0.20	0.20	09/19/23 20:42	
Sulfate	ma/L	<1.0	1.0	09/19/23 20:42	

METHOD BLANK: 3427934

Matrix: Water

Associated Lab Samples: 60437058001

Parameter	Units	Blank Result	Reporting Limit	Analvzed	Qualifiers
Chloride	mg/L	- 	1.0	09/21/23 09:49	
Fluoride	mg/L	<0.20	0.20	09/21/23 09:49	
Sulfate	mg/L	<1.0	1.0	09/21/23 09:49	

METHOD BLANK: 3428539

Matrix: Water

Associated Lab Samples: 60437058001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	09/20/23 16:38	
Fluoride	mg/L	<0.20	0.20	09/20/23 16:38	
Sulfate	mg/L	<1.0	1.0	09/20/23 16:38	

METHOD BLANK: 3428677

Matrix: Water

Associated Lab Samples: 60437058001

Date: 09/22/2023 03:59 PM

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<1.0	1.0	09/19/23 20:42	
Fluoride	mg/L	<0.20	0.20	09/19/23 20:42	
Sulfate	mg/L	<1.0	1.0	09/19/23 20:42	

LABORATORY CONTROL SAMPLE: 3425429

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.9	98	90-110	
Fluoride	mg/L	2.5	2.6	104	90-110	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: MW-FAA-5
Pace Project No.: 60437058

Date: 09/22/2023 03:59 PM

LABORATORY CONTROL SA	MPLE:	3425429										
			Spike	LC	S	LCS	% Re	ЭС				
Parameter		Units	Conc.	Res	ult	% Rec	Limit	ts	Qualifiers			
Sulfate		mg/L		5	5.1	103	9	90-110		_		
LABORATORY CONTROL SA	MPLE:	3427935										
Parameter		Units	Spike Conc.	LC Res		LCS % Rec	% Re Limit		Qualifiers			
Chloride		mg/L		5	4.7	94		90-110		_		
Fluoride		mg/L	2.5	5	2.5	99	9	90-110				
Sulfate		mg/L	5	5	4.9	98	9	90-110				
LABORATORY CONTROL SA	MPLE:	3428540										
			Spike	LC		LCS	% R					
Parameter		Units	Conc.	Res	ult	% Rec	Limit	ts	Qualifiers			
Chloride		mg/L		5	4.8	96	9	90-110				
Fluoride		mg/L	2.5	5	2.4	97		90-110				
Sulfate		mg/L	5	5	5.1	103	9	90-110				
LABORATORY CONTROL SA	MPLE:	3428678										
			Spike	LC	S	LCS	% Re	ЭС				
Parameter		Units	Conc.	Res	ult	% Rec	Limit	ts	Qualifiers			
Chloride		mg/L		5	4.9	98	9	90-110		_		
Fluoride		mg/L	2.5	5	2.5	99	9	90-110				
Sulfate		mg/L	5	5	5.3	105	9	90-110				
MATRIX SPIKE & MATRIX SP	IKE DUPI	LICATE: 3425	430		3425431							
			MS	MSD								
_	Units	60437054003 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Parameter									7 00 100	2	15	
	mg/L		100	100	203	206	94	97	7 80-120			
Chloride		109	100 2.5	100 2.5	203 2.5	206 2.5	94 101	97		2	15	
Parameter Chloride Fluoride Sulfate	mg/L	109						99				E,M1, R1
Chloride Fluoride Sulfate	mg/L mg/L mg/L	109 <0.20 994	2.5	2.5	2.5	2.5	101	99	9 80-120	2		
Chloride Fluoride Sulfate	mg/L mg/L mg/L	109 <0.20	2.5 250 604370	2.5 250 256002	2.5	2.5	101 116	99	9 80-120	23	15	R1
Chloride Fluoride Sulfate	mg/L mg/L mg/L	109 <0.20 994	2.5 250	2.5 250 256002	2.5 1290	2.5 1020	101 116	99	9 80-120 9 80-120	23		R1
Chloride Fluoride Sulfate MATRIX SPIKE SAMPLE:	mg/L mg/L mg/L	109 <0.20 994 3425432	2.5 250 604370	2.5 250 256002	2.5 1290 Spike	2.5 1020 MS Result	101 116	99 9	9 80-120 9 80-120 % Rec Limits	23	15 Quali	R1
Chloride Fluoride Sulfate MATRIX SPIKE SAMPLE: Parameter	mg/L mg/L mg/L	109 <0.20 994 3425432 Units	2.5 250 604370	2.5 250 056002	2.5 1290 Spike Conc.	2.5 1020 MS Result	101 116	99 99 98 MS 9 Rec	% Rec Limits	2 23	15 Quali M1	R1

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALIFIERS

Project: MW-FAA-5 Pace Project No.: 60437058

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 09/22/2023 03:59 PM

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H6 Analysis initiated outside of the 15 minute EPA required holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: MW-FAA-5 Pace Project No.: 60437058

Date: 09/22/2023 03:59 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
60437058001	FAA-5-090623	EPA 200.7	864481	EPA 200.7	864587
60437058001	FAA-5-090623	EPA 3010	864487	EPA 6010	864590
60437058001	FAA-5-090623	EPA 200.8	864485	EPA 200.8	864589
60437058001	FAA-5-090623	EPA 245.1	865259	EPA 245.1	865321
60437058001	FAA-5-090623	SM 2540C	864208		
60437058001	FAA-5-090623	SM 4500-H+B	863862		
60437058001	FAA-5-090623	EPA 300.0	865021		

WO#:60437058



Pace

DC#_Title: ENV-FRM-LENE-0009_Sample (

Revision. 2	Effective Date: 01/12/2022	Issued By: Lenexa	
Client Name: Every/K	ungas central	(1)	_1
Courier: FedEx UPS VIA		ce Xroads Client Other	
Tracking #:	Pace Shipping Label Used?	Yes □ No 🕒	
Custody Seal on Cooler/Box Present: Yes	No □ Seals intact: Yes 🗹	No □	
Packing Material: Bubble Wrap □ B	ubble Bags □ Foam □	None ② Other □	
Thermometer Used:	Type of Ice: Vet Blue None	D	
Cooler Temperature (°C): As-read 3.8	_Corr. Factor <u>– Q $\stackrel{\circ}{\mathcal{Z}}$</u> Corrected	7.5 Date and initials of poexamining contents:	erson
Temperature should be above freezing to 6°C		AF 9/8	
Chain of Custody present:	☐Yes ☐No ☐N/A	,	
Chain of Custody relinquished:	□ Ves □No □N/A		
Samples arrived within holding time:	₫Yes □No □N/A		
Short Hold Time analyses (<72hr):	□Yes □Mo □N/A		
Rush Turn Around Time requested:	□Yes 🗹 No □N/A		
Sufficient volume:	□lves □No □N/A		
Correct containers used:	des □no □n/a		
Pace containers used:	Yes No N/A		
Containers intact:	Yes 🗆 No 🗆 N/A		
Unpreserved 5035A / TX1005/1006 soils frozen ir	n 48hrs? □Yes □No DN/A		
Filtered volume received for dissolved tests?	□Yes □No 🎒N/A		
Sample labels match COC: Date / time / ID / anal	yses Pyes No N/A		
Samples contain multiple phases? Matrix:	M □Yes MNo □N/A		
Containers requiring pH preservation in compliand		sample IDs, volumes, lot #'s of preservati	ve and the
(HNO₃, H₂SO₄, HCl<2; NaOH>9 Sulfide, NaOH>10 Cya Exceptions: VOA, Micro, O&G, KS TPH, OK-DRO)	(a) (1) (d)	e/time added.	
Cyanide water sample checks:	LOT#: VOC NO		
_ead acetate strip turns dark? (Record only)	□Yes □No		
Potassium iodide test strip turns blue/purple? (Pre	eserve)		
Гrip Blank present:	□Yes □No 【DMA		
Headspace in VOA vials (>6mm):	□Yes □No ♣N/A		
Samples from USDA Regulated Area: State:	□Yes □No DMA		
Additional labels attached to 5035A / TX1005 vials	s in the field? Yes No No		
Client Notification/ Resolution:	Copy COC to Client? Y / N	Field Data Required? Y / N	
Person Contacted:	Date/Time:	φ	
Comments/ Resolution:			
Project Manager Review:	Date:		



CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

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	skaney@haleyaldrich.com	Purchase Or	der#								Quot		56 06	CUOII											╁					ndwater		$\neg \neg$
Phone:	(507) 251-2232 Fax	Project Nam			FAA-5					Pace	Proje	ect Ma	anage	er:	alice	spille.	r@pa	acela	bs.c	om,					1					Location		
the second second second	d Due Date:	Project #:								Pace	Profil	le #:	96	57, 1																KS		
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	MATRI	(CODÉ	s to left)	COMP)		COLLE	ECTED		z			F	rese	ervat	ives		1	Z	N	N	N	N I	N V	_	v				L			
	SAMPLE ID Water Product Soll/85 Oil	t P		(G=GRAB C=COMP)	STA	ART	EN	ID	SAMPLE TEMP AT COLLECTION	IERS								1se I se	Metals	Metals	al Metals	Iry, lotal	Total Dissolved Solids (TDS						orine (Y/N)	601	1370	194
ITEM#	One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique Wipe Air Other Tissue	OT	MATRIX CODE	SAMPLE TYPE	DATE	TIME	DATE	TIME	SAMPLE TEMP	# OF CONTAINERS	Unpreserved	H2S04	HOUS HOUS	NaOH	Na2S203	Methanol	Other	Analyses lest	"200 7 - Total Metals	-200 8 - Total Metals	6010 - Total Metals	245 1 - Mercury, Lotal	Total Dissolved Solic	1000	E.				Residual Chlorine (Y/N)			
1	FAA-5-090623		WT	۵			9/6/23	9:50	١.	5	3		2					-	x l	x	$_{x}$	x	, ,		x l							
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e 25 of 20							INT Name			_	o).		de	75		1	Λ	Jas	on R.			ned:			9	9/7/20:	23		TEMP in (Received Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Client:	Everoy	Kansas	Central

Site:	M	W-	F	4	A	-6

125mL H2SO4 plastic

16oz unpresserved plstic

COC Line Item	Matrix	VG9H	резн	DG9G	NG9N	DG9U	DG9M	DG9B	BG1U	AG1H	AG10	AG2U	AG3S	AG4U	AG5U	JGFU	WGKU	WGDU	BP1U	BP2U	вРзи	BP1N	BP3N	BP3F	BP3S	врзс	BP3Z	WPDU	ZPLC	Other	
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Container Codes

		Glass			Plastic		Misc.
DG9B	40mL bisulfate clear vial	WGKU	8oz clear soil jar	BP1C	1L NAOH plastic	11	Wipe/Swab
DG9H	40mL HCl amber voa vial	WGFU	4oz clear soil jar	BP1N	1L HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
DG9M	40mL MeOH clear vial	WG2U	2oz clear soil jar	BP1S	1L H2SO4 plastic	ZPLC	Ziploc Bag
DG9Q	40mL TSP amber vial	JGFU	4oz unpreserved amber wide	BP1U	1L unpreserved plastic	AF	Air Filter
OG9S	40mL H2SO4 amber vial	AG0U	100mL unores amber glass	BP1Z	1L NaOH, Zn Acetate	С	Air Cassettes
DG9T	40mL Na Thio amber vial	AG1H	1L HCl amber glass	BP2C	500mL NAOH plastic	R	Terracore Kit
OG9U	40mL amber unpreserved	AG1S	1L H2SO4 amber glass	BP2N	500mL HNO3 plastic	U	Summa Can
/G9H	40mL HCl clear vial	AG1T	1L Na Thiosulfate clear/amber glass	BP2S	500mL H2SO4 plastic		
√G9T	40mL Na Thio. clear vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic		
/G9U	40mL unpreserved clear vial	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Acetate		
3G1S	1liter H2SO4 clear glass	AG2S	500mL H2SO4 amber glass	BP3C	250mL NaOH plastic	1	Matrix
3G1U	1liter unpres glass	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic - field filtered	WT	Water
3G3H	250mL HCL Clear glass	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic	SL	Solid
3G3U	250mL Unpres Clear glass	AG3U	250mL unpres amber glass	BP3U	250mL unpreserved plastic	NAL	Non-aqueous Liquid
NGDU	16oz clear soil jar	AG4U	125mL unpres amber glass	BP3S	250mL H2SO4 plastic	OL	OIL
		AG5U	100mL unpres amber glass	BP3Z	250mL NaOH, Zn Acetate	WP	Wipe
				BP4U	125mL unpreserved plastic	DW	Drinking Water
				BP4N	125mL HNO3 plastic		

BP4S

WPDU

Work Order Number:

