2024 NC2 CCR Landfill Annual Groundwater Report

Nebraska City Station

NC2 Ash Disposal Area

Nebraska City, Nebraska
January 31, 2025

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Professional Engineer Certification

I hereby certify that to the best of my knowledge that this groundwater monitoring annual report is designed to meet the performance standard in 40 CFR Part 257 of the Federal Coal Combustion Residuals (CCR) rule.

I am duly licensed Professional Engineer under the laws of the State of Nebraska.

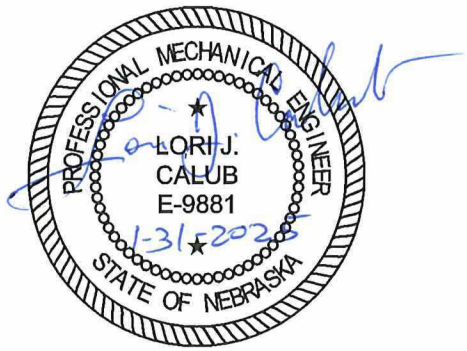
Print Name: Lori Calub

Signature: Lori Calub

Date: 1-31-2025

License #: E-9881

My license renewal date is December 31, 2025.



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Executive Summary

Omaha Public Power District (OPPD) owns and operates a two-unit fossil fuel-fired generating station (NC1 and NC2), located 5.5 miles southeast of Nebraska City, Nebraska, along the west bank of the Missouri River. This generating station (Station or Site) has two (2) existing coal combustion residual (CCR) landfills for fossil fuel combustion ash disposal: the NC1 Ash Disposal Area (closed) and the NC2 Ash Disposal Area (active). On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule for the regulation and management of CCR under Subtitle D of the Resource Conservation and Recovery Act. The rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257.

The purpose of this report is to provide a summary of CCR groundwater monitoring system activities for calendar year 2024 for the assessment monitoring program under 40 CFR §257.95 and corrective action monitoring under 40 CFR §257.96 for the NC2 Ash Disposal Area. The NC2 Ash Disposal Area is an existing CCR lined landfill permitted for 40.7 acres of disposal; Cell 1 (14.5 acres) and Cells 2 & 3 (26.2 acres); constructed with 24 inches of re-compacted clay overlain by a 60-mil high-density polyethylene geomembrane and geotextile fabric layer.

The NC2 Ash Disposal Area transitioned from detection monitoring to assessment monitoring following the fall 2019 sampling event due to calcium detected as a statistically significant increase (SSI) above the background threshold value in monitoring well NC2MW-2. An alternate source demonstration (ASD) for calcium was unsuccessful, and OPPD published a notification (dated April 24, 2020). An assessment monitoring program was initiated in accordance with 40 CFR §257.95 with the first sampling event in April 2020 and subsequent event July 2020. Results of assessment monitoring indicated three statistically significant levels (SSLs) over groundwater protection standards (GWPS); arsenic and lithium in NC2MW-7 and arsenic in NC2MW-8. OPPD published a notification of the exceedances and initiation of assessment of corrective measures (ACM) on November 25, 2020. An ACM report, dated December 22, 2020, was conducted to evaluate potential remedies for constituents with detected SSLs. A public meeting was conducted on August 25, 2021, and then on November 15, 2021, OPPD published a Remedy Selection Report (HDR, 2021a). The selected remedial system includes source control of windblown CCR and long-term performance monitoring. Initiation of the selected remedy began in December 2021 with submittal of draft permit modifications to the Nebraska Department of Energy and Environment (NDEE) under NDEE Title 132 regulations.

Groundwater has continued to be monitored at the Site in 2024, in accordance with 40 CFR §257.95. For the April 2024 sampling event, results of the analysis indicated eight (8) SSIs above background. One (1) new SSI was detected (sulfate in NC2MW-2). There was one continued SSL above GWPS (lithium at NC2MW-7) and no newly detected SSLs.

For the October 2024 sampling event, results of the analysis indicated 10 SSIs above background. Two (2) potential new SSIs were detected (thallium in NC2MW-2 and

NC2MW-3). There was one continued SSL above GWPS (lithium in NC2MW-7) and no newly detected SSLs.

Arsenic has been shown to be naturally occurring and highly variable at the NC2 Ash Disposal Area and is therefore not treated as an SSL under the ASD granted by the NDEE correspondence dated May 5, 2020. The Site will continue to be monitored semi-annually, as specified in 40 CFR §257.96(b) and will continue implementation of corrective measures in accordance with the schedule specified in the Selection of Remedy Report (HDR, 2021a). The next sampling event is anticipated to occur in April 2025.

As specified in 40 CFR §257.90(e)(6), a section must be included 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. The following table summarizes the required information under 40 CFR §257.90(e)(6).

Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance			
§ 257.90(e)(6) 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:		**NC2 Ash Disposal Area**	
§257.90(e)(6)(i)	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.	Assessment Monitoring Program	
§257.90(e)(6)(ii)	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.	Assessment Monitoring Program	
		Compliance Monitoring Event	
		April 2024	October 2024
§257.90(e)(6)(iii)	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):	Yes	Yes
§257.90(e)(6)(iii)(A)	Identify those constituents listed in appendix III to this part and the names of the monitoring wells associated with such an increase.	• NC2MW-2 – calcium & sulfate	• NC2MW-2 – calcium
§257.90(e)(6)(iii)(B)	Provide the date when the assessment monitoring program was initiated for the CCR unit.	April 24, 2020	
§257.90(e)(6)(iv)	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:	Yes	Yes

Summary of 40 CFR Section § 257.90(e)(6) Groundwater Monitoring System Requirements and Site-Specific Compliance			
§ 257.90(e)(6) 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:		**NC2 Ash Disposal Area**	
§257.90(e)(6)(iv) (A)	Identify those constituents listed in appendix IV to this part and the names of the monitoring wells associated with such an increase.	• NC2MW-7 – lithium	• NC2MW-7 – lithium
§257.90(e)(6)(iv) (B)	Provide the date when the assessment of corrective measures was initiated for the CCR unit.	December 14, 2020	
§257.90(e)(6)(iv)(C)	Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.	August 25, 2021	
§257.90(e)(6)(iv)(D)	Provide the date when the assessment of corrective measures was completed for the CCR unit.	November 15, 2021 – Remedy Selection Report	
§257.90(e)(6)(v)	Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection.	Remedy selected in 2021	
§257.90(e)(6)(vi)	(vi) Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.	Remedial activities initiated and performance monitoring ongoing	

1 Introduction

On April 17, 2015, the United States Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residual (CCR) under Subtitle D of the Resource Conservation and Recovery Act. The CCR rule is formally promulgated in the U.S. Code of Federal Regulations (CFR), Title 40, Part 257. The rule – effective on October 19, 2015 – applies to electric utilities and independent power producers that fall within North American Industry Codes System code 221112, and facilities that produce or store CCR materials in surface impoundments or landfills (EPA, 2015). The CCR rule defines a set of requirements for the disposal and handling of CCR within units (defined as either landfills or surface impoundments). This regulation applies to the Omaha Public Power District (OPPD), Nebraska City Station.

1.1 Purpose

The CCR Rule, 40 CFR §257.90(e), specifies that an owner or operator of an existing CCR landfill prepare an annual groundwater monitoring and corrective action report to summarize key actions completed, problems encountered, and upcoming activities related to the groundwater monitoring system. The information included in this report complies with the requirements established in 40 CFR §257.90(e) of the CCR Rule. This report provides a summary of CCR groundwater monitoring system activities for calendar year 2024 for the assessment monitoring program under 40 CFR §257.95 and corrective action monitoring under 40 CFR §257.98 for the NC2 Ash Disposal Area which is a lined landfill located at the Site.

1.2 Facility Information

OPPD owns and operates a two-unit fossil fuel-fired generating station (NC1 and NC2), located 5.5 miles southeast of Nebraska City, Nebraska, along the west bank of the Missouri River (**Figure 1**). This Station has two existing CCR landfills: the NC1 Ash Disposal Area (closed) and NC2 Ash Disposal Area (active). The CCR landfills are permitted under the current Nebraska Department of Environment and Energy (NDEE) Title 132 Chapter 7 (Groundwater Monitoring and Remedial Action) regulations for fossil fuel combustion ash disposal areas. This annual report covers the NC2 Ash Disposal Area (NDEE Permit No. NE0204421, Facility ID 58343).

The NC2 Ash Disposal Area is an existing CCR lined landfill permitted for 40.7 acres of disposal; Cell 1 (14.5 acres) and the East Leachate Pond were constructed in 2008/2009 and Cells 2 & 3 (26.2 acres), along with the West Leachate Pond, were completed January 23, 2020. Base liners for Cells 1 through 3 were constructed with 24 inches of re-compacted clay overlain by a 60-mil high-density polyethylene geomembrane and geotextile fabric layer. The leachate collection system for Cell 1 collects leachate at the sump and is then pumped to the East Leachate Pond. The leachate collection system for Cells 2 & 3 collects leachate at two sumps, which is then pumped to the West Leachate Pond. **Figure 2** identifies the relevant CCR unit for this report and the supporting groundwater monitoring network.

2 Monitoring Program Summary

The groundwater monitoring network currently consists of three upgradient/background monitoring wells (NC2MW-4, NC2MW-5, and MW-13), four downgradient monitoring wells (NC2MW-2, NC2MW-3, NC2MW-7, and NC2MW-8), and one cross-gradient monitoring well (NC2MW-6). Monitoring well details for the monitoring network, including the date of installation, is provided in **Table 1**. No new wells were constructed, and no wells were abandoned in 2024. The location of the monitoring wells in the groundwater monitoring program with respect to the CCR unit, NC2 Ash Disposal Area, are shown in **Figure 2**.

2.1 Summary of Monitoring Program Transitions

OPPD complies with Nebraska State regulations (NDEE Title 132) and the EPA's regulations for the disposal of CCR, as specified in 40 CFR Part 257 (CCR Rule). As part of these regulatory programs, the NC2 Ash Disposal Area is monitored semi-annually under detection or assessment monitoring programs. Under the detection monitoring program, constituents listed in Appendix III of 40 CFR Part 257 are evaluated for statistically significant increases (SSIs) above background. Under the assessment monitoring program, constituents listed in Appendix IV of 40 CFR Part 257 are evaluated for SSIs above background and for statistically significant levels (SSLs) over groundwater protection standards (GWPS). The following table outlines the transition of groundwater monitoring programs and subsequent actions and reports.

Date	Groundwater Compliance Monitoring Milestones
01/30/2018	Semi-annual detection monitoring. Potential SSIs during fall 2017 sampling event in downgradient monitoring wells for calcium and pH. A successful alternate source demonstration (ASD) indicated the SSIs resulted from an error in statistical evaluation.
06/06/2018	Semi-annual detection monitoring. A potential SSI during spring 2018 sampling event in one downgradient monitoring well for pH. A successful ASD indicated the SSI was a result of sampling error.
01/31/2019	Semi-annual detection monitoring. There were no SSIs during the fall 2018 sampling event.
04/08/2019	Semi-annual detection monitoring. Potential SSI detected for calcium. Verification sampling on 6/26/2019 indicated the SSI was not confirmed and the network continued with detection monitoring.
10/15/2019	Semi-annual detection monitoring. Potential SSI detected for calcium. Verification sampling on 01/08/2020 indicated the SSI was confirmed.
11/6/2019	A Groundwater Assessment Report (GAR) was submitted to NDEE to address the Title 132 specific constituents with SSIs detected during the fall 2019 sampling event. The GAR indicated barium, pH, and sulfate were not confirmed SSIs due to statistical error, and arsenic and iron were a result of natural variation. NDEE approved the GAR on May 5, 2020. The GAR indicated an alternative source for arsenic at the site.
4/24/2020	Notification published for unsuccessful alternate source demonstration (ASD) for calcium within 90-day deadline. Initiation of assessment monitoring program in accordance with 40 CFR §257.95.

Date	Groundwater Compliance Monitoring Milestones
4/27/2020	Initial round of sampling for initiation of assessment monitoring. Background threshold values (BTVs) and GWPS were established for assessment monitoring constituents following the first round of sampling.
07/15/2020	Second round of sampling for initiation of assessment monitoring. SSIs detected for downgradient wells for calcium, antimony, arsenic, barium, cadmium, cobalt, and lithium. There was one SSL detected (lithium at NC2MW-7).
10/05/2020	Semi-annual assessment monitoring. SSIs detected for downgradient wells for calcium, antimony, arsenic, barium, cadmium, and lithium. There was one SSL detected (lithium at NC2MW-7).
11/25/2020	Notification published for detected SSL.
12/14/2020	Initiation of assessment of corrective measures program in accordance with 40 CFR §257.96.
12/22/2020	Assessment of Corrective Measures Report (HDR, 2020b) to evaluate potential remedies for constituent with detected SSL.
4/12/2021	Semi-annual assessment monitoring. SSIs detected for downgradient wells for antimony, arsenic, barium, fluoride, and lithium. There was one SSL detected (lithium at NC2MW-7).
8/25/2021	Public meeting conducted to discuss corrective measures (HDR, 2021a).
10/4/2021	Semi-annual assessment monitoring. SSIs detected for downgradient wells for arsenic, barium, cadmium, cobalt, radium 226 + 228, lithium, and molybdenum. There was one SSL detected (lithium at NC2MW-7).
11/15/2021	Remedy Selection Report (HDR, 2021a) to select a remedial system for constituents with detected SSLs.
4/4/2022	Semi-annual assessment monitoring. SSIs detected for downgradient wells for antimony, arsenic, barium, calcium, chloride, cobalt, lithium, selenium, sulfate, and total dissolved solids (TDS). There was one SSL detected (lithium at NC2MW-7).
10/3/2022	Semi-annual assessment monitoring. SSIs detected for downgradient wells for antimony, arsenic, barium, calcium, cobalt, lithium, molybdenum, radium 226+228, and TDS. There was one SSL detected (lithium at NC2MW-7).
4/6/2023	Semi-annual assessment monitoring. SSIs detected for downgradient wells for antimony, barium, calcium, cobalt, lithium, molybdenum, and radium 226 + 228 combined. There was one SSL detected (lithium at NC2MW-7).
10/10/2023	Semi-annual assessment monitoring. SSIs detected for downgradient wells for antimony, arsenic, barium, lithium, mercury, and molybdenum. There was one SSL detected (lithium at NC2MW-7).
4/15/2024	Semi-annual assessment monitoring. SSIs detected for downgradient wells for antimony, arsenic, barium, calcium, lithium, and sulfate. There was one SSL detected (lithium at NC2MW-7).
10/7/2024	Semi-annual assessment monitoring. SSIs detected for downgradient wells for antimony, arsenic, barium, calcium, lithium, and thallium. There was one SSL detected (lithium at NC2MW-7).

2.2 Groundwater Monitoring Network Condition Assessment

OPPD personnel evaluated the condition of each monitoring well in the groundwater monitoring system during the sampling events in April 2024 and October 2024. No repairs were required at the monitoring wells. All wells were noted in good working condition, concrete pads were intact, and no damage was observed to the protective well casings.

3 Data Evaluation and Summary

3.1 Summary of Sampling Activities

Groundwater sampling events were conducted by OPPD personnel in April 2024 and October 2024 as continuation of the semi-annual assessment monitoring program. Samples were collected in general compliance with 40 CFR §257.90(c), which requires groundwater monitoring be conducted throughout the active life and post-closure care period of the CCR unit for each current background and downgradient well in the monitoring network. The number of samples collected for each background and downgradient well during each groundwater sample event, whether the sample was collected during detection or assessment monitoring programs, and the date of each event are summarized in **Table 2**.

Groundwater sampling completed by OPPD personnel was conducted in general accordance with the facility's NDEE Title 132 Groundwater Sampling and Analysis Plan (HDR, 2024) and the Groundwater Monitoring System Certification (HDR, 2019a). Samples were collected from each background and downgradient network well during the April 2024 and October 2024 monitoring events. Field sampling forms from the 2024 sampling events are provided in **Appendix A**. The collected groundwater samples were analyzed by Eurofins Environment Testing North Central, LLC. The laboratory analytical reports are provided in **Appendix B**.

3.2 Groundwater Elevations & Flow Direction

Static groundwater level measurements were recorded at the monitoring wells specified in **Table 1** prior to purging and sampling activities conducted during the groundwater sampling events. Groundwater measurements of both monitoring network wells and groundwater elevation only wells, as defined in the CCR Groundwater Monitoring System Certification (HDR, 2019a), were used to determine groundwater contours. Monitoring well static groundwater elevations are provided in **Table 3**. Groundwater measurements collected during the April 2024 sampling event indicated a flow direction to the south-southeast and an average flow velocity of 0.0080 feet per day (ft/day) to 0.0453 ft/day. Groundwater measurements collected during the October 2024 sampling event indicated a flow direction to the south-southeast and an average flow velocity of 0.00913 ft/day to 0.0517 ft/day. The April 2024 and October 2024 flow velocities are based on a range of hydraulic conductivity at the Site of 6.96 ft/day to 39.4 ft/day (HDR, 2019a). Estimated groundwater flow direction is consistent with historical observations.

3.3 Assessment Monitoring Groundwater Sampling

Groundwater sampling events were conducted by OPPD personnel in April 2024 and October 2024 as continuation of the semi-annual assessment monitoring program in accordance with 40 CFR §257.96(b). As specified in 40 CFR §257.95(b), monitoring network wells should be resampled at least annually for the full Appendix IV constituent list. In accordance with 40 CFR §257.95(d), monitoring network wells should be resampled at least semi-annually for the full Appendix III constituents and those Appendix IV constituents detected in response to 40 CFR §257.95(b). However, to be conservative, all Appendix III and Appendix IV constituents were analyzed for both the April 2024 and October 2024 sampling events. The results of the sampling events conducted in 2024 are presented in **Table 4** (Appendix III constituents) and **Table 5** (Appendix IV constituents).

3.4 Statistical Analysis Results

In the assessment monitoring program, Appendix III and IV constituents are statistically analyzed to evaluate for SSIs above the calculated BTVs, and Appendix IV constituents are statistically analyzed to evaluate for SSLs above the GWPS. Statistical analysis was performed using Sanitas™ Statistical Software in accordance with the methods described in the Groundwater Monitoring Statistical Methods Certification (HDR, 2021b). BTVs are updated every two years in accordance with Chapter 21 of the EPA's Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance (EPA, 2009) or during a monitoring program transition. BTVs and GWPS were last updated following the spring 2024 sampling event. The next update is planned for the spring 2026 sampling event. Statistically derived BTVs for Appendix III and IV constituents for detection monitoring are provided in **Table 6**. The established GWPS for all Appendix IV constituents are provided in **Table 7**. Results of the statistical analysis of designated in-network downgradient monitoring wells from the April 2024 and October 2024 sampling events are provided in **Appendix C**.

For the April 2024 sampling event, results of the analysis indicated two (2) SSIs above background for detection monitoring constituents and six (6) SSIs for assessment monitoring constituents:

- NC2MW-2: Antimony, Calcium, and Sulfate
- NC2MW-6: Lithium
- NC2MW-7: Arsenic, Barium, and Lithium
- NC2MW-8: Barium

One (1) new SSI was detected (sulfate in NC2MW-2). Analysis of the assessment monitoring constituents indicated there were no new SSLs, and there was one continued SSL detected above the GWPS:

- NC2MW-7: Lithium

A subsequent semi-annual sampling event was conducted in October 2024. Results of the analysis indicated one (1) SSI above background for detection monitoring constituents and nine (9) SSIs for assessment monitoring constituents:

- NC2MW-2: Antimony, Calcium, Lithium, and Thallium
- NC2MW-3: Thallium
- NC2MW-6: Lithium
- NC2MW-7: Arsenic, Barium, and Lithium
- NC2MW-8: Barium

Two (2) potential new SSIs were detected (thallium in NC2MW-2 and NC2MW-3) during the October 2024 sampling event. The elevated thallium concentrations identified as potential SSIs in NC2MW-2 and NC2MW-3 appear anomalous and may be indicative of laboratory analysis error. During the fall 2024 semi-annual sampling event, thallium concentrations appear to spike up in multiple groundwater samples including background monitoring well NC2MW-5. Historically, thallium has had concentrations that were relatively low or below laboratory reporting limits. Verification of these SSIs will be conducted during the next semi-annual sampling event.

Analysis of the assessment monitoring constituents indicated there were no new SSLs, and there was one continued SSL detected above the GWPS:

- NC2MW-7: Lithium

3.5 Evaluation of Corrective Measures

For the SSL detected for lithium at NC2MW-7, the NDEE proposed long-term groundwater monitoring and institutional controls (to restrict groundwater use) as remedial actions in a letter dated March 31, 2021. On November 15, 2021, OPPD published a Remedy Selection Report for source control of windblown CCR and long-term performance monitoring (HDR, 2021a). The site will continue to be monitored semi-annually in accordance with EPA regulations in 40 CFR §257.96(b) and the NDEE's proposed remedial action. Previous remedial activities included obtaining approval of minor permit modifications to better control fugitive dust at the facility, implementing a revised fill plan, and applications of a surface binder to inactive areas of the landfill. Initial applications of the surface binder occurred in the summer and fall of 2021. Annual surface binder applications are conducted at the site prior to the winter months. The use of a binder prior to the winter months is to ensure the dust is held in place during times where water usage is not a reasonable option during freezing conditions. The remainder of the year, water can be used to settle dust.

As part of the evaluation of the corrective measures, the upper confidence limit (UCL) of lithium in NC2MW-7 will be compared to the GWPS until the UCL remains below the GWPS for three consecutive years. The UCL for lithium at NC2MW-7 was still above the GWPS during the October 2024 sampling event; therefore, the site will remain in the corrective action monitoring program. According to long-term trend analysis of lithium at NC2MW-7, which incorporates the last 16 sampling events (dating from March 2018 to October 2024), there is a positive slope of 0.001209 milligrams per liter per year [mg/L/year]. The long-term increasing trend is not statistically significant. Based on a short-term trend analysis which incorporates the last eight (8) sampling events (dating from April 2021 to October 2024), there is a positive slope (0.001977

mg/L/year). The short-term increasing trend is not statistically significant. The trend analysis results are summarized in the most recent Title 132: Semi-Annual Groundwater Monitoring Report for the NC2 Ash Disposal Area.

3.6 Other Information Required under 40 CFR §257.90-98

In response to previously detected SSIs for arsenic in 2018 and 2019 under NDEE required monitoring, a Groundwater Assessment Report (GAR) was conducted by HDR Engineering, Inc. (HDR) on behalf of OPPD in 2019 to characterize the alternate sources of arsenic at the NC2 Ash Disposal Area (HDR, 2019b). As part of the GAR, upwind/upgradient and downwind/ downgradient surface and subsurface soil samples were collected near the NC2 Ash Disposal Area. Additionally, groundwater samples from temporary piezometers and monitoring wells along the downgradient side of the NC2 Ash Disposal Area and ash samples from within the NC2 Ash Disposal Area were collected and analyzed. Surface soil samples, subsurface soil samples**,** ash samples**,** leachate samples, and groundwater samples were evaluated to characterize the NC2 Ash Disposal Area and the nature of the surrounding groundwater. The GAR served as an ASD for arsenic at monitoring well NC2MW-7 and was submitted to NDEE on November 6, 2019. NDEE responded in a May 5, 2020, correspondence stating the ASD for arsenic in NC2MW-7 had been accepted and that arsenic was due to naturally occurring arsenic in the soil and not a result of a release from the NC2 Ash Disposal Area.

Similarly, in response to the previously detected SSI for calcium in 2019 under CCR and NDEE required groundwater monitoring, a Site Assessment Report (SAR) was conducted in February and March 2020 in advance of the initiation of assessment monitoring (HDR, 2020a). HDR, on behalf of OPPD, conducted this additional investigation into two Appendix IV constituents (arsenic and lithium) at the NC2 Ash Disposal Area to evaluate and refine the source(s) of inorganic impacts to groundwater downgradient of the NC2 Ash Disposal Area. The information provided in the SAR was based on a combination of field data obtained during the GAR and field data obtained specifically for the SAR. Data evaluated as part of the SAR included: surface and subsurface soil samples, fly and bottom ash samples, limestone samples, leachate pond and leachate sump samples, clarifier sediment disposal area sediment samples, surface water samples, temporary piezometer groundwater samples, and groundwater samples from permanent monitoring wells and two delineation wells installed as part of the GAR.

Following the July 2020 SSLs for arsenic and lithium, both in NC2MW-7, OPPD was required to characterize the extent of the release and initiate an ACM within 90 days of identifying SSLs in accordance with 40 CFR §257.95(g). Following the October 2020 SSL for arsenic in NC2MW-8, a notification of SSL was prepared and placed in the facility's operating record on November 25, 2020, pursuant to 40 CFR §257.95(g) for all SSLs detected. A Nature and Extent Study (NES) was submitted to NDEE on December 17, 2020 (HDR, 2020b), and an ACM Report (HDR, 2020c) was placed in the facility's operating record on December 22, 2020, both of which were developed by implementing site information obtained through the GAR and SAR.

Results of the site investigations and ACM Report were presented at a public meeting with interested and affected parties on August 25, 2021. The public meeting was held online using Webex™. No comments were received during the meeting or submitted in writing. OPPD

published a Remedy Selection Report in November 2021. The selected remedy has been implemented in stages as proposed in the Remedy Selection Report. Draft permit revisions were provided to NDEE during the 2021 reporting period to revise the NDEE Title 132 permit for implementation of the use of a surface binder for dust control as part of the selected remedy. In a letter dated January 14, 2022, the NDEE approved the permit modifications to control fugitive dust. During the 2022 reporting period, a revised fill plan was implemented and applications of a surface binder to inactive areas of the landfill was initiated. During the 2023 and 2024 reporting periods, the revised fill plan continues to be followed, and applications of a surface binder to inactive areas of the landfill were conducted.

No other information is required under 40 CFR §257.90-98 at this time.

4 Key Activities for Upcoming Year

OPPD has selected a remedy for corrective action (HDR, 2021a) and will continue to monitor and evaluate corrective actions. Ongoing remedial activities will occur in 2025 by continuing to implement the revised fill plan to reduce active areas of the landfill and annual applications of a surface binder to inactive areas of the landfill. The Site will continue to be monitored in accordance with the corrective action monitoring program as specified in 40 CFR §257.96(b), and the next semi-annual sampling event is anticipated to occur in April 2025.

5 References

EPA, 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities: Unified Guidance*. Environmental Protection Agency Office of Resource Conservation and Recovery. EPA 530/R-09-007. March 2009.

EPA, 2015. 40 CFR parts 257; *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities*; Final Rule, Federal Register Vol. 80, No. 74. Environmental Protection Agency. April 17, 2015.

HDR, 2019a. *Groundwater Monitoring System Certification.* Nebraska City Station – NC2 Combustion Ash Landfill. Revised June 2019.

HDR, 2019b. *Title 132: Groundwater Assessment Report.* Nebraska City Station – NC2 Combustion Ash Landfill. November 6, 2019.

HDR, 2020a. *Site Assessment Report.* Nebraska City Station – NC2 Combustion Ash Landfill. June 18, 2020.

HDR, 2020b. *Title 132: Nature and Extent Study*. Nebraska City Station – NC2 Combustion Ash Landfill. December 17, 2020.

HDR, 2020c. *Assessment of Corrective Measures Report*. Nebraska City Station – NC2 Combustion Ash Landfill. December 22, 2020.

HDR, 2021a. *Remedy Selection Report.* Nebraska City Station – NC2 Combustion Ash Landfill. November 15, 2021.

HDR, 2021b. *Groundwater Monitoring Statistical Methods Certification.* Nebraska City Station – NC2 Combustion Ash Landfill. Revised December 2021.

HDR, 2024. *Groundwater Sampling and Analysis Plan*. NC2 Ash Disposal Area. Nebraska City, Nebraska. Revised March 2024.

Figures

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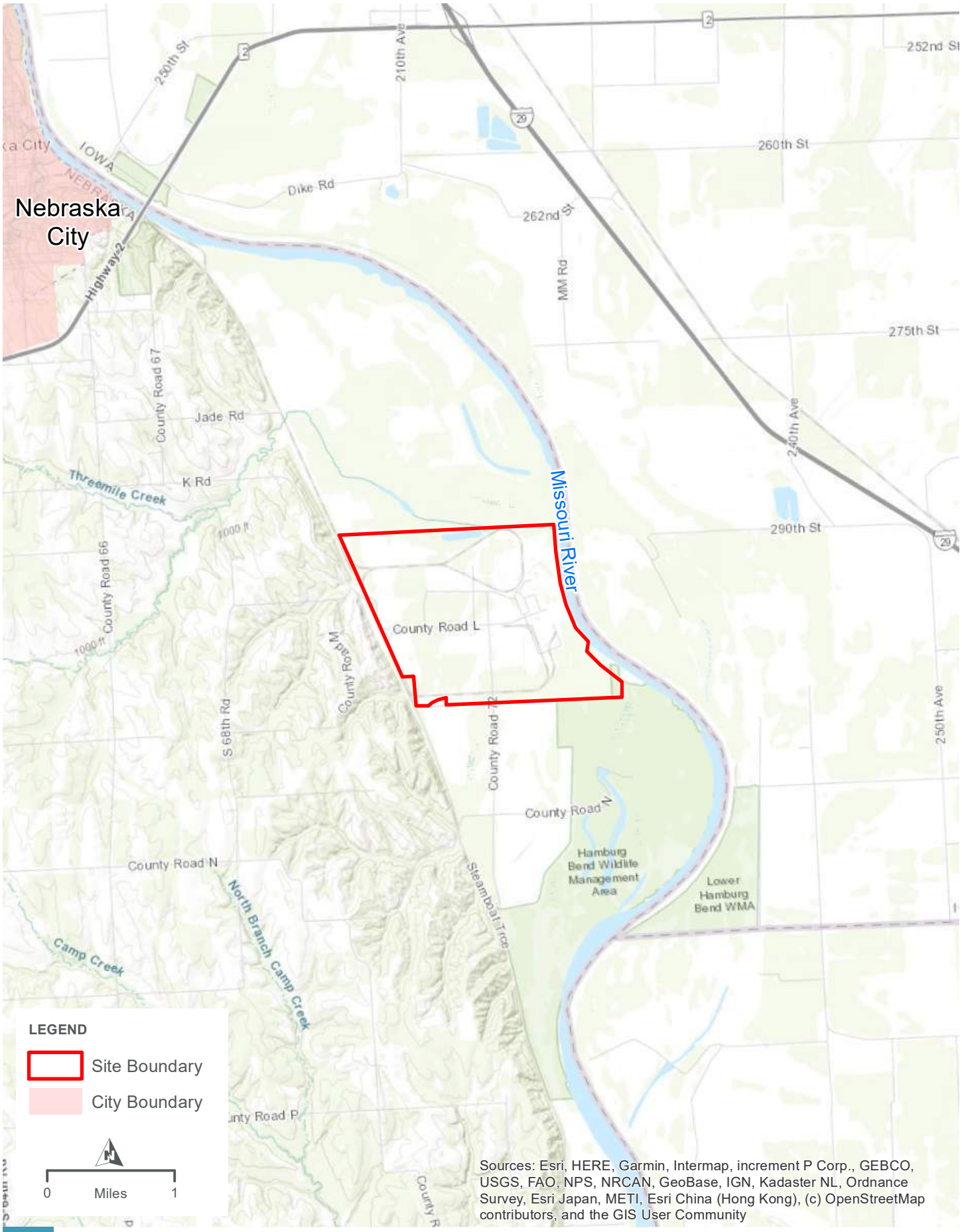

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

SITE LOCATION MAP

OPPD - NEBRASKA CITY STATION

FIGURE 1

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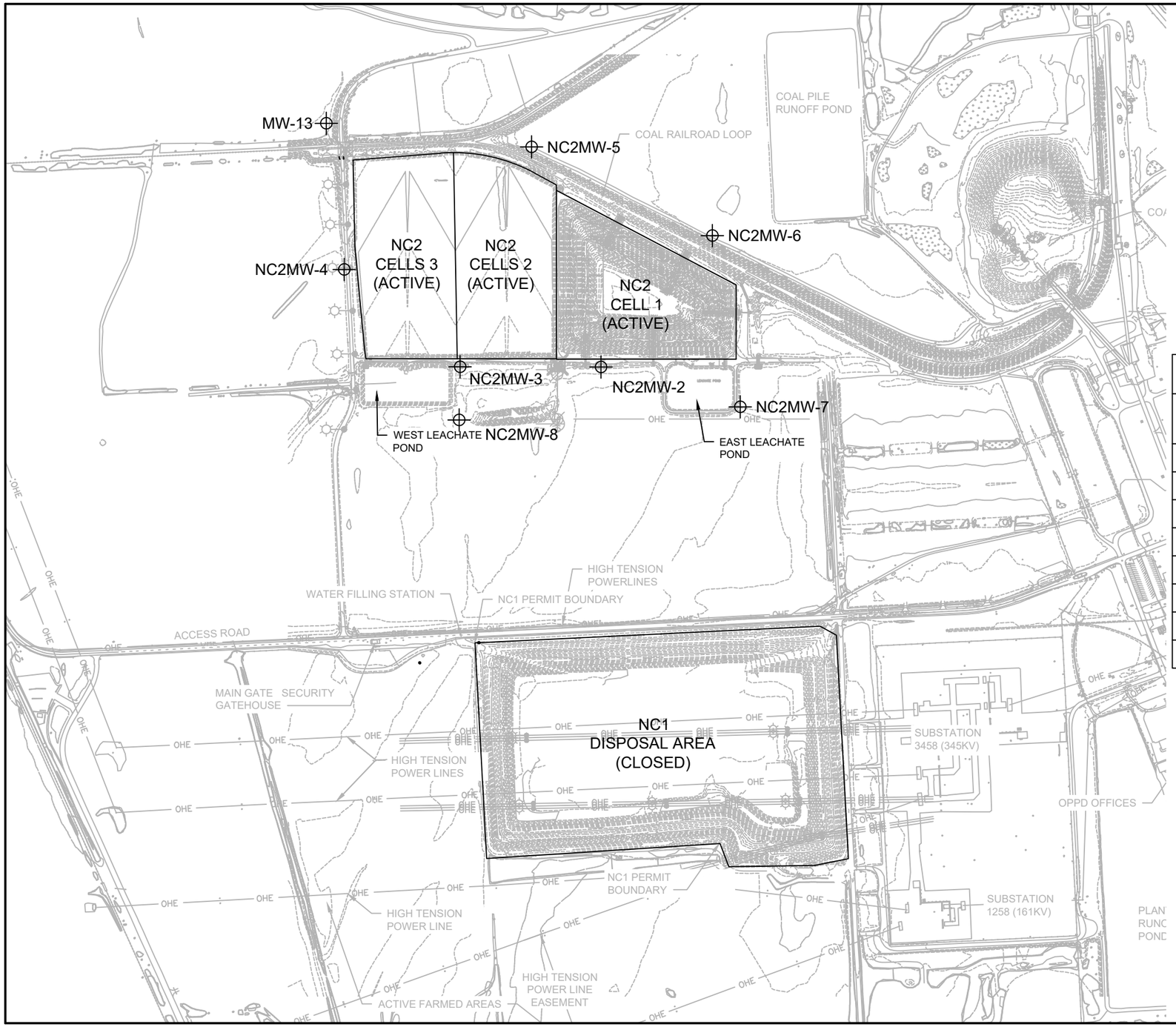

MONITORING WELL NETWORK

WELL ID	NORTHING	EASTING	ELEVATION (TOC)	WELL DEPTH (BGS)	LOCATION WITH RESPECT TO NC2 ASH DISPOSAL AREA
MW-13	318186.64	2808434.68	918.05	13.0	BACKGROUND / UPGRADIENT
NC2MW-2	316884.69	2809902.40	922.55	17.0	DOWNGRADIENT
NC2MW-3	316885.96	2809149.54	919.58	12.0	DOWNGRADIENT
NC2MW-4	317405.90	2808530.80	919.62	14.0	BACKGROUND / UPGRADIENT
NC2MW-5	318060.54	2809531.90	922.76	15.2	BACKGROUND / UPGRADIENT
NC2MW-6	317587.46	2810497.97	919.72	11.0	CROSSGRADIENT
NC2MW-7	316671.78	2810647.12	918.20	21.0	DOWNGRADIENT
NC2MW-8	316601.90	2809145.16	917.97	15.0	DOWNGRADIENT

NOTES:

1. TOC - TOP OF CASING
2. TOP OF CASING ELEVATION DETERMINED BY SURVEY DATA OBTAINED JUNE 2019.
3. BGS - BELOW GROUND SURFACE
4. WELL DEPTH MEASUREMENTS REPRESENT DEPTH BELOW GROUND SURFACE.
5. NORTHING AND EASTING COORDINATES ARE NEBRASKA STATE PLANE WHICH HAVE BEEN TRANSLATED BY THE SURVEYOR.

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OPPD
Omaha Public Power District

HDR

OPPD NEBRASKA CITY ASH LANDFILL
NEBRASKA CITY UNIT 2 - NC2
MONITORING WELL LOCATION MAP

2024 GROUNDWATER MONITORING REPORT

DATE
DEC. 2024

FIGURE
02

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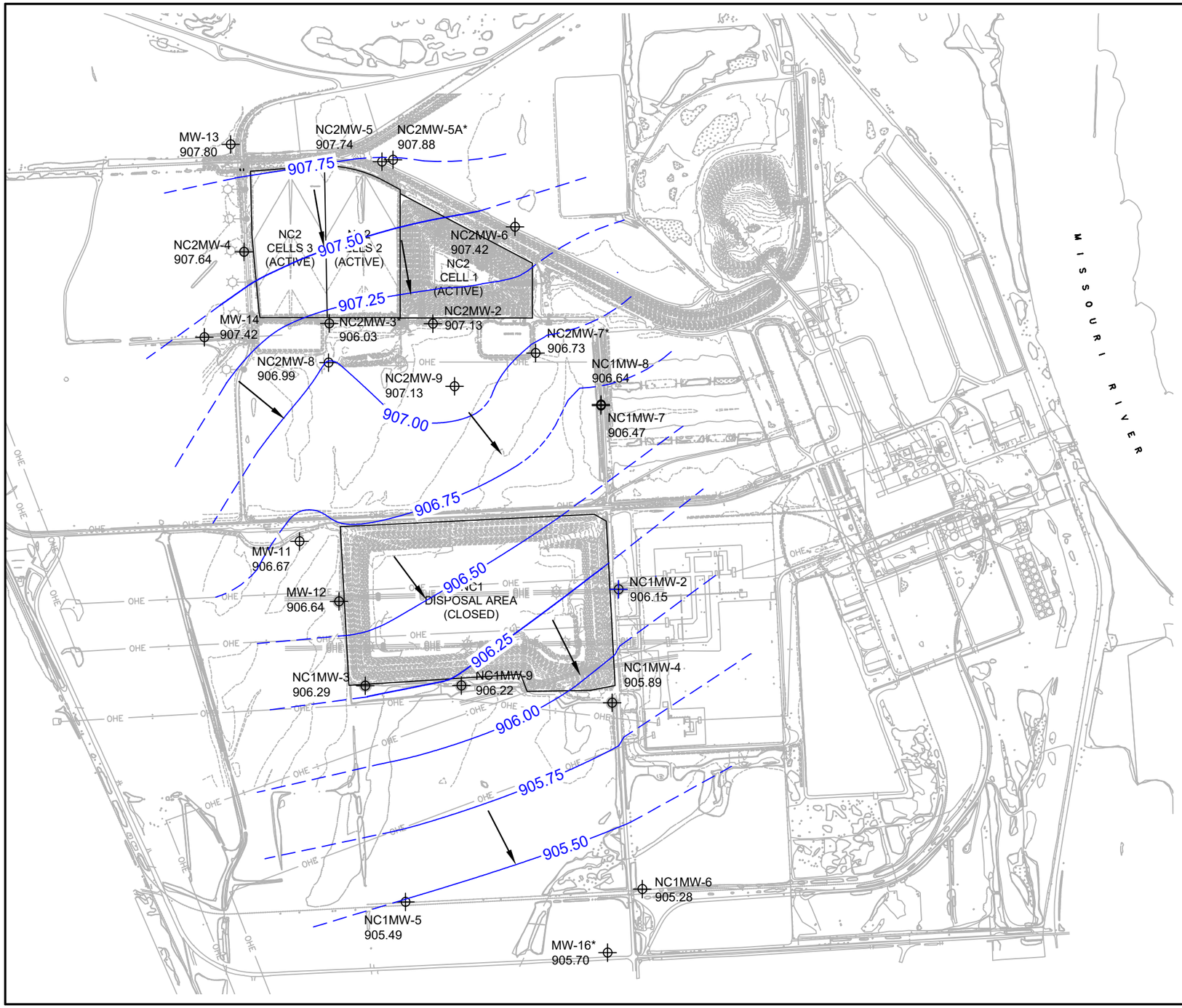

N

800 0 800 1600

SCALE IN FEET

LEGEND:

- MONITORING WELL
- 907.29 — GROUNDWATER ELEVATION
- 907.00 — GROUNDWATER CONTOUR
- INFERRED GROUNDWATER CONTOUR
- INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. MONITORING WELL NC1MW-7 WAS NOT USED IN GENERATION OF CONTOUR MAP DUE TO BEING SCREENED AT A DEEPER INTERVAL.
2. * - SYMBOL INDICATES GROUNDWATER ELEVATION APPEARS TO BE ANOMALOUS. MONITORING WELL WAS NOT USED IN GENERATION OF CONTOUR MAP.

VELOCITY COMPUTATIONS

TRACER VELOCITY = $V_T = \frac{Ki}{n}$

K = HYDRAULIC CONDUCTIVITY (SEE TABLE)

i = GRADIENT = $\frac{1.0\ FT}{2{,}147\ FT}$ = 0.000466FT/FT

n = POROSITY = 0.405

	K	V_T
LOW	6.96 FT/DAY	0.0080 FT/DAY
HIGH	39.4 FT/DAY	0.0453 FT/DAY

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OPPD NEBRASKA CITY ASH LANDFILL GROUNDWATER CONTOUR MAP APRIL 2024

2024 GROUNDWATER MONITORING REPORT

DATE
MAY 2024

FIGURE
03

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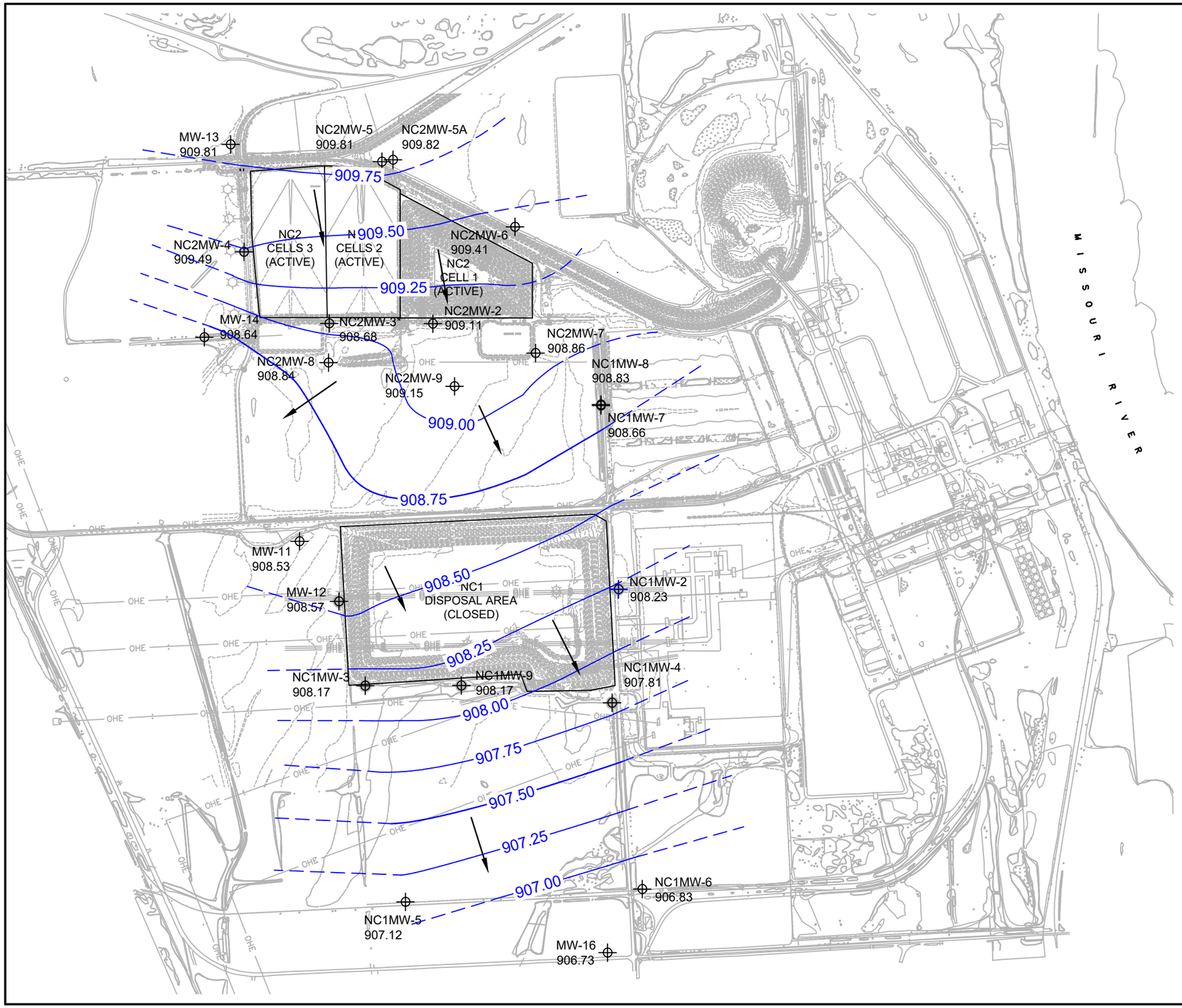

N

800 0 800 1600

SCALE IN FEET

LEGEND:

⊕	MONITORING WELL
907.29	GROUNDWATER ELEVATION
907.00	GROUNDWATER CONTOUR
- - - - - -	INFERRED GROUNDWATER CONTOUR
→	INFERRED GROUNDWATER FLOW DIRECTION

NOTES:

1. MONITORING WELL NC1MW-7 WAS NOT USED IN GENERATION OF CONTOUR MAP DUE TO BEING SCREENED AT A DEEPER INTERVAL.
2. * - SYMBOL INDICATES GROUNDWATER ELEVATION APPEARS TO BE ANOMALOUS. MONITORING WELL WAS NOT USED IN GENERATION OF CONTOUR MAP.

VELOCITY COMPUTATIONS

TRACER VELOCITY = $V_T = \frac{Ki}{n}$

K = HYDRAULIC CONDUCTIVITY (SEE TABLE)

i = GRADIENT = $\frac{1.0\ FT}{1{,}882\ FT}$ = 0.000531FT/FT

n = POROSITY = 0.405

	K	V_T
LOW	6.96 FT/DAY	0.00913 FT/DAY
HIGH	39.4 FT/DAY	0.0517 FT/DAY

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Omaha Public Power District

HDR

OPPD NEBRASKA CITY ASH LANDFILL GROUNDWATER CONTOUR MAP OCTOBER 2024

2024 GROUNDWATER MONITORING REPORT

DATE
NOV 2024

FIGURE
04

C:\pwworking\central01\d4428503\NC 1_2 - Figure 4 - FALL 2024.dwg, Title 132, 11/18/2024 4:11:48 PM, MICWALSH

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Tables

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Table 1 - Groundwater Monitoring System
Omaha Public Power District - NC2 Ash Disposal Area

Monitoring Well ID	Date Installed	Well Depth (feet bgs)[1]	Location w/ respect to NC2 Ash Disposal Area	Ground Surface Elevation (feet AMSL)	Top of Well Casing Elevation (feet AMSL)
CCR Monitoring Network Wells					
NC2MW-2	9/8/2004	15	Downgradient	919.80	922.55
NC2MW-3	9/8/2004	11	Downgradient	913.30	919.58
NC2MW-4	9/8/2004	14	Background/Upgradient	917.07	919.62
NC2MW-5	9/16/2004	13	Background/Upgradient	919.34	922.76
NC2MW-6	9/7/2004	11	Crossgradient	916.30	919.72
NC2MW-7	11/6/2013	21	Downgradient	915.11	918.20
NC2MW-8	7/9/2018	15	Downgradient	915.20	917.97
MW-13	1/26/2016	13	Background/Upgradient	915.97	918.05
Water Level Only Wells					
NC1MW-2	3/14/1995	17.8	Downgradient	917.23	919.42
NC1MW-3	3/13/1995	19.5	Downgradient	917.10	919.85
NC1MW-4	3/13/1995	20.3	Downgradient	916.79	919.63
NC1MW-5	3/17/1995	16.6	Downgradient	917.61	920.70
NC1MW-6	3/13/1995	16.5	Downgradient	914.01	916.67
NC1MW-7	1/20/1999	40	Downgradient	917.12	919.20
NC1MW-8	1/21/1999	20	Downgradient	917.19	919.68
NC1MW-9	1/21/1999	20.0	Downgradient	917.52	920.09
NC2MW-5A	9/16/2019	17.2	Upgradient	919.13	922.05
NC2MW-9	9/17/2019	18.3	Downgradient	917.49	920.35
MW-11	1/16/2004	20	Downgradient	915.72	918.44
MW-12	3/26/2004	18	Downgradient	917.91	920.36
MW-14	7/12/2018	18	Crossgradient	917.99	920.99

Notes:

1. Depth from ground surface to bottom of installed well (screen depth). Actual boring depth may be deeper.

bgs - below ground surface

AMSL - above mean sea level

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Table 2 - Groundwater Sampling Event Summary
Omaha Public Power District - NC2 Ash Disposal Area

Monitoring Well ID	# of Initial Background Samples	Initial Background Sample Dates	# of Detection Monitoring Samples [1], [6]	Detection Monitoring Sample Dates	# of Assessment Monitoring Samples	Assessment Monitoring Sample Dates
Current Background Monitoring Wells						
NC2MW-4 [5]	8	3/14/2016, 6/3/2016, 8/31/2016, 11/17/2016, 2/15/2017, 4/24/2017, 6/15/2017, 7/12/2017	7	11/9/2017, 3/12/2018, 6/6/2018, 10/3/2018, 4/8/2019, 10/15/2019, 1/30/2020	11	4/27/2020, 7/14/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
NC2MW-5 [7]	8	3/14/2016, 6/3/2016, 8/31/2016, 11/17/2016, 2/15/2017, 4/24/2017, 6/15/2017, 7/12/2017	7	11/9/2017, 3/12/2018, 6/6/2018, 10/3/2018, 4/8/2019, 10/15/2019, 1/30/2020	10	4/27/2020, 7/14/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 10/10/2023, 4/15/2024, 10/7/2024
MW-13 [2], [3], [5]	8	3/14/2016, 6/3/2016, 8/31/2016, 11/17/2016, 2/15/2017, 4/24/2017, 6/15/2017, 7/12/2017	5	11/9/2017, 3/12/2018, 6/6/2018, 10/3/2018, 1/30/2020	11	4/27/2020, 7/14/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
Downgradient Monitoring Wells						
NC2MW-2	8	3/14/2016, 6/3/2016, 8/31/2016, 11/17/2016, 2/15/2017, 4/24/2017, 6/15/2017, 7/12/2017	8	11/9/2017, 3/12/2018, 6/6/2018, 10/3/2018, 4/8/2019, 9/23/2019, 10/15/2019, 1/31/2020	11	4/27/2020, 7/14/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
NC2MW-3 [2]	8	3/14/2016, 6/3/2016, 8/31/2016, 11/17/2016, 2/15/2017, 4/24/2017, 6/15/2017, 7/12/2017	7	11/9/2017, 3/12/2018, 6/6/2018, 10/3/2018, 9/23/2019, 10/15/2019, 1/31/2020	11	4/27/2020, 7/14/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/11/2023, 10/10/2023, 4/15/2024, 10/7/2024
NC2MW-6 [7]	8	3/14/2016, 6/3/2016, 8/31/2016, 11/17/2016, 2/15/2017, 4/24/2017, 6/15/2017, 7/12/2017	7	11/9/2017, 3/12/2018, 6/6/2018, 10/3/2018, 4/8/2019, 10/15/2019, 1/31/2020	10	4/27/2020, 7/14/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 10/10/2023, 4/15/2024, 10/7/2024
NC2MW-7	8	3/14/2016, 6/3/2016, 8/31/2016, 11/17/2016, 2/15/2017, 4/24/2017, 6/15/2017, 7/12/2017	8	11/9/2017, 3/12/2018, 6/6/2018, 10/3/2018, 4/8/2019, 9/23/2019, 10/15/2019, 2/3/2020	11	4/27/2020, 7/15/2020, 10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024
NC2MW-8 [2]	8[4]	10/3/2018, 1/15/2019, 3/5/2019, 9/23/2019, 10/16/2019, 1/31/2020, 4/27/2020, 7/14/2020	0	N/A	9	10/5/2020, 4/12/2021, 10/4/2021, 4/4/2022, 10/3/2022, 4/10/2023, 10/10/2023, 4/15/2024, 10/7/2024

[1] The number of detection monitoring samples includes the 3/12/2018 event, which occurred as part of an Alternative Source Demonstration.

[2] MW-13, NC2MW-3, and NC2MW-8 were submerged under water during April 2019 sampling event and were not sampled.

[3] MW-13 was surrounded by ponding water during October 2019 sampling event and was not sampled.

[4] NC2MW-8 was installed July 9, 2018 and was added to the Groundwater Monitoring System Certification in June 2019. The 9/23/2019 sampling event was part of an Alternative Source Demonstration for the Title 132 Groundwater Assessment Report.

[5] Background wells have been sampled on more dates than are listed for the initial background and detection monitoring sample dates. This is due to two background wells (NC2MW-4 and MW-13) being sampled for both NC1 and NC2 Ash Disposal Areas. Sampling dates for the NC1 Ash Disposal Area have not been included in the sampling event summary, but are included within the dataset used for statistical analysis.

[6] Four wells, NC2MW-2, NC2MW-3, NC2MW-7, and NC2MW-8, were sampled during the 9/23/2019 fieldwork as part of an Alternative Source Demonstration for the Title 132 Groundwater Assessment Report .

[7] NC2MW-5 and NC2MW-6 were either dry or had insufficient water volume during the April 2023 sampling event and were not sampled.

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Table 3 - Groundwater Elevations
Omaha Public Power District - NC2 Ash Disposal Area

	CCR Monitoring Network Wells															
	NC2MW-4		NC2MW-5		MW-13		NC2MW-2		NC2MW-3		NC2MW-6		NC2MW-7		NC2MW-8	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	919.62		922.76		918.05		922.55		919.58		919.72		918.20		917.97	
Date	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)	Measured Depth to Water (ft)	GW Elevation (AMSL)
3/14/2016	6.91	912.71	6.98	915.78	4.75	913.30	10.80	911.75	4.05	915.53	7.95	911.77	7.04	911.16		
6/3/2016	5.62	914.00	7.67	915.09	3.51	914.54	8.96	913.59	2.55	917.03	6.02	913.70	4.80	913.40		
8/31/2016	5.05	914.57	5.30	917.46	2.85	915.20	8.91	913.64	2.31	917.27	5.95	913.77	5.40	912.80		
11/17/2016	6.80	912.82	9.25	913.51	4.40	913.65	10.90	911.65	4.10	915.48	8.10	911.62	7.20	911.00		
2/15/2017	7.50	912.12	10.20	912.56	5.21	912.84	11.70	910.85	4.95	914.63	9.00	910.72	8.15	910.05		
4/24/2017	6.11	913.51	8.48	914.28	4.00	914.05	9.85	912.70	3.21	916.37	7.00	912.72	5.96	912.24	*Well Installed 7/9/2018*	
6/15/2017	6.75	912.87	9.82	912.94	4.70	913.35	10.30	912.25	3.42	916.16	7.35	912.37	6.35	911.85		
7/12/2017	7.11	912.51	10.15	912.61	5.02	913.03	10.76	911.79	4.25	915.33	7.90	911.82	6.80	911.40		
11/9/2017	12.20	907.42	14.20	908.56	8.25	909.80	15.10	907.45	12.10	907.48	11.20	908.52	10.50	907.70		
3/12/2018	10.18	909.44	12.95	909.81	8.10	909.95	13.90	908.65	7.15	912.43	10.88	908.84	10.00	908.20		
6/6/2018	6.80	912.82	9.70	913.06	4.65	913.40	10.35	912.20	3.70	915.88	7.25	912.47	6.35	911.85		
10/3/2018	4.14	915.48	4.95	917.81	1.63	916.42	7.39	915.16	0.80	918.78	4.30	915.42	3.20	915.00	3.15	914.82
3/5/2019	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	N.M.	6.67	911.30
4/8/2019 [1]	3.53	916.09	4.56	918.20	N.M.	N.M.	6.70	915.85	N.M.	N.M.	4.18	915.54	2.74	915.46	N.M.	N.M.
10/14/2019 [2]	3.47	916.15	4.48	918.28	N.M.	N.M.	6.34	916.21	0.21	919.37	3.75	915.97	2.27	915.93	2.38	915.59
1/30/2020	5.44	914.18	5.81	916.95	3.39	914.66	9.09	913.46	2.56	917.02	6.11	913.61	5.37	912.83	4.75	913.22
4/20/2020	5.24	914.38	6.37	916.39	2.94	915.11	8.83	913.72	2.36	917.22	5.97	913.75	4.99	913.21	4.59	913.38
7/14/2020	7.19	912.43	10.02	912.74	5.23	912.82	10.44	912.11	7.89	911.69	7.45	912.27	6.32	911.88	6.28	911.69
10/5/2020	9.65	909.97	12.63	910.13	7.76	910.29	12.92	909.63	10.34	909.24	9.90	909.82	8.81	909.39	8.68	909.29
4/6/2021	6.76	912.86	5.87	916.89	4.73	913.32	10.57	911.98	7.72	911.86	7.62	912.10	6.76	911.44	6.03	911.94
10/1/2021	10.17	909.45	13.15	909.61	8.32	908.08	13.48	909.07	11.55	908.03	10.38	909.34	9.37	908.83	9.16	908.81
4/1/2022	10.27	909.35	6.29	916.47	8.19	909.86	14.14	908.41	12.00	907.58	11.21	908.51	10.45	907.75	9.61	908.36
10/1/2022	11.82	907.80	14.90	907.86	10.04	908.01	14.60	907.95	12.72	906.86	11.84	907.88	10.79	907.41	11.66	906.31
4/6/2023 [3]	12.43	907.19	N.M.	N.M.	9.97	908.08	15.95	906.60	13.79	905.79	14.02	905.70	11.94	906.26	11.49	906.48
10/10/2023 [4,5]	11.20	908.42	N.M.	N.M.	9.48	908.57	14.41	908.14	11.87	907.71	11.35	908.37	10.32	907.88	10.04	907.93
4/11/2024	11.98	907.64	15.02	907.74	10.25	907.80	15.42	907.13	13.55	906.03	12.30	907.42	11.47	906.73	10.98	906.99
10/4/2024	10.13	909.49	12.95	909.81	8.24	909.81	13.44	909.11	10.90	908.68	10.31	909.41	9.34	908.86	9.13	908.84

TOC = Top of PVC well casing

N.M. = not measured

AMSL = above mean sea level

[1] MW-13, NC2MW-3, and NC2MW-8 were surrounded by ponding water during April 2019 sampling event and were not measured.

[2] MW-13 was surrounded by ponding water during October 2019 sampling event and was not measured.

[3] NC2MW-5 was dry during the April 2023 sampling event.

[4] NC2MW-5 water level was below the top of pump during October 2023 sampling event.

[5] NC2MW-9 was dry during the October 2023 sampling event.

Table 3 - Groundwater Elevations

Omaha Public Power District - NC2 Ash Disposal Area

	Water Level Only Wells															
	NC1MW-2		NC1MW-3		NC1MW-4		NC1MW-5		NC1MW-6		NC1MW-7		NC1MW-8		NC1MW-9	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	919.42		919.85		919.63		920.70		916.67		919.20		919.68		920.09	
Date	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)
3/9/2016	8.90	910.52	8.95	910.90	9.50	910.13	10.82	909.88	7.55	909.12	8.25	910.95	8.60	911.08	9.30	910.79
6/7/2016	7.04	912.38	7.75	912.10	7.41	912.22	9.67	911.03	6.31	910.36	6.43	912.77	6.80	912.88	7.88	912.21
10/3/2016	8.45	910.97	8.35	911.50	9.10	910.53	12.99	907.71	6.86	909.81	7.94	911.26	8.53	911.15	8.76	911.33
11/18/2016	9.30	910.12	9.36	910.49	10.10	909.53	11.25	909.45	8.20	908.47	8.72	910.48	9.10	910.58	7.75	912.34
2/14/2017	10.10	909.32	9.91	909.94	10.85	908.78	11.70	909.00	8.80	907.87	9.60	909.60	10.00	909.68	10.41	909.68
4/25/2017	8.10	911.32	8.25	911.60	8.84	910.79	10.30	910.40	7.02	909.65	7.41	911.79	7.75	911.93	8.65	911.44
6/20/2017	7.60	911.82	7.95	911.90	8.20	911.43	10.72	909.98	7.42	909.25	7.85	911.35	8.04	911.64	8.15	911.94
7/13/2017	8.40	911.02	8.75	911.10	9.10	910.53	10.50	910.20	8.10	908.57	8.32	910.88	8.89	910.79	9.10	910.99
11/8/2017	11.55	907.87	11.90	907.95	11.60	908.03	10.90	909.80	8.70	907.97	9.05	910.15	9.18	910.50	12.10	907.99
3/13/2018	11.50	907.92	11.85	908.00	12.16	907.47	NM	NM	NM	NM	NM	NM	NM	NM	12.22	907.87
6/6/2018	5.30	914.12	7.15	912.70	7.10	912.53	NM	NM	NM	NM	NM	NM	NM	NM	8.90	911.19
10/4/2018	5.78	913.64	6.60	913.25	6.66	912.97	8.85	911.85	5.41	911.26	4.48	914.72	5.14	914.54	6.87	913.22
1/15/2019	NM	NM	NM	NM	NM	NM	10.06	910.64	6.56	910.11	NM	NM	NM	NM	NM	NM
3/5/2019	NM	NM	NM	NM	NM	NM	NM	NM	8.08	908.59	NM	NM	NM	NM	NM	NM
4/8/2019 [1]	4.17	915.25	4.69	915.16	4.58	915.05	NM	NM	NM	NM	3.68	915.52	3.98	915.70	4.85	915.24
10/14/2019 [2]	3.64	915.78	4.56	915.29	4.33	915.30	NM	NM	NM	NM	3.01	916.19	3.33	916.35	4.65	915.44
4/20/2020	6.82	912.60	7.42	912.43	7.60	912.03	9.70	911.00	6.16	907.85	6.05	913.15	6.36	913.32	7.69	912.40
10/5/2020	10.52	908.90	11.13	908.72	11.17	908.46	12.90	907.80	9.11	907.56	10.06	909.14	10.36	909.32	11.35	908.74
4/6/2021	8.91	910.51	8.90	910.95	9.53	910.10	10.95	909.75	7.58	909.09	8.20	911.00	8.54	911.14	9.34	910.75
10/1/2021	11.27	908.15	11.74	908.11	11.84	907.79	13.54	907.16	9.66	907.01	10.69	908.51	11.02	908.66	12.00	908.09
4/1/2022	12.52	906.90	12.22	907.63	13.01	906.62	14.02	906.68	10.72	905.95	11.99	907.21	12.29	907.39	12.74	907.35
10/1/2022	12.62	906.80	13.09	906.76	13.12	906.51	14.82	905.88	11.05	905.62	11.91	907.29	12.23	907.45	13.28	906.81
4/6/2023 [3]	13.81	905.61	13.94	905.91	14.25	905.38	15.61	905.09	11.87	904.80	13.22	905.98	13.57	906.11	14.29	905.80
10/10/2023 [4,5]	12.12	907.30	12.56	907.29	12.57	907.06	14.27	906.43	10.33	906.34	11.51	907.69	11.83	907.85	12.76	907.33
4/11/2024	13.27	906.15	13.56	906.29	13.74	905.89	15.21	905.49	11.39	905.28	12.73	906.47	13.04	906.64	13.87	906.22
10/4/2024	11.19	908.23	11.68	908.17	11.82	907.81	13.58	907.12	9.84	906.83	10.54	908.66	10.85	908.83	11.92	908.17

Notes:

TOC = Top of PVC well casing

N.M. = not measured

AMSL = above mean sea level

[1] MW-13, NC2MW-3, and NC2MW-8 were surrounded by ponding water during April 2019 sampling event and were not measured.

[2] MW-13 was surrounded by ponding water during October 2019 sampling event and was not measured.

[3] NC2MW-5 was dry during the April 2023 sampling event.

[4] NC2MW-5 water level was below the top of pump during October 2023 sampling event.

[5] NC2MW-9 was dry during the October 2023 sampling event.

Table 3 - Groundwater Elevations

Omaha Public Power District - NC2 Ash Disposal Area

	Water Level Only Wells									
	NC2MW-5A		NC2MW-9		MW-11		MW-12		MW-14	
	TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation		TOC Elevation	
	922.05		920.35		918.44		920.36		920.99	
Date	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)	Measured Depth to Water (ft.)	GW Elevation (AMSL)
3/9/2016					6.90	911.54	9.00	911.36		
6/7/2016					5.85	912.59	7.80	912.56		
10/3/2016					6.34	912.10	8.40	911.96		
11/18/2016					7.37	911.07	9.35	911.01		
2/14/2017					7.95	910.49	9.95	910.41		
4/25/2017					6.24	912.20	8.20	912.16	*Well installed 7/12/2018*	
6/20/2017					7.85	910.59	8.40	911.96		
7/13/2017	*Well Installed 9/16/2019*		*Well Installed 9/17/2019*		6.25	912.19	8.52	911.84		
11/8/2017					10.95	907.49	12.55	907.81		
3/13/2018					9.85	908.59	NM	NM		
6/6/2018					6.80	911.64	NM	NM		
10/4/2018					4.45	913.99	6.55	913.81	7.35	913.64
1/15/2019					NM	NM	NM	NM	8.15	912.84
3/5/2019					NM	NM	NM	NM	8.75	912.24
4/8/2019 [1]					3.04	915.40	4.89	915.47	5.73	915.26
10/14/2019 [2]	4.38	917.67	4.19	916.16	2.90	915.54	4.77	915.59	5.75	915.24
4/20/2020	7.49	914.56	6.76	913.59	5.48	912.96	7.41	912.95	7.59	913.40
10/5/2020	11.88	910.17	10.81	909.54	9.37	909.07	11.29	909.07	11.47	909.52
4/6/2021	8.70	913.35	8.56	911.79	7.01	911.43	8.97	911.39	8.51	912.48
10/1/2021	12.39	909.66	11.42	908.93	9.88	908.56	11.86	908.50	11.98	909.01
4/1/2022	11.57	910.48	12.09	908.26	10.42	908.02	12.35	908.01	11.74	909.25
10/1/2022	14.20	907.85	12.77	907.58	11.31	907.13	13.24	907.12	13.87	907.12
4/6/2023 [3]	14.67	907.38	13.80	906.55	12.20	906.24	14.13	906.23	14.01	906.98
10/10/2023 [4,5]	13.35	908.70	12.33	908.02	10.83	907.61	12.64	907.72	13.30	907.69
4/11/2024	14.17	907.88	13.22	907.13	11.77	906.67	13.72	906.64	13.57	907.42
10/4/2024	12.23	909.82	11.20	909.15	9.91	908.53	11.79	908.57	12.35	908.64

Notes:

TOC =Top of PVC well casing

N.M. = not measured

AMSL = above mean sea level

[1] MW-13, NC2MW-3, and NC2MW-8 were surrounded by ponding water during April 2019 sampling event and were not measured.

[2] MW-13 was surrounded by ponding water during October 2019 sampling event and was not measured.

[3] NC2MW-5 was dry during the April 2023 sampling event.

[4] NC2MW-5 water level was below the top of pump during October 2023 sampling event.

[5] NC2MW-9 was dry during the October 2023 sampling event.

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Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
Constituent		Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
Reporting Unit		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
NC2MW-4	3/9/2016	<0.2	131	<5	<0.5	6.94	46.2	546
	3/14/2016	<0.2	126	6.27	0.213	6.84	48.3	536
	6/3/2016	<0.2	130	<5	<0.5	6.90	46.8	668
	6/7/2016	<0.2	129	<5	<0.5	6.95	45.6	660
	8/31/2016	<0.2	91.1	7.13	0.646	7.20	29.7	574
	11/17/2016	<0.2	130	<5	1.28	7.19	34.0	548
	11/18/2016	<0.2	132	<5	1.10	7.30	33.6	574
	2/14/2017	<0.2	148	<5	<0.5	7.72	39.3	544
	2/15/2017	<0.2	142	10.8	2.43	7.63	39.7	526
	4/24/2017	<0.2	126	<5	1.08	7.08	38.6	574
	4/25/2017	<0.2	122	<5	<0.5	7.28	38.3	594
	6/15/2017	<0.2	122	<5	<0.5	7.09	32.2	552
	6/20/2017	<0.2	119	<5	<0.5	7.13	33.1	558
	7/12/2017	<0.2	104	<5	<0.5	7.88	32.7	580
	7/13/2017	<0.2	112	<5	<0.5	7.98	32.7	664
	11/8/2017	<0.2	133	<5	<0.5	7.15	43.50	556.0
	11/9/2017	<0.2	134	<5	<0.5	7.18	42.8	568
	3/12/2018	<0.2	141	<5	<0.5	6.32 / 7.28 [1]	42.6	562
	6/6/2018	<0.2	140	<5	<0.5	7.15	44.1	542
	10/3/2018	<0.2	117	<5	<0.5	6.81	42.4	520
	4/8/2019	<0.2	137	<5	<0.5	6.71	40.9	560
	10/15/2019	<0.2	142	5.38	<0.5	6.57	35.0	528
	1/30/2020	0.115J	142	<5	<0.5	6.88	44.5	544
	4/20/2020	<0.1	127	5.05	0.421J	6.54	51.9	526
	4/27/2020	<0.0730	134	5.37	0.315J	6.61	52.6	550
	7/14/2020	0.113	129	4.38J	<0.23	6.53	59.9	454
	10/5/2020	0.0996J	154	5.60	<0.23	6.81	46.1	608
	4/12/2021	0.0838J	103	4.93J	0.311J	6.27	61.6	448
	10/4/2021	0.119	128	4.86J	<0.275	6.93	62.6	486
	4/4/2022	0.126	128	3.29J	<0.220	6.02 / 7.3^	60.4	444
	10/4/2022	0.160	118	5.30	<0.220	7.08	37.4	442
	4/10/2023	0.223	125	5.76	<0.375	6.96	49.0	616
	10/10/2023	0.126	119	4.22J	<0.375	6.12	44.8	430
	4/15/2024	0.0951J	143	5.00	<0.375	6.32	51.7	468
	10/7/2024	0.158	133	5.55	0.511J	6.90	52.3	470
NC2MW-5	3/14/2016	3.73	210	51.0	<0.5	7.12	611.0	1310
	6/3/2016	3.98	217	36.6	<0.5	7.01	590.0	1390
	8/31/2016	4.08	159	21.5	<0.5	7.11	455.0	1280
	11/17/2016	4.27	228	21.6	1.89	7.54	414.0	1170
	2/15/2017	2.94	217	13.3	0.59	7.30	531.0	1210
	4/24/2017	2.85	183	12.5	1.25	7.55	331.0	1060
	6/15/2017	3.82	190	10.6	<0.5	7.17	243.0	1090
	7/12/2017	4.63	191	7.93	<0.5	7.45	369.0	1190
	11/9/2017	2.91	168	13.2	<0.5	7.20	404.0	1260
	3/12/2018	2.00	160	34.2	<0.5	6.90 / 7.56 [1]	318.0	826
	6/6/2018	3.81	198	14.0	<0.5	7.02	353.0	1060
	10/3/2018	4.01	227	8.65	<0.5	7.00	503	1230
	4/8/2019	3.72	189	5.42	0.634	7.15	382	1030
	10/15/2019	3.66	195	9.2	<0.5	7.00	322	924
	1/30/2020	2.65	172	8.61	<0.5	7.23	297	692
	4/27/2020	3.31	174	6.39	0.323J	6.84	381	946
	7/14/2020	4.26	216	9.02	<0.23	6.83	324	1020
	10/5/2020	4.27	221	10.6	<0.23	6.96	339	1040
	4/12/2021	2.24	114	9.45	0.356J	6.60	203	606
	10/4/2021	2.86	168	9.28	<0.275	7.19	282	826
	4/4/2022	2.31	167	9.57	<0.220	7.37 / 7.5^	336	802
	10/4/2022	3.81	169	7.59	<0.220	7.30	202	832
	4/10/2023	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]
	10/10/2023	3.27	186	14.4	<0.375	6.38	246	874
	4/15/2024	3.00	198	16.5	<0.375	6.45	290	934
	10/7/2024	5.69	327	25.2	<0.375	6.95	656	1570

Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
	Constituent	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
MW-13	3/9/2016	<0.2	96.3	11.8	<0.5	7.20	44.8	408
	3/14/2016	<0.2	90.6	11.4	<0.5	6.97	47.7	438
	6/3/2016	<0.2	87.9	12.0	<0.5	7.11	37.6	360
	6/7/2016	<0.2	87.1	11.7	<0.5	7.14	39.3	484
	8/31/2016	<0.2	66.6	11.1	<0.5	7.71	31.3	414
	11/17/2016	<0.2	84.2	9.33	0.803	7.79	34.7	430
	11/18/2016	<0.2	86.2	9.65	0.647	7.14	34.4	410
	2/14/2017	<0.2	106	20.7	3.64	7.29	39.9	472
	2/15/2017	<0.2	94.9	11.2	<0.5	7.21	40.9	448
	4/24/2017	<0.2	94.1	12.0	0.79	7.27	39.5	520
	4/25/2017	<0.2	93.5	12.1	0.80	7.36	38.9	430
	6/15/2017	<0.2	91.1	12.4	<0.5	7.28	34.2	454
	6/20/2017	<0.2	88.6	12.7	0.51	7.17	35.6	456
	7/12/2017	<0.2	95.8	16.8	<0.5	8.10	42.0	676
	7/13/2017	<0.2	94.1	12.5	<0.5	8.09	39.8	592
	11/8/2017	<0.2	90.2	12.7	0.608	7.00	37.4	498
	11/9/2017	<0.2	95.2	12.4	0.55	7.12	36.4	488
	3/12/2018	<0.2	99.8	12.9	<0.5	6.45 / 7.51 [1]	37.0	412
	6/6/2018	0.203	102	12.5	<0.5	6.84	71.0	504
	10/3/2018	<0.2	87.3	14.1	0.738	6.88	33.6	410
	4/8/2019	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]
	10/15/2019	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]
	1/30/2020	0.121J	93.7	17.2	<0.5	6.87	44.5	464
	4/20/2020	0.133J	120	17.3	0.399J	6.96	371	742
	4/27/2020	0.134	102	17.2	0.383J	6.93	271	622
	7/14/2020	0.134	103	7.22	0.267J	6.84	299	566
	10/5/2020	0.0955J	118	12.8	<0.23	$6.90	46.2	508
	4/12/2021	0.0653J	66.9	5.50	0.441J	6.58	101	350
	10/4/2021	0.105	126	11.5	<0.275	6.99	47.4	510
	4/4/2022	0.0931J	130	10.7	<0.220	6.15 / 7.2^	48.8	470
	10/3/2022	0.113	112	9.85	<0.220	6.90	13.3	470
	4/10/2023	0.136	120	12.2	<0.375	6.95	31.6	736
	10/10/2023	0.0986J	141	11.4	1.00	6.65	7.56	544
	4/15/2024	0.0852J	138	12.5	<0.375	7.02	77.1	524
	10/7/2024	0.114	137	12.2	<0.375	6.96	59.3	534
NC2MW-2	3/14/2016	<0.2	277	<5	0.371	6.80	388.0	1120
	6/3/2016	0.301	196	<5	<0.5	6.79	336.0	972
	8/31/2016	0.511	130	<5	<0.5	7.04	151.0	696
	11/17/2016	0.302	236	<5	<0.5	7.23	298.0	1030
	2/15/2017	0.219	269	13.2	2.51	7.28	290.0	1070
	4/24/2017	0.264	158	5.40	1.38	7.21	135.0	652
	6/15/2017	0.304	165	<5	<0.5	7.04	139.0	780
	7/12/2017	0.325	127	<5	<0.5	7.03	73.0	592
	11/9/2017	0.25	131	<5	<0.5	7.19	130.0	662
	3/12/2018	<0.2	176	5.08	<0.5	6.26 / 6.96 [1]	258.0	656
	6/6/2018	0.353	220	15.7	<0.5	6.45 / 6.71 [2]	281.0	1180
	10/3/2018	0.438	167	<5	<0.5	6.86	164	668
	4/8/2019	0.270	227	11.8	<0.5	6.68	290	978
	9/23/2019	0.879	151	9.73	0.546	N.S.	238	654
	10/15/2019	0.513	241	10.7	<0.5	6.54	314	972
	1/31/2020	0.322	258	9.78	<0.5	6.39	312	1090
	4/27/2020	0.265	252	9.64	0.256J	6.49	350	1140
	7/14/2020	0.291	261	7.93	<0.23	6.67	319	1070
	10/5/2020	0.289	268	7.67	<0.23	6.70	324	1050
	4/12/2021	0.371	235	24.7	0.392J	6.34	458	1040
	10/4/2021	0.668	183	11.6	<0.275	6.91	266	726
	4/4/2022	0.456	231	18.1	<0.220	4.18 / 6.7^	381	934
	10/3/2022	0.559	241	11.3	0.330J	7.03	319	1030
	4/10/2023	0.496	257	19.5	0.442J	6.96	404	1070
	10/10/2023	1.04	222	9.49	<0.375	6.59	374	928
	4/15/2024	0.602	328	35.3	<0.375	6.44	719	1350
	10/7/2024	0.826	289	21.5	0.603J	6.62	474	1170

Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
	Constituent	Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
	Reporting Unit	mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
NC2MW-3	3/14/2016	<0.2	85.3	<5	0.168	7.05	21.0	334
	6/3/2016	<0.2	121	<5	<0.5	7.14	19.6	500
	8/31/2016	<0.2	51.3	<5	<0.5	7.18	7.35	296
	11/17/2016	<0.2	91	<5	1.28	7.32	5.6	354
	2/15/2017	<0.2	74.2	15.6	5.11	7.09	49.6	378
	4/24/2017	<0.2	63.3	9.00	2.87	7.68	10.5	324
	6/15/2017	<0.2	89.4	<5	<0.5	7.32	<5	386
	7/12/2017	<0.2	92.8	<5	<0.5	7.99	8.94	528
	11/9/2017	<0.2	148	<5	<0.5	7.33	185.0	604
	3/12/2018	<0.2	167	11.7	0.723	6.61 / 7.41 [1]	371.0	792
	6/6/2018	0.654	198	22.9	<0.5	4.40 / 6.91 [2]	491.0	978
	10/3/2018	<0.2	127	8.74	0.523	6.94	31.2	478
	4/8/2019	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]
	9/23/2019	<0.2	132	7.53	0.527	N.S.	24	494
	10/15/2019	<0.2	138	7.92	<0.5	6.81	20.3	472
	1/31/2020	<0.1	156	6.90	<0.5	6.61	89.9	600
	4/27/2020	0.0765J	181	8.70	0.300J	6.62	183	774
	7/14/2020	0.401	204	3.86J	<0.23	6.8	407	842
	10/5/2020	0.213	159	7.71	0.535	6.76	156	644
	4/12/2021	0.271	141	22.7	1.37	6.53	379	1080
	10/4/2021	0.306	139	12.6	0.492J	7.02	292	860
	4/4/2022	0.198	212	47.0	1.12	4.01 / 7.1^	703	1590
	10/3/2022	0.468	194	12.1	1.17	7.15	563	1440
	4/11/2023	0.265	182	11.1	1.07	6.91	401	1110
	10/10/2023	0.406	179	9.24	1.26	6.72	427	1140
	4/15/2024	0.384	198	7.42	0.844J	6.76	355	1030
	10/7/2024	0.458	173	7.54	1.44	6.76	373	1160
NC2MW-6	3/14/2016	3.83	134	16.5	<0.5	7.21	314.0	728
	6/3/2016	4.14	93.0	6.16	<0.5	7.27	171.0	608
	8/31/2016	4.79	90.4	<5.0	<0.5	7.43	149.0	592
	11/17/2016	5.11	125	15	6.53	7.63	165.0	588
	2/15/2017	4.11	132	<5.0	<0.5	7.77	136.0	602
	4/24/2017	3.08	96.5	10.2	1.71	7.68	99.1	530
	6/15/2017	3.58	119	6.26	<0.5	7.35	196.0	636
	7/12/2017	3.92	102	<5.0	<0.5	7.25	155.0	596
	11/9/2017	4.39	128	6.75	<0.5	7.24	195.0	872
	3/12/2018	3.06	145	7.14	<0.5	6.64 / 7.38 [1]	194.0	644
	6/6/2018	3.58	133	5.53	<0.5	7.19	174.0	694
	10/3/2018	4.18	129	<5.0	<0.5	6.97	200	660
	4/8/2019	2.46	94.3	<5	<0.5	7.18	141	520
	10/15/2019	2.79	154	9.08	<0.5	6.82	151	656
	1/31/2020	2.86	149	8.67	<0.5	6.94	171	884
	4/27/2020	2.59	125	8.29	0.335J	6.80	149	586
	7/14/2020	2.60	122	7.83	0.232J	6.93	135	526
	10/5/2020	3.03	126	8.57	0.329J	6.89	147	404
	4/12/2021	1.94	90.4	3.57J	<0.275	6.65	101	406
	10/4/2021	2.48	123	6.30	<0.275	7.20	132	524
	4/4/2022	2.42	142	6.45	<0.220	7.48 / 7.2^	134	600
	10/4/2022	2.33	120	6.05	<0.220	7.41	97.9	566
	4/10/2023	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]	N.S. [5]
	10/10/2023	2.09	126	5.32	<0.375	6.60	112	580
	4/15/2024	1.98	142	7.41	<0.375	6.56	129	610
	10/7/2024	2.49	158	12.8	1.44	6.98	129	666
NC2MW-7	3/14/2016	<0.2	134	6.55	0.31	6.92	6.88	496
	6/3/2016	<0.2	128	7.63	<0.5	7.28	<5	690
	8/31/2016	<0.2	100	6.68	<0.5	7.55	<5	534
	11/17/2016	<0.2	138	5.73	0.54	7.77	<5	510
	2/15/2017	<0.2	143	9.96	<0.5	7.55	<5	552
	4/24/2017	<0.2	139	11.3	1.35	7.83	<5	576
	6/15/2017	<0.2	128	9.81	<0.5	7.40	<5	688
	7/12/2017	<0.2	125	8.07	<0.5	7.25	<5	636

Table 4 - Appendix III (Detection Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix III (Detection Monitoring) Constituents						
Constituent		Boron	Calcium	Chloride	Fluoride*	pH	Sulfate	TDS
Reporting Unit		mg/L	mg/L	mg/L	mg/L	S.U.	mg/L	mg/L
NC2MW-7 (cont'd)	11/9/2017	0.201	131	7.79	<0.5	7.40	17.8	580
	3/12/2018	<0.2	144	9.04	<0.5	6.72 / 7.42 [1]	25.7	496
	6/6/2018	<0.2	119	9.41	<0.5	7.21	12.0	528
	10/3/2018	<0.2	122	9.19	0.519	7.31	11.6	494
	4/8/2019	0.214	132	8.64	<0.5	7.33	44.0	820
	9/23/2019	<0.2	129	8.33	<0.5	N.S.	19.1	526
	10/15/2019	<0.2	139	8.41	<0.5	7.02	32.1	520
	2/3/2020	0.133J	123	8.51	0.357J	6.76	30.9	534
	4/27/2020	0.172	126	9.12	0.429J	6.89	9.26	518
	7/14/2020	0.161	121	9.83	<0.23	6.81	<3.55	340
	10/5/2020	0.220	122	9.12	0.322J	7.21	<3.55	396
	4/12/2021	0.227	124	8.69	0.415J	6.85	<2.45	494
	10/4/2021	0.190	118	9.27	<0.275	7.38	<2.45	430
	4/4/2022	0.241	132	7.08	<0.220	7.89 / 7.2^	6.49	484
	10/3/2022	0.249	117	8.88	<0.220	7.60	<2.00	482
	4/10/2023	0.142	121	9.73	0.402J	7.37	2.41J	598
	10/10/2023	0.168	114	10.3	<0.375	7.27	<2.10	468
	4/15/2024	0.176	123	9.91	<0.375	7.13	4.70J	464
	10/7/2024	0.213	121	11.1	<0.375	7.06	3.41J	458
NC2MW-8 [3]	10/3/2018	<0.2	142	7.05	0.566	7.14	10.7	526
	1/15/2019	<0.2	102	8.10	<0.5	6.73	11.6	504
	3/5/2019	<0.2	153	7.84	<0.5	7.02	11.6	512
	4/8/2019	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]	N.S. [4]
	9/23/2019	<0.2	141	8.96	0.582	6.84	<5	534
	10/16/2019	<0.2	140	9.42	<0.5	6.89	<5	476
	1/31/2020	0.747	140	9.19	<0.5	6.71	106	600
	4/27/2020	0.0777J	127	10.8	0.504	6.81	6.46	500
	7/14/2020	0.0838J	127	10.3	<0.23	7.04	6.24	448
	10/5/2020	0.115	116	10.0	0.331J	7.02	5.50	512
	4/12/2021	0.0894J	121	11.8	0.393J	6.58	7.34	470
	10/4/2021	0.107	130	10.3	<0.275	7.26	7.47	436
	4/4/2022	0.114	132	9.66	<0.220	6.61 / 7.3^	9.69	428
	10/3/2022	0.153	125	9.91	<0.220	7.30	13.30	492
	4/10/2023	<0.0760	126	13.0	0.394J	7.16	53.2	556
	10/10/2023	0.120	109	9.63	<0.375	6.61	81.7	454
	4/15/2024	0.101	114	9.30	<0.375	6.80	58.9	418
	10/7/2024	0.113	134	11.3	<0.375	7.09	18.3	456

N.S. = Not Sampled

"J" data qualifier indicates that value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value and was not used as a statistically significant detection.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

For the period of March 2016 through October 2019, the "<" symbol indicates analyte not detected above the Reporting Limit, which is the value shown following the "<" symbol. Starting in January 2020, the symbol indicates analyte not detected above the Method Detection Limit, which is the value shown following the "<" symbol.

^Field measurements of pH for select samples were observed to be anomalous. The pH for these samples were also analyzed by the laboratory. The first pH value is the field measured value, and the second pH value is the lab measured value.

[1] The first pH value obtained in the field on March 13, 2018 was found to be inaccurate due to equipment errors. The second pH value was a verification sample obtained in the field on March 19, 2018.

[2] Verification sampling for pH was completed on August 7, 2018 and determined the June 5, 2018 reading was inaccurate.

[3] NC2MW-8 was installed July 9, 2018 and was added to the Groundwater Monitoring System Certification in June 2019. The 9/23/2019 sampling event was part of an Alternative Source Demonstration for the Title 132 Groundwater Assessment Report.

[4] MW-13, NC2MW-3, and NC2MW-8 were surrounded by ponding water during April 2019 sampling event and were not measured. Additionally, MW-13 was surrounded by ponding water and not sampled during the October 2019 sampling event.

[5] NC2MW-5 and NC2MW-6 were either dry or had insufficient water volume to collect a water sample during the April 2023 sampling event.

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Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents														
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
Reporting Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NC2MW-4	3/9/2016	<0.001	<0.002	0.281	<0.001	<0.0005	<0.005	<0.0005	1.54	<0.5	0.00199	<0.05	<0.0002	0.00272	<0.005	<0.001
	3/14/2016	<0.001	<0.002	0.276	<0.001	<0.0005	<0.005	<0.0005	0.563	0.213	0.00065	<0.05	<0.0002	0.00507	<0.005	<0.001
	6/3/2016	<0.001	<0.002	0.288	<0.001	<0.0005	<0.005	<0.0005	0.739	<0.5	0.000737	<0.05	<0.0002	0.00239	<0.005	<0.001
	6/7/2016	<0.001	<0.002	0.293	<0.001	<0.0005	<0.005	<0.0005	1.21	<0.5	0.000951	<0.05	<0.0002	0.00283	<0.005	<0.001
	8/31/2016	<0.001	<0.002	0.296	<0.001	<0.0005	<0.005	<0.0005	1.04	0.646	0.00162	<0.05	<0.0002	0.00252	<0.005	<0.001
	11/17/2016	<0.001	<0.002	0.284	<0.001	<0.0005	<0.005	<0.0005	1.03	1.28	0.000536	<0.05	<0.0002	0.00597	<0.005	<0.001
	11/18/2016	<0.001	<0.002	0.283	<0.001	<0.0005	<0.005	<0.0005	0.984	1.10	0.00127	<0.05	<0.0002	0.00288	<0.005	<0.001
	2/14/2017	<0.001	<0.002	0.300	<0.001	<0.0005	<0.005	0.00129	0.894	<0.5	0.0032	<0.05	<0.0002	0.0028	<0.005	<0.001
	2/15/2017	<0.001	<0.002	0.272	<0.001	<0.0005	<0.005	0.000584	0.647	2.43	0.00196	<0.05	<0.0002	0.00393	<0.005	<0.001
	4/24/2017	<0.001	<0.002	0.287	<0.001	<0.0005	<0.005	<0.0005	1.08	1.08	0.000802	<0.05	<0.0002	0.00224	<0.005	<0.001
	4/25/2017	<0.001	<0.002	0.3	<0.001	<0.0005	<0.005	<0.0005	1.23	<0.5	0.000714	<0.05	<0.0002	0.00323	<0.005	<0.001
	6/15/2017	<0.001	<0.002	0.249	<0.001	<0.0005	<0.005	0.000521	1.29	<0.5	0.00165	<0.05	<0.0002	0.00422	<0.005	<0.001
	6/20/2017	<0.001	<0.002	0.258	<0.001	<0.0005	<0.005	<0.0005	1.16	<0.5	0.000754	<0.05	<0.0002	0.00551	0.00593	<0.001
	7/12/2017	<0.001	<0.002	0.232	<0.001	<0.0005	<0.005	<0.0005	1.42	<0.5	0.000549	<0.05	<0.0002	0.00233	<0.005	<0.001
	7/13/2017	<0.001	<0.002	0.236	<0.001	<0.0005	<0.005	<0.0005	0.76	<0.5	0.000787	<0.05	<0.0002	0.00326	<0.005	<0.001
	3/12/2018	<0.001	<0.002	0.297	<0.001	<0.0005	<0.005	<0.0005	1.71	<0.5	0.00192	0.0318	<0.0002	<0.002	0.0112	<0.001
	6/6/2018	<0.001	<0.002	0.329	<0.001	<0.0005	<0.005	0.000502	1.90	<0.5	0.00154	0.0292	<0.0002	0.0049	0.00754	<0.001
	10/3/2018	N.S.	<0.002	0.321	N.S.	N.S.	N.S.	<0.0005	1.13	<0.5	0.000565	0.0332	N.S.	0.00707	<0.005	N.S.
	4/8/2019	<0.001	<0.002	0.351	<0.001	<0.0005	<0.005	<0.0005	0.743	<0.5	<0.0005	0.0351	<0.0002	0.00283	<0.005	<0.001
	10/15/2019	<0.001	<0.002	0.390	<0.001	0.000138	<0.005	<0.0005	1.22	<0.5	<0.0005	0.0343	<0.0002	0.00412	<0.005	<0.001
	1/30/2020	<0.00058	0.00109J	0.340	<0.00027	0.0000720J	<0.0011	0.000531	0.610	<0.5	0.00167	0.0347	<0.0001	0.00177J	<0.001	<0.00026
	4/20/2020	0.000609J	<0.000880	0.303	<0.00027	<0.000039	<0.0011	0.000167J	0.684	0.421J	0.000624	0.0305	<0.0001	0.00191J	<0.001	<0.00026
	4/27/2020	<0.00058	<0.000880	0.335	<0.00027	0.0000470J	<0.0011	0.000121J	0.743	0.315J	0.000398J	0.0284	<0.0001	0.00192J	<0.001	<0.00026
	7/14/2020	<0.00051	0.00104J	0.311	<0.00027	0.000119	<0.0011	0.000591	2.19	<0.23	0.00181	0.0311	<0.0001	0.00173J	0.00129J	<0.00026
	10/5/2020	<0.00051	0.00348	0.447	<0.00027	0.0000970J	0.00164J	0.00122	-0.927U	<0.23	0.00243	0.0349	<0.0001	0.00272	<0.001	<0.00026
	4/12/2021	<0.00110	0.00113J	0.268	<0.00027	0.0000580J	<0.00110	0.000256J	0.984	0.311J	0.000833	0.0230	<0.00015	0.0112	0.0111	<0.00026
	10/4/2021	<0.00110	0.00275	0.420	0.000571J	0.000469	0.00110J	0.00203	8.390	<0.275	0.00610	0.0324	<0.00015	0.00154J	0.00391J	0.000527J
	4/4/2022	<0.000690	0.00150J	0.338	<0.000270	0.0000820J	<0.00110	0.000723	0.555U	<0.220	0.00208	0.0301	<0.000110	0.00609	0.0146	<0.000260
	10/4/2022	<0.000690	0.00114J	0.347	<0.000270	0.0000600J	<0.00110	0.000383J	2.640	<0.220	0.00074	0.0303	<0.000110	0.00422	<0.000960	<0.000260
	4/10/2023	<0.00100	0.00605	0.473	0.000423J	0.000168J	0.0103	0.00415	1.49	<0.375	0.00639	0.0397	<0.000140	0.00466	0.00417J	<0.000260
	10/10/2023	<0.00100	0.00196J	0.342	<0.000330	0.000155J	<0.00110	0.00164	3.17	<0.375	0.00360	0.0311	<0.000140	0.00302	0.00965	<0.000260
	4/15/2024	<0.00100	0.00250	0.466	<0.000330	<0.000100	<0.00120	0.00122	1.30	<0.375	0.00213	0.0339	<0.000110	0.00262	<0.00140	<0.000570
	10/7/2024	<0.00100	0.00115J	0.375	<0.000330	<0.000100	<0.00120	0.000228J	3.35	0.511J	0.000616	0.0366	<0.000110	0.00623	0.00567	<0.000570
NC2MW-5	3/14/2016	<0.001	<0.002	0.0295	<0.001	<0.0005	<0.005	<0.0005	0.318	<0.5	<0.0005	<0.05	<0.0002	0.00587	<0.005	<0.001
	6/3/2016	<0.001	0.00291	0.0384	<0.001	<0.0005	<0.005	<0.0005	0.354	<0.5	<0.0005	<0.05	<0.0002	0.0237	<0.005	<0.001
	8/31/2016	<0.001	<0.002	0.0414	<0.001	<0.0005	<0.005	<0.0005	0.365	<0.5	<0.0005	<0.05	<0.0002	0.0243	<0.005	<0.001
	11/17/2016	<0.001	0.00218	0.0558	<0.001	<0.0005	<0.005	<0.0005	0.476	1.89	<0.0005	<0.05	<0.0002	0.0204	<0.005	<0.001
	2/15/2017	<0.001	<0.002	0.0335	<0.001	<0.0005	<0.005	<0.0005	0.106	0.59	0.00088	<0.05	<0.0002	0.0168	<0.005	<0.001
	4/24/2017	<0.001	0.00236	0.0366	<0.001	<0.0005	<0.005	<0.0005	0.136	1.25	0.000734	<0.05	<0.0002	0.00818	<0.005	<0.001
	6/15/2017	<0.001	0.00207	0.0416	<0.001	<0.0005	<0.005	<0.0005	0.265	<0.5	0.000601	<0.05	0.0002	0.0125	<0.005	<0.001
	7/12/2017	<0.001	0.0022	0.0484	<0.001	<0.0005	<0.005	<0.0005	0.507	<0.5	0.000584	<0.05	<0.0002	0.0120	<0.005	<0.001
	3/12/2018	<0.001	0.0026	0.0395	<0.001	<0.0005	<0.005	<0.0005	0.236 U	<0.5	0.000562	<0.01	<0.0002	0.0145	0.0238	<0.001
	6/6/2018	<0.001	0.00325	0.0713	<0.001	<0.0005	<0.005	<0.0005	0.187	<0.5	0.00159	0.0129	<0.0002	0.0205	0.0144	<0.001
	10/3/2018	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	<0.5	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
	4/8/2019	N.S.	<0.002	0.0341	N.S.	<0.0005	<0.005	N.S.	N.S.	0.634	<0.0005	N.S.	<0.0002	N.S.	<0.005	N.S.
	10/15/2019	<0.001	0.00247	0.0340	<0.001	<0.0001	<0.005	<0.0005	-0.0619 U	<0.5	<0.0005	0.0152	<0.0002	0.0339	<0.005	<0.001
	1/30/2020	0.00110	0.00187J	0.0299	<0.00027	<0.000039	<0.0011	0.0000910J	0.0845U	<0.5	0.000388J	0.00889J	<0.0001	0.0120	0.00283J	<0.00026
	4/27/2020	<0.00058	0.00162J	0.0357	<0.00027	<0.000039	<0.0011	0.0000920J	-0.0625	0.323J	<0.00027	0.0102	<0.0001	0.0147	0.00189J	<0.00026
	7/14/2020	<0.00051	0.00279	0.0536	<0.00027	<0.000049	<0.0011	0.000123J	0.0869	<0.23	0.000871	0.0194	<0.0001	0.0114	0.00551	<0.00026
	10/5/2020	<0.00051	0.00243	0.0588	<0.00027	0.0000990J	<0.0011	0.000236J	0.255U	<0.23	0.000379J	0.0200	<0.0001	0.0212	<0.001	<0.00026
	4/12/2021	<0.00110	0.00170J	0.0245	<0.00027	<0.000051	<0.0011	0.000105J	-0.0122U	0.356J	<0.00210	0.00783J	<0.00015	0.0252	0.00867	<0.00026
	10/4/2021	<0.00110	0.00245	0.0519	<0.00027	0.0000570J	<0.0011	0.000226J	1.03	<0.275	0.000630	0.0120	<0.00015	0.0236	0.00162J	<0.00026
	4/4/2022	<0.000690	0.00165J	0.0377	<0.000270	<0.0000550	<0.00110	0.000275J	0.163U	<0.220	<0.000240	0.00776J	<0.000110	0.0291	0.00944	<0.000260
	10/4/2022	<0.000690	0.00225	0.0548	<0.000270	0.0000700J	<0.00110	0.000306J	0.716	<0.220	0.002080	0.0142	<0.000110	0.0356	<0.000960	<0.000260
	4/10/2023	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]
	10/10/2023	<0.00100	0.00282	0.0675	<0.000330	<0.000100	<0.00110	0.000253J	0.163U	<0.375	0.000555	0.0145	0.000169J	0.0345	<0.00140	0.000523J
	4/15/2024	<0.00100	0.00221	0.0672	<0.000330	<0.000100	<0.00120	0.000280J	0.224U	<0.375	0.000846	0.0167	<0.000110	0.0246	<0.00140	<0.000570
	10/7/2024	<0.00100	0.00438	0.113	<0.000330	<0.000100	<0.00120	0.000345J	1.19	<0.375	0.00315	0.0215	<0.000110	0.0404	<0.00140	0.00307J

Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents														
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
Reporting Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
MW-13	3/9/2016	<0.001	0.00492	0.302	<0.001	<0.0005	<0.005	0.000817	1.14	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	3/14/2016	<0.001	0.00545	0.288	<0.001	<0.0005	<0.005	0.00105	0.741	<0.5	<0.0005	<0.05	<0.0002	0.0167	<0.005	<0.001
	6/3/2016	<0.001	0.00607	0.324	<0.001	<0.0005	<0.005	0.00122	1.01	<0.5	0.000704	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/7/2016	<0.001	0.00591	0.317	<0.001	<0.0005	<0.005	0.00118	0.690	<0.5	0.000623	<0.05	<0.0002	<0.002	<0.005	<0.001
	8/31/2016	<0.001	0.00623	0.342	<0.001	<0.0005	<0.005	0.00107	1.09	<0.5	<0.0005	<0.05	<0.0002	0.00216	<0.005	<0.001
	11/17/2016	<0.001	0.00515	0.322	<0.001	<0.0005	<0.005	0.000873	1.37	0.803	0.00089	<0.05	<0.0002	0.00258	<0.005	<0.001
	11/18/2020	<0.001	0.0058	0.333	<0.001	<0.0005	<0.005	0.000916	0.745	0.647	<0.0005	<0.05	<0.0002	0.00235	<0.005	<0.001
	2/14/2017	<0.001	0.00304	0.349	<0.001	<0.0005	<0.005	0.000925	0.532	3.64	<0.0005	<0.05	<0.0002	0.00228	<0.005	<0.001
	2/15/2017	<0.001	0.00289	0.321	<0.001	<0.0005	<0.005	0.000883	0.407	<0.5	<0.0005	<0.05	<0.0002	0.00221	<0.005	<0.001
	4/24/2017	<0.001	0.0024	0.336	<0.001	<0.0005	<0.005	0.00135	0.579	0.79	0.000516	<0.05	<0.0002	0.00207	<0.005	<0.001
	4/25/2017	<0.001	0.00269	0.358	<0.001	<0.0005	<0.005	0.00141	0.429	0.80	0.000522	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/15/2017	<0.001	0.00371	0.318	<0.001	<0.0005	<0.005	0.00127	0.800	<0.5	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	6/20/2017	<0.001	0.00268	0.311	<0.001	<0.0005	<0.005	0.00119	0.483	0.505	0.00171	<0.05	<0.0002	<0.002	<0.005	<0.001
	7/12/2017	<0.001	0.00263	0.328	<0.001	<0.0005	<0.005	0.00112	1.56	<0.5	<0.0005	<0.05	<0.0002	0.00210	<0.005	<0.001
	7/13/2017	<0.001	0.00325	0.330	<0.001	<0.0005	<0.005	0.00108	0.502	<0.5	<0.0005	<0.05	<0.0002	0.00206	<0.005	<0.001
	3/12/2018	<0.001	0.00295	0.306	<0.001	<0.0005	<0.005	0.00189	0.492	<0.5	0.00086	0.0297	<0.0002	<0.002	<0.005	<0.001
	6/6/2018	<0.001	0.00262	0.282	<0.001	<0.0005	<0.005	0.00236	1.89	<0.5	0.00577	0.0423	<0.0002	<0.002	0.00553	<0.001
	10/3/2018	N.S.	0.00965	0.388	N.S.	N.S.	N.S.	0.00191	1.62	0.738	0.00216	0.0316	N.S.	0.00243	<0.005	<0.001
	4/8/2019	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]
	10/15/2019	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]
	1/30/2020	<0.00058	0.00824	0.230	<0.00027	<0.000039	<0.0011	0.00198	0.0337U	<0.5	0.000335J	0.0273	<0.0001	0.00187J	<0.001	<0.00026
	4/20/2020	<0.00058	0.00867	0.177	<0.00027	<0.000039	<0.0011	0.00193	0.438	0.399J	0.000311J	0.0374	<0.0001	0.00457	<0.001	<0.00026
	4/27/2020	<0.00058	0.0111	0.167	<0.00027	<0.000039	<0.0011	0.00208	-0.0922	0.383J	0.000297J	0.0348	<0.0001	0.00335	<0.001	<0.00026
	7/14/2020	<0.00051	0.0118	0.182	<0.00027	<0.000049	<0.0011	0.000549	0.539	0.267J	0.000250J	0.0277	<0.0001	0.00130J	<0.001	<0.00026
	10/5/2020	<0.00051	0.0188	0.225	<0.00027	<0.000049	<0.0011	0.000384J	0.872	<0.23	0.000178J	0.0322	<0.0001	<0.0011	<0.001	<0.00026
	4/12/2021	<0.00110	0.00487	0.0815	<0.00027	<0.000051	<0.0011	0.00099	0.429U	0.441J	0.000353J	0.0199	<0.00015	0.00443	0.00194J	<0.00026
	10/4/2021	<0.00110	0.0402	0.257J	<0.00027	<0.000051	<0.0011	0.001020	1.84	<0.275	<0.000210	0.0330	<0.00015	<0.00130	<0.000960	<0.00026
	4/4/2022	<0.000690	0.0134	0.202	<0.000270	<0.0000550	<0.00110	0.000879	0.500U	<0.220	0.000698	0.0329	<0.000110	<0.00120	<0.000960	<0.000260
	10/3/2022	<0.000690	0.0151	0.253	<0.000270	<0.0000550	<0.00110	0.000419J	1.24	<0.220	<0.000240	0.0301	<0.000110	<0.00120	<0.000960	<0.000260
	4/10/2023	<0.00100	0.0112	0.281	<0.000330	<0.000100	<0.00110	0.000591	1.06	<0.375	<0.000240	0.0345	<0.000140	<0.000910	<0.00140	<0.000260
	10/10/2023	<0.00100	0.0411	0.313	<0.000330	<0.000100	<0.00110	0.000726	1.22	1.00	0.000375J	0.0385	<0.000140	0.00175J	<0.00140	<0.000260
	4/15/2024	<0.00100	0.0120	0.275	<0.000330	<0.000100	<0.00120	0.000593	1.35	<0.375	<0.000260	0.0362	<0.000110	<0.00130	<0.00140	<0.000570
	10/7/2024	<0.00100	0.0122	0.329	<0.000330	<0.000100	<0.00120	0.000292J	3.53	<0.375	0.000310J	0.0380	<0.000110	<0.00130	<0.00140	<0.000570
NC2MW-2	3/14/2016	0.00188	<0.002	0.0679	<0.001	<0.0005	<0.005	<0.0005	0.967	0.371	<0.0005	0.0512	<0.0002	0.00207	<0.005	<0.001
	6/3/2016	0.00944	<0.002	0.136	<0.001	<0.0005	0.0153	<0.0005	0.535	<0.5	0.000538	<0.05	<0.0002	0.00368	<0.005	<0.001
	8/31/2016	0.00812	<0.002	0.0814	<0.001	<0.0005	<0.005	<0.0005	0.996	<0.5	0.000872	<0.05	<0.0002	0.00757	<0.005	<0.001
	11/17/2016	0.00452	<0.002	0.122	<0.001	<0.0005	<0.005	<0.0005	1.39	<0.5	<0.0005	<0.05	<0.0002	0.00519	<0.005	<0.001
	2/15/2017	0.00331	<0.002	0.144	<0.001	<0.0005	<0.005	<0.0005	0.304	2.51	0.000671	<0.05	<0.0002	0.0093	<0.005	<0.001
	4/24/2017	0.00303	<0.002	0.076	<0.001	<0.0005	<0.005	<0.0005	0.518	1.38	<0.0005	<0.05	<0.0002	0.0158	<0.005	<0.001
	6/15/2017	0.00282	<0.002	0.0828	<0.001	<0.0005	<0.005	<0.0005	0.48	<0.5	0.000721	<0.05	<0.0002	0.0106	<0.005	<0.001
	7/12/2017	0.00266	<0.002	0.0837	<0.001	<0.0005	<0.005	<0.0005	0.721	<0.5	0.000949	<0.05	<0.0002	0.0174	<0.005	<0.001
	3/12/2018	0.00261	<0.002	0.120	<0.001	<0.0005	<0.005	0.000626	0.882	<0.5	0.000604	0.0165	<0.0002	0.0402	<0.005	<0.001
	6/6/20018	0.00345	<0.002	0.179	<0.001	<0.0005	<0.005	0.00132	1.15	<0.5	<0.0005	0.0201	<0.0002	0.137	<0.005	<0.001
	10/3/2018	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	<0.5	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
	4/8/2019	N.S.	<0.002	0.127	N.S.	<0.0005	<0.005	N.S.	N.S.	<0.5	0.00206	N.S.	<0.0002	N.S.	<0.005	N.S.
	9/23/2019	0.00388	<0.002	0.107	<0.001	<0.0001	<0.005	<0.0005	N.S.	0.546	0.00183	0.0150	<0.0002	0.0938	<0.005	<0.001
	10/15/2019	0.00900	<0.002	0.142	<0.001	0.000220	<0.005	<0.0005	0.650	<0.5	0.000787	0.0313	<0.0002	0.0361	<0.005	<0.001
	1/31/2020	0.00510	<0.000880	0.133	<0.00027	0.000111	<0.0011	0.000277J	0.736	<0.5	0.00106	0.0406	<0.0001	0.0158	0.00165J	<0.00026
	4/27/2020	0.00243	<0.000880	0.141	<0.00027	0.0000980J	<0.0011	0.000161J	0.987	0.256J	0.00106	0.0411	<0.0001	0.00966	0.00116J	<0.00026
	7/14/2020	0.00268	0.000989J	0.152	<0.00027	0.000306	<0.0011	0.000202J	0.995	<0.23	0.000908	0.0468	<0.0001	0.0163	<0.001	<0.00026
	10/5/2020	0.00381	0.00117J	0.170	<0.00027	0.000186	<0.0011	0.000208J	1.06	<0.23	0.000797	0.0523	<0.0001	0.0177	<0.001	<0.00026
	4/12/2021	0.00524	<0.000750	0.0967	<0.000270	0.0000690J	<0.00110	0.000118J	1.01	0.392J	0.000752	0.0311	<0.00015	0.0178	0.00641	<0.00026
	10/4/2021	0.00323	0.000907J	0.106	<0.000270	0.000287	<0.00110	0.00224	1.92	<0.275	0.000609	0.0247	<0.00015	0.0505	0.00128J	<0.00026
	4/4/2022	0.00298	0.000766J	0.124	<0.000270	0.0000900J	<0.00110	0.000522	1.09	<0.220	0.000861	0.0254	<0.000110	0.0322	0.00627	<0.000260
	10/3/2022	0.00298	0.00104J	0.108	<0.000270	0.000206	<0.00110	0.000713	2.08	0.330J	0.000853	0.0338	<0.000110	0.0354	<0.000960	<0.000260
	4/10/2023	0.00350	0.00100J	0.139	<0.000330	0.000283	<0.00110	0.00301	1.64	0.442J	0.000546	0.0261	<0.000140	0.0560	0.00962	<0.000260
	10/10/2023	0.00369	0.00155J	0.0769	<0.000330	0.000310	<0.00110	0.000607	0.681	<0.375	0.000550	0.0286	0.000222	0.0394	0.00228J	<0.000260
	4/15/2024	0.00261	0.000969J	0.0880	<0.000330	0.000137J	<0.00120	0.000395J	1.28	<0.375	0.000905	0.0253	<0.000110	0.0245	0.00994	<0.000570
	10/7/2024	0.00349	0.00111J	0.0769	<0.000330	0.000148J	<0.00120	0.000467J	1.64	0.603J	0.000844	0.0430	<0.000110	0.0266	0.00168J	0.00165

Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents														
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
Reporting Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NC2MW-3	3/14/2016	<0.001	0.00762	0.253	<0.001	<0.0005	<0.005	<0.0005	0.948	0.168	<0.0005	<0.05	<0.0002	0.00293	<0.005	<0.001
	6/3/2016	<0.001	0.0191	0.362	<0.001	<0.0005	<0.005	<0.0005	0.924	<0.5	<0.0005	<0.05	<0.0002	0.00377	<0.005	<0.001
	8/31/2016	<0.001	0.0103	0.211	<0.001	<0.0005	<0.005	<0.0005	0.446	<0.5	0.000692	<0.05	<0.0002	0.00301	<0.005	<0.001
	11/17/2016	<0.001	0.0113	0.234	<0.001	<0.0005	<0.005	<0.0005	0.616	1.28	<0.0005	<0.05	<0.0002	<0.002	<0.005	<0.001
	2/15/2017	0.00111	0.0066	0.281	<0.001	<0.0005	<0.005	0.00051	0.381	5.11	<0.0005	<0.05	<0.0002	0.0176	<0.005	<0.001
	4/24/2017	<0.001	0.00892	0.174	<0.001	<0.0005	<0.005	0.00216	0.521	2.87	0.000691	<0.05	<0.0002	0.00677	<0.005	<0.001
	6/15/2017	<0.001	0.0101	0.225	<0.001	<0.0005	<0.005	0.00103	0.928	<0.5	0.00103	<0.05	<0.0002	0.00298	<0.005	<0.001
	7/12/2017	<0.001	0.00286	0.267	<0.001	<0.0005	<0.005	0.000806	0.479	<0.5	0.000913	<0.05	<0.0002	0.00206	<0.005	<0.001
	3/12/2018	<0.001	0.0027	0.125	<0.001	<0.0005	<0.005	0.000997	0.600	0.723	0.00178	0.0128	<0.0002	0.00454	<0.005	<0.001
	6/6/2019	<0.001	0.00835	0.163	<0.001	<0.0005	<0.005	0.00768	1.22	<0.5	<0.0005	0.0182	<0.0002	0.0628	<0.005	<0.001
	10/3/2018	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	0.532	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
	4/8/2019	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]
	9/23/2019	<0.001	0.00325	0.289	<0.001	<0.0001	<0.005	0.00224	N.S.	0.527	<0.0005	0.0452	<0.0002	0.00550	<0.005	<0.001
	10/15/2019	<0.001	0.00344	0.312	<0.001	<0.0001	<0.005	0.00232	0.878	<0.5	<0.0005	0.0428	<0.0002	0.00526	<0.005	<0.001
	1/31/2020	<0.00058	0.00338	0.297	<0.00027	<0.000039	<0.0011	0.00197	0.707	<0.5	<0.00027	0.0333	<0.0001	0.00392	<0.001	<0.00026
	4/27/2020	<0.00058	0.00483	0.340	<0.00027	<0.000039	<0.0011	0.00991	0.552	0.300J	0.000617	0.0333	<0.0001	0.00565	<0.001	<0.00026
	7/14/2020	<0.00051	0.00685	0.171	<0.00027	<0.000049	<0.0011	0.00274	0.885	<0.23	0.000595	0.0317	<0.0001	0.0112	<0.001	<0.00026
	10/5/2020	<0.00051	0.00735	0.191	<0.00027	<0.000049	<0.0011	0.000647	1.32	0.535	0.000163J	0.0399	<0.0001	0.00487	<0.001	<0.00026
	4/12/2021	<0.00110	0.00113J	0.113	<0.00027	0.0000680J	<0.0011	0.000188J	0.188U	1.37	<0.000210	0.0146	<0.0015	0.00306	<0.00096	<0.00026
	10/4/2021	<0.00110	0.00354	0.0769	<0.00027	0.0000820J	<0.0011	0.0115	0.898	0.492J	0.000485J	0.0241	<0.00015	0.00356	<0.00096	<0.00026
	4/4/2022	<0.000690	0.00171J	0.0977	<0.000270	0.000104	<0.00110	0.00101	0.955	1.12	0.000288J	0.0201	<0.000110	0.00371	0.0174	<0.000260
	10/3/2022	<0.000690	0.00344	0.0718	<0.000270	<0.0000550	<0.00110	0.00328	1.00	1.17	<0.000240	0.0234	<0.000110	0.0025	<0.000960	<0.000260
	4/11/2023	<0.00100	0.00193J	0.0688	<0.000330	<0.000100	<0.00110	0.00122	3.88	1.07	0.000284J	0.0271	<0.000140	0.00323	<0.00140	<0.000260
	10/10/2023	<0.00100	0.00323	0.0596	<0.000330	0.000129J	<0.00110	0.00198	0.455U	1.26	0.000469J	0.0278	0.000184J	0.00417	0.00171J	<0.000260
	4/15/2024	<0.00100	0.00157J	0.0666	<0.000330	<0.000100	<0.00120	0.000531	1.15	0.844J	0.000338J	0.0337	<0.000110	0.00414	0.00209J	0.000638J
	10/7/2024	<0.00100	0.00270	0.0735	<0.000330	<0.000100	<0.00120	0.00155	0.842	1.44	0.000524	0.0258	<0.000110	0.00142J	<0.00140	0.00139
NC2MW-6	3/14/2016	<0.001	<0.002	0.0818	<0.001	<0.0005	0.00629	<0.0005	0.392	<0.5	<0.0005	<0.05	<0.0002	0.0210	0.00645	<0.001
	6/3/2016	<0.001	<0.002	0.0823	<0.001	<0.0005	0.00535	<0.0005	0.603	<0.5	<0.0005	<0.05	<0.0002	0.0593	<0.005	<0.001
	8/31/2016	<0.001	<0.002	0.122	<0.001	<0.0005	<0.005	<0.0005	1.03	<0.5	<0.0005	<0.05	<0.0002	0.0677	<0.005	<0.001
	11/17/2016	<0.001	<0.002	0.109	<0.001	<0.0005	<0.005	<0.0005	1.48	6.53	<0.0005	<0.05	<0.0002	0.0455	<0.005	<0.001
	2/15/2017	<0.001	<0.002	0.0948	<0.001	<0.0005	<0.005	<0.0005	0.429	<0.5	0.000901	<0.05	<0.0002	0.0265	<0.005	<0.001
	4/24/2017	<0.001	<0.002	0.0791	<0.001	<0.0005	<0.005	<0.0005	0.425	1.71	<0.0005	<0.05	<0.0002	0.041	<0.005	<0.001
	6/15/2017	<0.001	<0.002	0.105	<0.001	<0.0005	0.00501	<0.0005	0.641	<0.5	0.00329	<0.05	<0.0002	0.0354	<0.005	<0.001
	7/12/2017	<0.001	<0.002	0.0916	<0.001	<0.0005	<0.005	<0.0005	0.949	<0.5	<0.0005	<0.05	<0.0002	0.0419	<0.005	<0.001
	3/12/2018	<0.001	<0.002	0.107	<0.001	<0.0005	<0.005	0.000505	0.530	<0.5	0.00258	0.0371	<0.0002	0.00672	<0.005	<0.001
	6/6/2018	<0.001	<0.002	0.120	<0.001	<0.0005	<0.005	<0.0005	1.020	<0.5	0.00193	0.0321	<0.0002	0.0108	0.00679	<0.001
	10/3/2018	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	<0.5	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
	4/8/2019	N.S.	<0.002	0.121	<0.001	<0.0005	<0.005	N.S.	N.S.	<0.5	0.000527	N.S.	<0.0002	N.S.	<0.005	N.S.
	10/15/2019	<0.001	<0.002	0.145	<0.001	<0.0001	<0.005	<0.0005	0.494	<0.5	<0.0005	0.0408	<0.0002	0.0121	<0.005	<0.001
	1/31/2020	<0.00058	<0.000880	0.118	<0.00027	<0.000039	<0.0011	<0.000091	0.616	<0.5	0.000635	0.0321	<0.0001	0.0123	<0.001	<0.00026
	4/27/2020	<0.00058	<0.000880	0.114	<0.00027	0.0000540J	<0.0011	<0.000091	0.155	0.335J	<0.00027	0.0258	<0.0001	0.0114	<0.001	<0.00026
	7/14/2020	<0.00051	<0.000880	0.118	<0.00027	0.0000680J	<0.0011	0.000122J	0.870	0.232J	0.000482J	0.0309	<0.0001	0.0133	<0.001	<0.00026
	10/5/2020	<0.00051	0.000889J	0.132	<0.00027	0.0000810J	<0.0011	0.000438J	1.310	0.329J	0.000929	0.0362	<0.0001	0.0144	<0.001	<0.00026
	4/12/2021	<0.00110	<0.000750	0.0825	<0.00027	<0.000051	0.001796J	<0.000091	0.436	<0.275	0.000264J	0.0143	<0.00015	0.0207	0.00154J	<0.00026
	10/4/2021	<0.00110	0.000925J	0.133	<0.00027	0.000080J	<0.00110	0.000504	4.990	<0.275	0.000719	0.0345	<0.00015	0.0124	<0.00096	<0.00026
	4/4/2022	0.00123J	0.00118J	0.143	<0.000270	<0.0000550	0.00188J	0.000289J	0.778	<0.220	0.00221	0.0420	<0.000110	0.00630	0.00329J	<0.000260
	10/4/2022	<0.000690	0.00123J	0.146	<0.000270	<0.0000550	<0.00110	0.000724	2.780	<0.220	0.000568	0.0387	<0.000110	0.01370	<0.000960	<0.000260
	4/10/2023	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]	N/S [3]
	10/10/2023	<0.00100	0.00185J	0.157	<0.000330	<0.000100	0.00213J	0.000870	1.30	<0.375	0.00423	0.0455	0.000141J	0.00990	<0.00140	<0.000260
	4/15/2024	<0.00100	0.000552J	0.144	<0.000330	<0.000100	0.00199J	<0.000170	1.08U	<0.375	0.00155	0.0501	<0.000110	0.00767	0.00158J	<0.000570
	10/7/2024	<0.00100	0.000955J	0.175	<0.000330	<0.000100	<0.00120	0.000186J	1.07	1.44	0.00111	0.0524	<0.000110	0.00949	<0.00140	0.000697J

Table 5 - Appendix IV (Assessment Monitoring) Constituents in Groundwater
Omaha Public Power District - NC2 Ash Disposal Area

		Appendix IV (Assessment Monitoring) Constituents														
Constituent		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium (Ra 226 + Ra 228)	Fluoride*	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
Reporting Unit		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
NC2MW-7	3/14/2016	<0.001	0.0994	0.687	<0.001	<0.0005	<0.005	0.000794	1.43	0.312	<0.0005	0.0602	<0.0002	<0.002	<0.005	<0.001
	6/3/2016	<0.001	0.0529	0.591	<0.001	<0.0005	<0.005	<0.0005	1.14	<0.5	0.00166	0.0542	<0.0002	<0.002	<0.005	<0.001
	8/31/2016	<0.001	0.0418	0.526	<0.001	<0.0005	<0.005	0.000681	0.847	<0.5	<0.0005	0.0581	<0.0002	<0.002	<0.005	<0.001
	11/17/2016	<0.001	0.0473	0.544	<0.001	<0.0005	<0.005	<0.0005	0.851	0.544	<0.0005	0.0613	<0.0002	<0.002	<0.005	<0.001
	2/15/2017	<0.001	0.0608	0.558	<0.001	<0.0005	<0.005	0.000639	0.745	<0.5	<0.0005	0.0638	<0.0002	<0.002	<0.005	<0.001
	4/24/2017	<0.001	0.0592	0.614	<0.001	<0.0005	<0.005	0.000629	1.04	1.35	<0.0005	0.0624	<0.0002	<0.002	<0.005	<0.001
	6/15/2017	<0.001	0.0469	0.538	<0.001	<0.0005	<0.005	<0.0005	0.815	<0.5	<0.0005	0.0579	<0.0002	<0.002	<0.005	<0.001
	7/12/2017	<0.001	0.041	0.501	<0.001	<0.0005	<0.005	<0.0005	1.15	<0.5	<0.0005	0.0602	<0.0002	<0.002	<0.005	<0.001
	3/12/2018	<0.001	0.0387	0.473	<0.001	<0.0005	<0.005	<0.0005	1.06	<0.5	<0.0005	0.0546	<0.0002	<0.002	<0.005	<0.001
	6/6/2019	<0.001	0.0418	0.624	<0.001	<0.0005	<0.005	0.000876	0.986	<0.5	0.00069	0.0535	<0.0002	<0.002	<0.005	<0.001
	10/3/2018	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.	0.519	N.S.	N.S.	N.S.	N.S.	N.S.	N.S.
	4/8/2019	N.S.	0.0391	0.565	N.S.	<0.0005	<0.005	N.S.	N.S.	<0.5	<0.0005	N.S.	<0.0002	N.S.	<0.005	N.S.
	9/23/2019	<0.001	0.0416	0.619	<0.001	<0.0001	<0.005	<0.0005	N.S.	<0.5	<0.0005	0.0622	<0.0002	<0.002	<0.005	<0.001
	10/15/2019	<0.001	0.0384	0.597	<0.001	<0.0001	<0.005	<0.0005	0.532	<0.5	<0.0005	0.0633	<0.0002	<0.002	<0.005	<0.001
	2/3/2020	<0.00058	0.0348	0.512	<0.00027	<0.000039	<0.0011	0.000353J	0.615	0.357J	<0.00027	0.0545	<0.0001	0.00163J	<0.001	<0.00026
	4/27/2020	<0.00058	0.0388	0.534	<0.00027	<0.000039	<0.0011	0.000396J	0.722	0.429J	<0.00027	0.0568	<0.0001	0.00185J	<0.001	<0.00026
	7/14/2020	<0.00051	0.0381	0.515	<0.00027	<0.000049	<0.0011	0.000233J	0.804	<0.23	<0.00011	0.0580	<0.0001	0.00170J	<0.001	<0.00026
	10/5/2020	<0.00051	0.0435	0.585	<0.00027	<0.000049	<0.0011	0.000233J	0.71	0.322J	<0.00011	0.0641	<0.0001	0.00122J	<0.001	<0.00026
	4/12/2021	<0.00110	0.0439	0.53	<0.00027	<0.000051	<0.0011	0.000384J	1.05	0.415J	<0.00021	0.0640	<0.00015	0.00195J	<0.00096	<0.00026
	10/4/2021	<0.00110	0.0427	0.592	<0.00027	<0.000051	<0.0011	0.000253J	1.77	<0.275	<0.00021	0.0566	<0.00015	0.00183J	<0.00096	<0.00026
	4/4/2022	<0.000690	0.0487	0.563	<0.000270	<0.0000550	<0.00110	0.000422J	0.747	<0.220	<0.000240	0.0654	<0.000110	0.00159J	<0.000960	<0.000260
	10/3/2022	<0.000690	0.0478	0.607	<0.000270	<0.0000550	<0.00110	0.000236J	1.240	<0.220	<0.000240	0.0572	<0.000110	0.00186J	<0.000960	<0.000260
	4/10/2023	<0.00100	0.0396	0.523	<0.000330	<0.000100	<0.00110	0.000321J	1.91	0.402J	<0.000240	0.0588	<0.000140	0.00177J	<0.00140	<0.000260
	10/10/2023	<0.00100	0.0480	0.618	<0.000330	<0.000100	<0.00110	0.000214J	0.615U	<0.375	<0.000240	0.0617	<0.000140	0.00186J	<0.00140	<0.000260
	4/15/2024	<0.00100	0.0456	0.608	<0.000330	<0.000100	<0.00120	0.000193J	2.05	<0.375	<0.000260	0.0633	<0.000110	0.00173J	<0.00140	<0.000570
	10/7/2024	<0.00100	0.0512	0.580	<0.000330	<0.000100	<0.00120	0.000172J	1.26	<0.375	<0.000260	0.0645	<0.000110	0.00202	<0.00140	0.000802J
NC2MW-8[1]	10/3/2018	<0.001	0.0223	0.617	<0.001	<0.0005	<0.005	0.00250	1.70	0.566	0.00125	0.0347	<0.0002	0.00307	<0.005	<0.001
	1/15/2019	<0.001	0.0177	0.503	<0.001	<0.0005	<0.005	0.00224	0.716	<0.5	<0.0005	0.0292	<0.0002	0.00288	<0.005	<0.001
	3/5/2019	<0.001	0.00716	0.566	<0.001	<0.0005	<0.005	0.00304	N.S.	<0.5	<0.0005	0.0360	<0.0002	0.00304	<0.005	<0.001
	4/8/2019	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]	N/A [2]
	9/23/2019	<0.001	0.0175	0.609	<0.001	<0.0001	<0.005	0.00172	N.S.	0.582	<0.0005	0.0369	<0.0002	0.00327	<0.005	<0.001
	10/16/2019	<0.001	0.0206	0.596	<0.001	<0.0001	<0.005	0.00175	0.735	<0.5	<0.0005	0.0333	<0.0002	0.00347	<0.005	<0.001
	1/31/2020	<0.00058	0.00168J	0.191	<0.00027	0.000160	<0.0011	0.00133	0.445	<0.5	<0.00027	0.0249	<0.0001	<0.0011	<0.001	<0.00026
	4/27/2020	<0.00058	0.0190	0.548	<0.00027	<0.000039	<0.0011	0.00201	0.587	0.504	<0.00027	0.0297	<0.0001	0.00291	<0.001	<0.00026
	7/14/2020	<0.00051	0.0195	0.523	<0.00027	<0.000049	<0.0011	0.00178	0.598	<0.23	0.000201J	0.0306	<0.0001	0.00285	<0.001	<0.00026
	10/5/2020	<0.00051	0.0322	0.579	<0.00027	<0.000049	<0.0011	0.00176	1.24	0.331J	0.000486J	0.0325	<0.0001	0.00220	<0.001	<0.00026
	4/12/2021	<0.00110	0.0108	0.489	<0.00027	0.0000520J	<0.0011	0.0022	0.615	0.393J	0.000490J	0.0340	<0.00015	0.00267	0.00142J	<0.00026
	10/4/2021	<0.00110	0.00958	0.616	<0.00027	<0.000051	<0.0011	0.00229	2.32	<0.275	0.000393J	0.0340	<0.00015	0.00281	<0.00096	<0.00026
	4/4/2022	<0.000690	0.00887	0.552	<0.000270	<0.0000550	<0.00110	0.00264	0.912	<0.220	<0.000240	0.0363	<0.000110	0.00202	<0.000960	<0.000260
	10/3/2022	<0.000690	0.0181	0.618	<0.000270	<0.0000550	<0.00110	0.00230	1.57	<0.220	0.000321J	0.0364	<0.000110	0.00184J	<0.000960	<0.000260
	4/10/2023	<0.00100	0.00971	0.462	<0.000330	<0.000100	<0.00110	0.00219	1.31	0.394J	0.000252J	0.0363	<0.000140	0.00200	<0.00140	<0.000260
	10/10/2023	<0.00100	0.0135	0.534	<0.000330	<0.000100	<0.00110	0.00165	1.92	<0.375	0.000284J	0.0360	<0.000140	<0.000910	0.00198J	<0.000260
	4/15/2024	<0.00100	0.00743	0.480	<0.000330	<0.000100	<0.00120	0.000982	1.10	<0.375	<0.000260	0.0340	<0.000110	<0.00130	<0.00140	<0.000570
	10/7/2024	<0.00100	0.00343	0.564	<0.000330	<0.000100	<0.00120	0.00137	1.29	<0.375	0.000268J	0.0382	<0.000110	0.00178J	<0.00140	0.000859J

N.S. = Not Sampled

For the period of March 2016 through October 2019, the "<" symbol indicates analyte not detected above the Reporting Limit, which is the value shown following the "<" symbol. Starting in January 2020, the symbol indicates analyte not detected above the Method Detection Limit, which is the value shown following the "<" symbol.

"U" data qualifier (radium) indicates parameter was analyzed for but not detected above limiting criteria (such as, but not limited to: minimum detectable concentration; total uncertainty; Reporting Limit) as defined in the analytical laboratory data package.

"J" data qualifier indicates that value is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.

[1] NC2MW-8 was installed July 9, 2018 and was added to the Groundwater Monitoring System Certification in June 2019. The 9/23/2019 sampling event was part of an Alternative Source Demonstration for the Title 132 Groundwater Assessment Report.

[2] MW-13, NC2MW-3, and NC2MW-8 were surrounded by ponding water during April 2019 sampling event and were not sampled. MW-13 was surrounded by ponding water during October 2019 sample and was not sampled.

[3] NC2MW-5 and NC2MW-6 were either dry or had insufficient water volume to collect a water sample during the April 2023 sampling event.

* Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

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Table 6 - Background Threshold Values for Assessment Monitoring
Omaha Public Power District - NC2 Ash Disposal Area

Constituents	Units	Background Threshold Values (BTVs)
Appendix III (Detection Monitoring)		
Boron	mg/l	4.63
Calcium	mg/l	223
Chloride	mg/l	36.6
Fluoride [1]	mg/l	1.89
pH (LPL) [2]	SU	6.33
pH (UPL) [3]	SU	7.87
Sulfate	mg/l	611
TDS	mg/l	1,390
Appendix IV (Assessment Monitoring)		
Antimony[4]	mg/l	0.00200
Arsenic	mg/l	0.0411
Barium	mg/l	0.473
Beryllium	mg/l	0.001
Cadmium	mg/l	0.000500
Chromium	mg/l	0.00500
Cobalt	mg/l	0.00236
Fluoride [1]	mg/l	1.89
Lead	mg/l	0.00360
Lithium	mg/l	0.0427
Mercury	mg/l	0.000200
Molybdenum	mg/l	0.0356
Radium 226 + 228	pCi/l	3.17
Selenium	mg/l	0.0146
Thallium	mg/l	0.00100

Notes:

[1] Fluoride is listed in both Appendix III and Appendix IV of the CCR Final Rule (40 CFR Part 257).

[2] Indicates the lower bound of the range is the lower prediction limit (LPL).

[3] Indicates the upper bound is the upper prediction limit (UPL).

[4] Antimony UPL was previously 0.001 mg/l based on the laboratory's reporting limit (RL). The lab adjusted the RL for antimony to 0.002 mg/l during their annual quality control review. The UPL has been updated to 0.002 mg/l to reflect the change in the laboratory's RL.

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Table 7 - Established Groundwater Protection Standards
Omaha Public Power District - NC2 Ash Disposal Area

Constituents	Units	Established Groundwater Protection Standard (GWPS)[1]
Appendix IV (Assessment Monitoring)		
Antimony	mg/l	0.006
Arsenic	mg/l	0.0411 [2]
Barium	mg/l	2.0
Beryllium	mg/l	0.004
Cadmium	mg/l	0.005
Chromium	mg/l	0.1
Cobalt	mg/l	0.006
Flouride	mg/l	4
Lead	mg/l	0.015
Lithium	mg/l	0.0427 [2]
Mercury	mg/l	0.002
Molybdenum	mg/l	0.1
Radium 226 + 228	pCi/l	5
Selenium	mg/l	0.05
Thallium	mg/l	0.002

Notes:

[1] GWPS is established as the U.S. EPA Maximum Contaminant Level (MCL) or the GWPS specified in §257.95(h)(2); unless otherwise specified.

[2] GWPS is established as the upper prediction limit (UPL) when the background level is higher than the U.S. EPA MCL or the GWPS specified in §257.95(h)(2).

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Appendix A

Field Sampling Forms

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NEBRASKA CITY STATION

Water Levels Prior to Purging (Feet Below TOC)

NC1MW2	Date of Sampling	4/11/2024	Time of Sampling	14:07	Static Water Level	13.27
NC1MW3	Date of Sampling	4/11/2024	Time of Sampling	14:34	Static Water Level	13.56
NC1MW4	Date of Sampling	4/11/2024	Time of Sampling	14:10	Static Water Level	13.74
NC1MW5	Date of Sampling	4/11/2024	Time of Sampling	14:22	Static Water Level	15.21
NC1MW6	Date of Sampling	4/11/2024	Time of Sampling	14:17	Static Water Level	11.39
NC1MW7	Date of Sampling	4/11/2024	Time of Sampling	13:54	Static Water Level	12.73
NC1MW8	Date of Sampling	4/11/2024	Time of Sampling	13:52	Static Water Level	13.04
NC1MW9	Date of Sampling	4/11/2024	Time of Sampling	14:41	Static Water Level	13.87
NC2MW2	Date of Sampling	4/11/2024	Time of Sampling	13:42	Static Water Level	15.42
NC2MW3	Date of Sampling	4/11/2024	Time of Sampling	13:34	Static Water Level	13.55
NC2MW4	Date of Sampling	4/11/2024	Time of Sampling	13:08	Static Water Level	11.98
NC2MW5	Date of Sampling	4/11/2024	Time of Sampling	13:20	Static Water Level	15.02
NC2MW6	Date of Sampling	4/11/2024	Time of Sampling	13:25	Static Water Level	12.30
NC2MW7	Date of Sampling	4/11/2024	Time of Sampling	13:49	Static Water Level	11.47
NC2MW8	Date of Sampling	4/11/2024	Time of Sampling	13:39	Static Water Level	10.98
MW11	Date of Sampling	4/11/2024	Time of Sampling	13:59	Static Water Level	11.77
MW12	Date of Sampling	4/11/2024	Time of Sampling	14:02	Static Water Level	13.72
MW13	Date of Sampling	4/11/2024	Time of Sampling	13:03	Static Water Level	10.25
MW14	Date of Sampling	4/11/2024	Time of Sampling	13:13	Static Water Level	13.57

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW2 - 7**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 82°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	15:51	Pump Start Time	15:53
Static Water Level (+/- 0.01 feet)*	15.27	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	17.61	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	1.44		
Actual Volume of Water Purged (mL)	3,400		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
15:58	1,000	19.95	2.62	24.7	6.51	1.61	Top of Pump
16:01	1,600	18.70	1.22	26.8	6.43	1.75	Top of Pump
16:04	2,200	17.12	0.00	20.6	6.42	1.81	Top of Pump
16:07	2,800	17.04	0.00	17.8	6.42	1.83	Top of Pump
16:10	3,400	17.09	0.00	15.9	6.44	1.84	Top of Pump

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
16:10	3,400	17.09	0.00	15.9	6.44	1.84	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13

Notes / Unusual Occurrences: None

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW3 - 5**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, Windy, 80°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:11	Pump Start Time	13:13
Static Water Level (+/- 0.01 feet)*	12.70	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	18.35	Time to Purge Well (hours:minutes)	0:20
Pump Intake Elevation (+/- 0.01 feet)*	901.85	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	3.49		
Actual Volume of Water Purged (mL)	3,000		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:18	750	20.12	6.00	28.7	6.77	1.38	13.03
13:21	1,200	18.22	5.72	41.9	6.76	1.45	13.07
13:24	1,650	17.21	5.00	37.4	6.76	1.48	13.07
13:27	2,100	17.13	4.95	21.7	6.76	1.49	13.07
13:30	2,550	17.10	4.92	28.4	6.76	1.49	13.07
13:33	3,000	17.09	4.88	22.6	6.76	1.50	13.07

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:33	3,000	17.09	4.88	22.6	6.76	1.50	13.07
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics / **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW4 - 2**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 66°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	9:55	Pump Start Time	10:00
Static Water Level (+/- 0.01 feet)*	12.02	Purge Rate (mL/minute)	100-150
Bottom of Well Casing (+/- 0.01 feet)*	14.50	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	1.53		
Actual Volume of Water Purged (mL)	1,950		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:05	750	13.82	7.80	55.1	6.31	0.907	13.45
10:08	1,050	13.91	7.74	57.4	6.30	0.912	14.10
10:11	1,350	13.82	7.76	79.6	6.29	0.912	Top of Pump
10:14	1,650	13.80	7.70	42.7	6.31	0.913	Top of Pump
10:17	1,950	13.77	7.67	73.6	6.32	0.914	Top of Pump

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:17	1,950	13.77	7.67	73.6	6.32	0.914	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Mostly Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Light Brown	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13

Notes / Unusual Occurrences: Well Began Purging Dry, Sampled at 10:17

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW5 - 3**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Windy, 69°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	10:56	Pump Start Time	10:57
Static Water Level (+/- 0.01 feet)*	Top of Pump	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	15.80	Time to Purge Well (hours:minutes)	0:08
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	Not Measured		
Actual Volume of Water Purged (mL)	800		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:02	500	17.46	5.82	38.1	6.48	1.23	Top of Pump
11:05	800	17.91	5.50	35.4	6.45	1.27	Top of Pump

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:05	800	17.91	5.50	35	6.45	1.27	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	None	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13

Notes / Unusual Occurrences: Purging Dry, Sampled at 11:05

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW6 - 4**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, Windy, 73°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:52	Pump Start Time	11:54
Static Water Level (+/- 0.01 feet)*	Top of Pump	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	14.50	Time to Purge Well (hours:minutes)	0:11
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	Not Measured		
Actual Volume of Water Purged (mL)	1,100		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:59	500	20.67	4.16	22.2	6.57	1.05	Top of Pump
12:02	800	20.42	4.22	14.3	6.55	1.04	Top of Pump
12:05	1,100	20.37	4.24	10.9	6.56	1.04	Top of Pump

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
12:05	1,100	20.37	4.24	10.9	6.56	1.04	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	None	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13

Notes / Unusual Occurrences: Well Pumped Dry During Sampling - Collected Remaining Sample Later

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW7 - 8**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Mostly Cloudy, Sunny, Windy, 84°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	17:17	Pump Start Time	17:18
Static Water Level (+/- 0.01 feet)*	11.32	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	24.10	Time to Purge Well (hours:minutes)	0:32
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	7.89		
Actual Volume of Water Purged (mL)	3,200		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
17:23	500	18.60	6.19	286	6.92	0.968	11.32
17:26	800	18.00	5.36	192	7.15	0.958	11.32
17:29	1,100	17.70	4.80	155	7.31	0.954	11.32
17:32	1,400	17.64	4.29	127	7.28	0.956	11.32
17:35	1,700	17.63	3.74	92.7	7.22	0.954	11.32
17:38	2,000	17.58	3.54	70.9	7.12	0.956	11.32
17:41	2,300	17.38	3.27	58.7	7.12	0.958	11.32
17:44	2,600	17.27	3.02	47.9	7.13	0.962	11.32
17:47	2,900	17.39	2.97	33.4	7.14	0.964	11.32
17:50	3,200	17.39	2.94	24.6	7.13	0.965	11.32

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
17:50	3,200	17.39	2.94	24.6	7.13	0.965	11.32
Duplicate?	Yes, DUP2	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics		**Equipment Information**	
Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW8 - 6**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, Windy, 80°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:59	Pump Start Time	14:00
Static Water Level (+/- 0.01 feet)*	10.90	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	15.60	Time to Purge Well (hours:minutes)	0:41
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	2.90		
Actual Volume of Water Purged (mL)	6,150		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:05	750	14.93	8.73	727	6.92	0.813	10.90
14:08	1,200	16.74	7.84	459	6.80	0.819	10.90
14:11	1,650	16.67	7.44	227	6.86	0.808	10.90
14:14	2,100	16.89	7.45	167	6.84	0.806	10.90
14:17	2,550	16.77	7.52	134	6.80	0.807	10.90
14:20	3,000	16.94	7.56	127	6.79	0.804	10.90
14:23	3,450	16.59	7.66	117	6.78	0.807	10.90
14:26	3,900	16.48	7.54	75.7	6.77	0.806	10.90
14:29	4,350	16.69	7.67	60.4	6.78	0.804	10.90
14:32	4,800	16.75	7.70	54.2	6.79	0.805	10.90
14:35	5,250	16.84	7.59	61.4	6.79	0.803	10.90
14:38	5,700	16.90	7.52	63.6	6.80	0.801	10.90
14:41	6,150	16.95	7.46	63.7	6.80	0.800	10.90

Well Evacuated to Dryness? No Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:41	6,150	16.95	7.46	63.7	6.80	0.800	10.90
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics / **Equipment Information**

Sample Clarity	Mostly Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Light Brown	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:13

Notes / Unusual Occurrences: Suspended Sand in Sample

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Megan B. Seymour (79678)
Monitoring Well Identification - Sample Number: **MW13 - 1**	Date: 4/15/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 60°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	9:24	Pump Start Time	9:25
Static Water Level (+/- 0.01 feet)*	Top of Pump	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	15.19	Time to Purge Well (hours:minutes)	0:25
Pump Intake Elevation (+/- 0.01 feet)*	908.30	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	Not Measured		
Actual Volume of Water Purged (mL)	5,250		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
9:30	750	13.33	6.40	68.5	6.89	0.954	Top of Pump
9:33	1,200	12.84	9.84	53.3	6.90	0.952	Top of Pump
9:36	2,400	12.90	9.91	32.2	6.87	0.942	Top of Pump
9:39	3,600	12.90	9.60	31.3	6.94	0.942	Top of Pump
9:41	3,900	12.77	9.30	27.5	6.99	0.944	Top of Pump
9:44	4,350	12.54	10.00	25.5	7.00	0.944	Top of Pump
9:47	4,800	12.72	9.99	19.7	6.98	0.944	Top of Pump
9:50	5,250	12.75	9.95	20.0	7.02	0.945	Top of Pump

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
9:50	5,250	12.75	9.95	20.0	7.02	0.945	Top of Pump
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	4/15/2024, 7:17
Notes / Unusual Occurrences: None			

Equipment Calibration Sheet

Date: 4/15/2024
Time: 7:13

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multi-Parameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	NA
Conductivity	4.46	µS/cm
Turbidity	0.0	NTU
DO	9.99	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

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NEBRASKA CITY STATION

Water Levels Prior to Purging (Feet Below TOC)

NC1MW2	Date of Sampling	10/4/2024	Time of Sampling	9:34	Static Water Level	11.19
NC1MW3	Date of Sampling	10/4/2024	Time of Sampling	10:04	Static Water Level	11.68
NC1MW4	Date of Sampling	10/4/2024	Time of Sampling	9:37	Static Water Level	11.82
NC1MW5	Date of Sampling	10/4/2024	Time of Sampling	9:49	Static Water Level	13.58
NC1MW6	Date of Sampling	10/4/2024	Time of Sampling	9:44	Static Water Level	9.84
NC1MW7	Date of Sampling	10/4/2024	Time of Sampling	9:15	Static Water Level	10.54
NC1MW8	Date of Sampling	10/4/2024	Time of Sampling	9:14	Static Water Level	10.85
NC1MW9	Date of Sampling	10/4/2024	Time of Sampling	10:09	Static Water Level	11.92
NC2MW2	Date of Sampling	10/4/2024	Time of Sampling	9:04	Static Water Level	13.44
NC2MW3	Date of Sampling	10/4/2024	Time of Sampling	8:56	Static Water Level	10.90
NC2MW4	Date of Sampling	10/4/2024	Time of Sampling	8:17	Static Water Level	10.13
NC2MW5	Date of Sampling	10/4/2024	Time of Sampling	8:43	Static Water Level	12.95
NC2MW6	Date of Sampling	10/4/2024	Time of Sampling	8:49	Static Water Level	10.31
NC2MW7	Date of Sampling	10/4/2024	Time of Sampling	9:13	Static Water Level	9.34
NC2MW8	Date of Sampling	10/4/2024	Time of Sampling	8:59	Static Water Level	9.13
MW11	Date of Sampling	10/4/2024	Time of Sampling	9:24	Static Water Level	9.91
MW12	Date of Sampling	10/4/2024	Time of Sampling	9:28	Static Water Level	11.79
MW13	Date of Sampling	10/4/2024	Time of Sampling	8:14	Static Water Level	8.24
MW14	Date of Sampling	10/4/2024	Time of Sampling	8:23	Static Water Level	12.35

NOTES:

TOC = Top of Casing

NM = Not Measured, Inaccessible

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW2 - 7**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	16:49	Pump Start Time	16:50
Static Water Level (+/- 0.01 feet)*	13.37	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	17.61	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	2.62		
Actual Volume of Water Purged (mL)	2,550		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
16:55	750	18.02	5.10	10.0	6.44	1.66	13.82
16:58	1,200	17.76	5.02	7.1	6.50	1.70	13.94
17:01	1,650	17.66	4.93	8.4	6.58	1.70	14.02
17:04	2,100	17.61	4.76	10.2	6.60	1.70	14.05
17:07	2,550	17.55	4.71	9.3	6.62	1.70	14.06

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
17:07	2,550	17.55	4.71	9.3	6.62	1.70	14.06
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW3 - 5**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	15:29	Pump Start Time	15:32
Static Water Level (+/- 0.01 feet)*	10.80	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	18.35	Time to Purge Well (hours:minutes)	0:14
Pump Intake Elevation (+/- 0.01 feet)*	901.85	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	4.66		
Actual Volume of Water Purged (mL)	2,800		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
15:37	1,000	18.72	0.65	20.7	6.68	1.72	11.42
15:40	1,600	18.61	0.08	15.4	6.72	1.72	11.43
15:43	2,200	18.40	0.00	13.0	6.75	1.73	11.43
15:46	2,800	18.46	0.00	10.4	6.76	1.74	11.43

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
15:46	2,800	18.46	0.00	10.4	6.76	1.74	11.43
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Sulfur	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW4 - 2**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 55°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	11:00	Pump Start Time	11:02
Static Water Level (+/- 0.01 feet)*	10.11	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	14.50	Time to Purge Well (hours:minutes)	0:14
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	2.71		
Actual Volume of Water Purged (mL)	1,400		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:07	500	16.80	0.69	30.4	7.10	0.962	10.55
11:10	800	16.85	0.27	20.9	6.98	0.957	10.67
11:13	1,100	16.85	0.29	11.9	6.92	0.951	10.83
11:16	1,400	16.89	0.32	8.8	6.90	0.950	10.96

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
11:16	1,400	16.89	0.32	8.8	6.90	0.950	10.96
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW5 - 3**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 66°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	13:24	Pump Start Time	13:25
Static Water Level (+/- 0.01 feet)*	12.90	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	15.80	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	1.79		
Actual Volume of Water Purged (mL)	1,700		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:30	500	20.72	2.72	7.8	7.13	1.81	13.27
13:33	800	20.84	1.64	7.9	6.98	1.94	13.33
13:36	1,100	20.86	0.96	10.8	6.95	2.02	13.40
13:39	1,400	20.79	0.93	11.0	6.95	2.03	13.42
13:42	1,700	20.82	0.94	10.9	6.95	2.04	13.44

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
13:42	1,700	20.82	0.94	10.9	6.95	2.04	13.44
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	None	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW6 - 4**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 71°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	14:30	Pump Start Time	14:32
Static Water Level (+/- 0.01 feet)*	10.31	Purge Rate (mL/minute)	100
Bottom of Well Casing (+/- 0.01 feet)*	14.50	Time to Purge Well (hours:minutes)	0:14
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	2.59		
Actual Volume of Water Purged (mL)	1,400		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:37	500	22.27	0.84	60.6	7.10	1.17	10.53
14:40	800	21.00	0.49	23.2	7.00	1.14	10.59
14:43	1,100	20.83	0.44	17.4	6.99	1.13	10.64
14:46	1,400	20.72	0.39	15.5	6.98	1.12	10.68

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
14:46	1,400	20.72	0.39	15.5	6.98	1.12	10.68
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		100

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	None	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW7 - 8**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	17:31	Pump Start Time	17:33
Static Water Level (+/- 0.01 feet)*	9.33	Purge Rate (mL/minute)	200
Bottom of Well Casing (+/- 0.01 feet)*	24.10	Time to Purge Well (hours:minutes)	0:26
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	9.12		
Actual Volume of Water Purged (mL)	5,200		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
17:38	1,000	18.10	0.00	103	7.00	1.03	9.33
17:41	1,600	17.84	0.00	97.3	6.83	0.990	9.33
17:44	2,200	17.53	0.00	67.8	6.96	0.983	9.33
17:47	2,800	17.46	0.00	57.0	6.98	0.984	9.33
17:50	3,400	17.34	0.00	46.3	6.99	0.984	9.33
17:53	4,000	17.20	0.00	34.6	7.03	0.983	9.33
17:56	4,600	17.16	0.00	27.7	7.05	0.982	9.33
17:59	5,200	17.12	0.00	22.3	7.06	0.982	9.33

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
17:59	5,200	17.12	0.00	22.3	7.06	0.982	9.33
Duplicate?	Yes, DUP2	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		200

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW8 - 6**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Partly Cloudy, Sunny, 72°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	16:07	Pump Start Time	16:09
Static Water Level (+/- 0.01 feet)*	9.04	Purge Rate (mL/minute)	150
Bottom of Well Casing (+/- 0.01 feet)*	15.60	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	Not Measured	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	4.05		
Actual Volume of Water Purged (mL)	2,550		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
16:14	750	18.94	1.13	102	7.56	0.985	9.04
16:17	1,200	17.77	0.24	67.4	7.49	0.960	9.04
16:20	1,650	17.61	0.00	22.7	7.18	0.954	9.04
16:23	2,100	17.43	0.00	15.7	7.12	0.951	9.04
16:26	2,550	17.36	0.00	10.6	7.09	0.951	9.04

Well Evacuated to Dryness? No

Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
16:26	2,550	17.36	0.00	10.6	7.09	0.951	9.04
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		150

Sample Physical Characteristics		**Equipment Information**	
Sample Clarity	Mostly Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Light Brown	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53

Notes / Unusual Occurrences: Suspended Sand in Sample

Field Notes For Monitoring Well Sampling

Facility Name: OPPD Nebraska City Station 2	Sampler Name(s): Kyle K. Uhing (29481)
Monitoring Well Identification - Sample Number: **MW13 - 1**	Date: 10/7/2024
Wellhead Inspection (Condition): Compliant	Weather Conditions: Clear, Sunny, 54°F

Groundwater Measurements and Purge Data

Time of Water Level Measurement	10:18	Pump Start Time	10:23
Static Water Level (+/- 0.01 feet)*	8.27	Purge Rate (mL/minute)	250
Bottom of Well Casing (+/- 0.01 feet)*	15.19	Time to Purge Well (hours:minutes)	0:17
Pump Intake Elevation (+/- 0.01 feet)*	908.30	Purge and Sample Equipment: Dedicated Bladder Pump with QED Flow Controller and Nitrogen Gas, Graduated Measuring Bucket and Cup, Multi-Parameter Water Meter, and Electronic Water Level Indicator	
2" Well Casing Volume (L)	4.27		
Actual Volume of Water Purged (mL)	4,250		

*Measurement collected from a defined point on the edge of the surveyed top of monitoring well casing using an electronic water level indicator.

Groundwater Parameter Data

Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:28	1,250	17.04	0.33	21.6	7.11	0.981	8.27
10:31	2,000	16.63	0.08	21.4	7.03	0.997	8.27
10:34	2,750	16.60	0.00	27.3	6.98	0.998	8.27
10:37	3,500	16.52	0.00	24.7	6.96	0.997	8.27
10:40	4,250	16.43	0.00	19.4	6.96	0.996	8.27

Well Evacuated to Dryness? Yes Recharge time? Not Measured

Groundwater Sample Information

Sample Time	Volume Purged (mL)	Temperature (°C)	DO (mg/L)	Turbidity (NTU)	pH	Conductivity (mS/cm)	Water Level (feet)
10:40	4,250	16.43	0.00	19.4	6.96	0.996	8.27
Duplicate?	No	Preservation?	Cool on Ice, HNO_3 for Metals		Pump Rate (mL/minute)		250

Sample Physical Characteristics **Equipment Information**

Sample Clarity	Clear	QED Pump Control Information	CPM-2, 27/3, ~20 psi
Sample Color	Clear	Decontamination Procedure	Alconox and DI Water Rinse
Sample Odor	Odorless	Instrument Calibration By	Kyle K. Uhing
Immiscible Layer Observed? If so, thickness?	No	Date and Time of Calibration	10/7/2024, 8:53
Notes / Unusual Occurrences: None			

Equipment Calibration Sheet

Date: 10/7/2024
Time: 8:53

Person Calibrating Instrument: Kyle K. Uhing

Instrument Type	Instrument Brand	Instrument Model	Instrument Serial Number
Multi-Parameter Water Meter	Horiba	U-5000/U-52	KE3AGWPR/NTKDC76Y

Parameter:	Reading	Units
pH 4	4.00	NA
Conductivity	4.47	µS/cm
Turbidity	0.0	NTU
DO	9.87	mg/L

Comments:

The Horiba was calibrated using pH 4.0 AutoCal buffer solution.

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Appendix B

Laboratory Analytical Reports

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eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 4/30/2024 4:14:09 PM

JOB DESCRIPTION

Nebraska City Unit 2 CCR / Landfill

JOB NUMBER

310-279198-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

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Job Notes

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Authorization

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Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-279198-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/17/2024 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were -0.4°C and 0.4°C.

Receipt Exceptions
One container for the following sample was received empty: But there is still enough volume from the other containers to run the requested analsis. NC2MW6 (310-279198-4).

Affected container:
D-4

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: NC2MW2 (310-279198-1), NC2MW5 (310-279198-3), NC2MW6 (310-279198-4), NC2MW7 (310-279198-5), NC2MW8 (310-279198-6) and DUP2 (310-279198-7). Elevated reporting limits (RLs) are provided.

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

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279198-1	NC2MW2	Water	04/15/24 16:10	04/17/24 16:40
310-279198-2	NC2MW3	Water	04/15/24 13:33	04/17/24 16:40
310-279198-3	NC2MW5	Water	04/15/24 11:05	04/17/24 16:40
310-279198-4	NC2MW6	Water	04/15/24 12:05	04/17/24 16:40
310-279198-5	NC2MW7	Water	04/15/24 17:50	04/17/24 16:40
310-279198-6	NC2MW8	Water	04/15/24 14:41	04/17/24 16:40
310-279198-7	DUP2	Water	04/15/24 00:00	04/17/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW2 — Lab Sample ID: 310-279198-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35.3		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	719		20.0	8.40	mg/L	20		9056A	Total/NA
Antimony	0.00261		0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.000969	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0880		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.602		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000137	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	328		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000395	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000905		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0253		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0245		0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00994		0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1350		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW3 — Lab Sample ID: 310-279198-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.42		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.844	J	1.00	0.375	mg/L	5		9056A	Total/NA
Sulfate	355		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00157	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0666		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.384		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	198		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000531		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000338	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0337		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00414		0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00209	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Thallium	0.000638	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1030		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW5 — Lab Sample ID: 310-279198-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	16.5		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	290		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00221		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0672		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	3.00		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	198		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000280	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000846		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0167		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0246		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	934		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW6 — Lab Sample ID: 310-279198-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.41		5.00	2.25	mg/L	5		9056A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW6 (Continued) — Lab Sample ID: 310-279198-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	129		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.000552	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.144		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	1.98		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	142		0.500	0.190	mg/L	1		6020B	Total/NA
Chromium	0.00199	J	0.00500	0.00120	mg/L	1		6020B	Total/NA
Lead	0.00155		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0501		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00767		0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00158	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	610		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW7 — Lab Sample ID: 310-279198-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.91		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	4.70	J	5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0456		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.608		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.176		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	123		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000193	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0633		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00173	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	464		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW8 — Lab Sample ID: 310-279198-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	9.30		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	58.9		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00743		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.480		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.101		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	114		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000982		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0340		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	418		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP2 — Lab Sample ID: 310-279198-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10.0		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	4.42	J	5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0448		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.594		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.167		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	121		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000188	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0615		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00168	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	496		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW2
Lab Sample ID: 310-279198-1
Date Collected: 04/15/24 16:10
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**35.3**		5.00	2.25	mg/L			04/19/24 16:45	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 16:45	5
Sulfate	**719**		20.0	8.40	mg/L			04/20/24 12:34	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	**0.00261**		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 13:55	1
Arsenic	**0.000969**	**J**	0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 13:55	1
Barium	**0.0880**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 13:55	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 13:55	1
Boron	**0.602**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 13:55	1
Cadmium	**0.000137**	**J**	0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 13:55	1
Calcium	**328**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 13:55	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 13:55	1
Cobalt	**0.000395**	**J**	0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 13:55	1
Lead	**0.000905**		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 13:55	1
Lithium	**0.0253**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 13:55	1
Molybdenum	**0.0245**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 13:55	1
Selenium	**0.00994**		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 13:55	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 13:55	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:43	04/26/24 15:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1350**		50.0	42.0	mg/L			04/18/24 18:19	1

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW3
Lab Sample ID: 310-279198-2

Date Collected: 04/15/24 13:33
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.42**		5.00	2.25	mg/L			04/19/24 16:58	5
Fluoride	**0.844**	**J**	1.00	0.375	mg/L			04/19/24 16:58	5
Sulfate	**355**		5.00	2.10	mg/L			04/19/24 16:58	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:05	1
Arsenic	**0.00157**	**J**	0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:05	1
Barium	**0.0666**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:05	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:05	1
Boron	**0.384**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:05	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:05	1
Calcium	**198**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:05	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:05	1
Cobalt	**0.000531**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:05	1
Lead	**0.000338**	**J**	0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:05	1
Lithium	**0.0337**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:05	1
Molybdenum	**0.00414**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:05	1
Selenium	**0.00209**	**J**	0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:05	1
Thallium	**0.000638**	**J**	0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:05	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:43	04/26/24 15:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1030**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW5
Lab Sample ID: 310-279198-3
Date Collected: 04/15/24 11:05
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.5**		5.00	2.25	mg/L			04/19/24 17:10	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 17:10	5
Sulfate	**290**		5.00	2.10	mg/L			04/19/24 17:10	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:07	1
Arsenic	**0.00221**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:07	1
Barium	**0.0672**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:07	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:07	1
Boron	**3.00**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:07	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:07	1
Calcium	**198**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:07	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:07	1
Cobalt	**0.000280**	**J**	0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:07	1
Lead	**0.000846**		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:07	1
Lithium	**0.0167**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:07	1
Molybdenum	**0.0246**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:07	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:07	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:07	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:43	04/26/24 15:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**934**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW6
Lab Sample ID: 310-279198-4
Date Collected: 04/15/24 12:05
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.41**		5.00	2.25	mg/L			04/19/24 17:23	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 17:23	5
Sulfate	**129**		5.00	2.10	mg/L			04/19/24 17:23	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:09	1
Arsenic	**0.000552**	**J**	0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:09	1
Barium	**0.144**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:09	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:09	1
Boron	**1.98**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:09	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:09	1
Calcium	**142**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:09	1
Chromium	**0.00199**	**J**	0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:09	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:09	1
Lead	**0.00155**		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:09	1
Lithium	**0.0501**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:09	1
Molybdenum	**0.00767**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:09	1
Selenium	**0.00158**	**J**	0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:09	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:09	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 11:01	04/30/24 10:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**610**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW7
Lab Sample ID: 310-279198-5
Date Collected: 04/15/24 17:50
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.91**		5.00	2.25	mg/L			04/19/24 17:35	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 17:35	5
Sulfate	**4.70**	**J**	5.00	2.10	mg/L			04/19/24 17:35	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:20	1
Arsenic	**0.0456**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:20	1
Barium	**0.608**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:20	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:20	1
Boron	**0.176**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:20	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:20	1
Calcium	**123**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:20	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:20	1
Cobalt	**0.000193**	**J**	0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:20	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:20	1
Lithium	**0.0633**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:20	1
Molybdenum	**0.00173**	**J**	0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:20	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:20	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 11:01	04/30/24 10:30	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**464**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW8
Lab Sample ID: 310-279198-6
Date Collected: 04/15/24 14:41
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.30**		5.00	2.25	mg/L			04/19/24 17:48	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 17:48	5
Sulfate	**58.9**		5.00	2.10	mg/L			04/19/24 17:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:22	1
Arsenic	**0.00743**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:22	1
Barium	**0.480**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:22	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:22	1
Boron	**0.101**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:22	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:22	1
Calcium	**114**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:22	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:22	1
Cobalt	**0.000982**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:22	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:22	1
Lithium	**0.0340**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:22	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:22	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:22	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:22	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 11:01	04/30/24 10:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**418**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: DUP2

Lab Sample ID: 310-279198-7

Date Collected: 04/15/24 00:00

Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.0**		5.00	2.25	mg/L			04/19/24 18:01	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 18:01	5
Sulfate	**4.42**	**J**	5.00	2.10	mg/L			04/19/24 18:01	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:24	1
Arsenic	**0.0448**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:24	1
Barium	**0.594**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:24	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:24	1
Boron	**0.167**		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:24	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:24	1
Calcium	**121**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:24	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:24	1
Cobalt	**0.000188**	**J**	0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:24	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:24	1
Lithium	**0.0615**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:24	1
Molybdenum	**0.00168**	**J**	0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:24	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:24	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:24	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 11:01	04/30/24 10:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**496**		50.0	42.0	mg/L			04/18/24 18:19	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Qualifiers

HPLC/IC

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

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-419465/3
Matrix: Water
Analysis Batch: 419465

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			04/19/24 10:38	1
Fluoride	<0.0750		0.200	0.0750	mg/L			04/19/24 10:38	1
Sulfate	<0.420		1.00	0.420	mg/L			04/19/24 10:38	1

Lab Sample ID: LCS 310-419465/4
Matrix: Water
Analysis Batch: 419465

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.895		mg/L		99	90 - 110
Fluoride	2.00	2.078		mg/L		104	90 - 110
Sulfate	10.0	10.69		mg/L		107	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-419190/1-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 13:50	1
Barium	<0.000660		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 13:50	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 13:50	1
Boron	<0.0760		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Calcium	<0.190		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 13:50	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lithium	<0.00250		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 13:50	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 13:50	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 13:50	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 13:50	1

Lab Sample ID: LCS 310-419190/2-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2143		mg/L		107	80 - 120
Arsenic	0.200	0.2070		mg/L		104	80 - 120
Barium	0.100	0.1073		mg/L		107	80 - 120
Beryllium	0.100	0.1004		mg/L		100	80 - 120
Boron	0.200	0.2022		mg/L		101	80 - 120
Cadmium	0.100	0.1012		mg/L		101	80 - 120
Calcium	2.00	1.910		mg/L		95	80 - 120
Chromium	0.100	0.09635		mg/L		96	80 - 120
Cobalt	0.100	0.1096		mg/L		110	80 - 120

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

Lab Sample ID: LCS 310-419190/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 419931
Prep Batch: 419190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.2098		mg/L		105	80 - 120
Lithium	0.200	0.2099		mg/L		105	80 - 120
Molybdenum	0.200	0.1991		mg/L		100	80 - 120
Selenium	0.400	0.3979		mg/L		99	80 - 120
Thallium	0.100	0.1094		mg/L		109	80 - 120

Lab Sample ID: 310-279198-1 MS
Client Sample ID: NC2MW2
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 419931
Prep Batch: 419190

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.00261		0.200	0.2185		mg/L		108	75 - 125
Arsenic	0.000969	J	0.200	0.2145		mg/L		107	75 - 125
Barium	0.0880		0.100	0.1915		mg/L		104	75 - 125
Beryllium	<0.000330		0.100	0.1061		mg/L		106	75 - 125
Boron	0.602		0.200	0.7996		mg/L		99	75 - 125
Cadmium	0.000137	J	0.100	0.09871		mg/L		99	75 - 125
Calcium	328		2.00	319.0	4	mg/L		-473	75 - 125
Chromium	<0.00120		0.100	0.09681		mg/L		97	75 - 125
Cobalt	0.000395	J	0.100	0.1085		mg/L		108	75 - 125
Lead	0.000905		0.200	0.2084		mg/L		104	75 - 125
Lithium	0.0253		0.200	0.2400		mg/L		107	75 - 125
Molybdenum	0.0245		0.200	0.2389		mg/L		107	75 - 125
Selenium	0.00994		0.400	0.4212		mg/L		103	75 - 125
Thallium	<0.000570		0.100	0.1083		mg/L		108	75 - 125

Lab Sample ID: 310-279198-1 MSD
Client Sample ID: NC2MW2
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 419931
Prep Batch: 419190

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.00261		0.200	0.2109		mg/L		104	75 - 125	4	20
Arsenic	0.000969	J	0.200	0.2118		mg/L		105	75 - 125	1	20
Barium	0.0880		0.100	0.1883		mg/L		100	75 - 125	2	20
Beryllium	<0.000330		0.100	0.1072		mg/L		107	75 - 125	1	20
Boron	0.602		0.200	0.8137		mg/L		106	75 - 125	2	20
Cadmium	0.000137	J	0.100	0.09658		mg/L		96	75 - 125	2	20
Calcium	328		2.00	315.9	4	mg/L		-625	75 - 125	1	20
Chromium	<0.00120		0.100	0.09533		mg/L		95	75 - 125	2	20
Cobalt	0.000395	J	0.100	0.1080		mg/L		108	75 - 125	0	20
Lead	0.000905		0.200	0.2031		mg/L		101	75 - 125	3	20
Lithium	0.0253		0.200	0.2423		mg/L		109	75 - 125	1	20
Molybdenum	0.0245		0.200	0.2420		mg/L		109	75 - 125	1	20
Selenium	0.00994		0.400	0.4172		mg/L		102	75 - 125	1	20
Thallium	<0.000570		0.100	0.1056		mg/L		106	75 - 125	2	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-419710/1-A
Matrix: Water
Analysis Batch: 420030

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419710

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:43	04/26/24 14:53	1

Lab Sample ID: LCS 310-419710/2-A
Matrix: Water
Analysis Batch: 420030

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419710

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001619		mg/L		97	80 - 120

Lab Sample ID: 310-279198-3 DU
Matrix: Water
Analysis Batch: 420030

Client Sample ID: NC2MW5
Prep Type: Total/NA
Prep Batch: 419710

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.000110		<0.000110		mg/L		NC	20

Lab Sample ID: MB 310-419713/1-A
Matrix: Water
Analysis Batch: 420265

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419713

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 11:01	04/30/24 09:37	1

Lab Sample ID: LCS 310-419713/2-A
Matrix: Water
Analysis Batch: 420265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419713

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001527		mg/L		92	80 - 120

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

Lab Sample ID: MB 310-419200/1
Matrix: Water
Analysis Batch: 419200

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42.0		50.0	42.0	mg/L			04/18/24 18:19	1

Lab Sample ID: LCS 310-419200/2
Matrix: Water
Analysis Batch: 419200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	948.0		mg/L		95	90 - 110

HPLC/IC

Analysis Batch: 419465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	9056A	
310-279198-1	NC2MW2	Total/NA	Water	9056A	
310-279198-2	NC2MW3	Total/NA	Water	9056A	
310-279198-3	NC2MW5	Total/NA	Water	9056A	
310-279198-4	NC2MW6	Total/NA	Water	9056A	
310-279198-5	NC2MW7	Total/NA	Water	9056A	
310-279198-6	NC2MW8	Total/NA	Water	9056A	
310-279198-7	DUP2	Total/NA	Water	9056A	
MB 310-419465/3	Method Blank	Total/NA	Water	9056A	
LCS 310-419465/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 419190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	3005A	
310-279198-2	NC2MW3	Total/NA	Water	3005A	
310-279198-3	NC2MW5	Total/NA	Water	3005A	
310-279198-4	NC2MW6	Total/NA	Water	3005A	
310-279198-5	NC2MW7	Total/NA	Water	3005A	
310-279198-6	NC2MW8	Total/NA	Water	3005A	
310-279198-7	DUP2	Total/NA	Water	3005A	
MB 310-419190/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-279198-1 MS	NC2MW2	Total/NA	Water	3005A	
310-279198-1 MSD	NC2MW2	Total/NA	Water	3005A	

Prep Batch: 419710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	7470A	
310-279198-2	NC2MW3	Total/NA	Water	7470A	
310-279198-3	NC2MW5	Total/NA	Water	7470A	
MB 310-419710/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-419710/2-A	Lab Control Sample	Total/NA	Water	7470A	
310-279198-3 DU	NC2MW5	Total/NA	Water	7470A	

Prep Batch: 419713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-4	NC2MW6	Total/NA	Water	7470A	
310-279198-5	NC2MW7	Total/NA	Water	7470A	
310-279198-6	NC2MW8	Total/NA	Water	7470A	
310-279198-7	DUP2	Total/NA	Water	7470A	
MB 310-419713/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-419713/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 419931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	6020B	419190
310-279198-2	NC2MW3	Total/NA	Water	6020B	419190
310-279198-3	NC2MW5	Total/NA	Water	6020B	419190
310-279198-4	NC2MW6	Total/NA	Water	6020B	419190

Metals (Continued)

Analysis Batch: 419931 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-5	NC2MW7	Total/NA	Water	6020B	419190
310-279198-6	NC2MW8	Total/NA	Water	6020B	419190
310-279198-7	DUP2	Total/NA	Water	6020B	419190
MB 310-419190/1-A	Method Blank	Total/NA	Water	6020B	419190
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	6020B	419190
310-279198-1 MS	NC2MW2	Total/NA	Water	6020B	419190
310-279198-1 MSD	NC2MW2	Total/NA	Water	6020B	419190

Analysis Batch: 420030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	7470A	419710
310-279198-2	NC2MW3	Total/NA	Water	7470A	419710
310-279198-3	NC2MW5	Total/NA	Water	7470A	419710
MB 310-419710/1-A	Method Blank	Total/NA	Water	7470A	419710
LCS 310-419710/2-A	Lab Control Sample	Total/NA	Water	7470A	419710
310-279198-3 DU	NC2MW5	Total/NA	Water	7470A	419710

Analysis Batch: 420265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-4	NC2MW6	Total/NA	Water	7470A	419713
310-279198-5	NC2MW7	Total/NA	Water	7470A	419713
310-279198-6	NC2MW8	Total/NA	Water	7470A	419713
310-279198-7	DUP2	Total/NA	Water	7470A	419713
MB 310-419713/1-A	Method Blank	Total/NA	Water	7470A	419713
LCS 310-419713/2-A	Lab Control Sample	Total/NA	Water	7470A	419713

General Chemistry

Analysis Batch: 419200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	SM 2540C	
310-279198-2	NC2MW3	Total/NA	Water	SM 2540C	
310-279198-3	NC2MW5	Total/NA	Water	SM 2540C	
310-279198-4	NC2MW6	Total/NA	Water	SM 2540C	
310-279198-5	NC2MW7	Total/NA	Water	SM 2540C	
310-279198-6	NC2MW8	Total/NA	Water	SM 2540C	
310-279198-7	DUP2	Total/NA	Water	SM 2540C	
MB 310-419200/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-419200/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW2
Lab Sample ID: 310-279198-1
Date Collected: 04/15/24 16:10
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 16:45
Total/NA	Analysis	9056A		20	419465	QTZ5	EET CF	04/20/24 12:34
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 13:55
Total/NA	Prep	7470A			419710	A6US	EET CF	04/24/24 10:43
Total/NA	Analysis	7470A		1	420030	A6US	EET CF	04/26/24 15:32
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Client Sample ID: NC2MW3
Lab Sample ID: 310-279198-2
Date Collected: 04/15/24 13:33
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 16:58
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:05
Total/NA	Prep	7470A			419710	A6US	EET CF	04/24/24 10:43
Total/NA	Analysis	7470A		1	420030	A6US	EET CF	04/26/24 15:34
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Client Sample ID: NC2MW5
Lab Sample ID: 310-279198-3
Date Collected: 04/15/24 11:05
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 17:10
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:07
Total/NA	Prep	7470A			419710	A6US	EET CF	04/24/24 10:43
Total/NA	Analysis	7470A		1	420030	A6US	EET CF	04/26/24 15:36
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Client Sample ID: NC2MW6
Lab Sample ID: 310-279198-4
Date Collected: 04/15/24 12:05
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 17:23
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:09
Total/NA	Prep	7470A			419713	A6US	EET CF	04/24/24 11:01
Total/NA	Analysis	7470A		1	420265	A6US	EET CF	04/30/24 10:28
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW7
Lab Sample ID: 310-279198-5

Date Collected: 04/15/24 17:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 17:35
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:20
Total/NA	Prep	7470A			419713	A6US	EET CF	04/24/24 11:01
Total/NA	Analysis	7470A		1	420265	A6US	EET CF	04/30/24 10:30
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Client Sample ID: NC2MW8
Lab Sample ID: 310-279198-6

Date Collected: 04/15/24 14:41
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 17:48
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:22
Total/NA	Prep	7470A			419713	A6US	EET CF	04/24/24 11:01
Total/NA	Analysis	7470A		1	420265	A6US	EET CF	04/30/24 10:32
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Client Sample ID: DUP2
Lab Sample ID: 310-279198-7

Date Collected: 04/15/24 00:00
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 18:01
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:24
Total/NA	Prep	7470A			419713	A6US	EET CF	04/24/24 11:01
Total/NA	Analysis	7470A		1	420265	A6US	EET CF	04/30/24 10:34
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-24

Method Summary

Client: Omaha Public Power District
Job ID: 310-279198-1
Project/Site: Nebraska City Unit 2 CCR / Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-279198 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 1 of 2

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.4 | Corrected Temp (°C): -0.4

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

NC2MW6 - only 1 1L, other received empty

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 2 of 2

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.4 | Corrected Temp (°C): 0.4

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC 268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s):	COC No.
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested			
City: Omaha	TAT Requested (days)			
State Zip: NE 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd com	WO #:			
Project Name: Nebraska City Station Unit 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 2	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2SO3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	ph 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	D	N		
NC2MW2	4/15/24	16:10	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW3	4/15/24	13:33	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW5	4/15/24	11:05	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW6	4/15/24	12:05	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW7	4/15/24	17:50	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW8	4/15/24	14:41	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP2	4/15/24	---	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	4/16/2024 12:10	OPPD	[signature]	4-16-24 1215	EF
2	[signature]	4-17-24 0805	EF	[signature]	Date/Time	Company
3	Relinquished by	Date/Time	Company	Received by [signature]	Date/Time 4/17/24	Company EF

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 4/26/2024 11:45:22 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR / Landfill

JOB NUMBER

310-279197-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Job Notes

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

Authorization

Generated
4/26/2024 11:45:22 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-279197-1 — Eurofins Cedar Falls

Job Narrative
310-279197-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/18/2024 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.4°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: NC2MW4 (310-279197-1) and MW13 (310-279197-2). Elevated reporting limits (RLs) are provided.

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

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279197-1	NC2MW4	Water	04/15/24 10:17	04/18/24 16:40
310-279197-2	MW13	Water	04/15/24 09:50	04/18/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4 — Lab Sample ID: 310-279197-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.00		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	51.7		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00250		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.466		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.0951	J	0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	143		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00122		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.00213		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0339		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00262		0.00200	0.00130	mg/L	1		6020B	Total/NA
Total Dissolved Solids	468		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13 — Lab Sample ID: 310-279197-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.5		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	77.1		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0120		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.275		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.0852	J	0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	138		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000593		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0362		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	524		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1
Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.00**		5.00	2.25	mg/L			04/20/24 12:09	5
Fluoride	<0.375		1.00	0.375	mg/L			04/20/24 12:09	5
Sulfate	**51.7**		5.00	2.10	mg/L			04/20/24 12:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:27	1
Arsenic	**0.00250**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:27	1
Barium	**0.466**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:27	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:27	1
Boron	**0.0951**	**J**	0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:27	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:27	1
Calcium	**143**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:27	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:27	1
Cobalt	**0.00122**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:27	1
Lead	**0.00213**		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:27	1
Lithium	**0.0339**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:27	1
Molybdenum	**0.00262**		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:27	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:27	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:27	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:30	04/24/24 16:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**468**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: MW13
Lab Sample ID: 310-279197-2
Date Collected: 04/15/24 09:50
Matrix: Water
Date Received: 04/18/24 16:40

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.5**		5.00	2.25	mg/L			04/19/24 15:55	5
Fluoride	<0.375		1.00	0.375	mg/L			04/19/24 15:55	5
Sulfate	**77.1**		5.00	2.10	mg/L			04/19/24 15:55	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 14:29	1
Arsenic	**0.0120**		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 14:29	1
Barium	**0.275**		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 14:29	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 14:29	1
Boron	**0.0852**	**J**	0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 14:29	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 14:29	1
Calcium	**138**		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 14:29	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 14:29	1
Cobalt	**0.000593**		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 14:29	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 14:29	1
Lithium	**0.0362**		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 14:29	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 14:29	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 14:29	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 14:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		04/24/24 10:30	04/24/24 16:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**524**		50.0	42.0	mg/L			04/18/24 18:19	1

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Qualifiers

Metals

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

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-419465/3
Matrix: Water
Analysis Batch: 419465

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			04/19/24 10:38	1
Fluoride	<0.0750		0.200	0.0750	mg/L			04/19/24 10:38	1
Sulfate	<0.420		1.00	0.420	mg/L			04/19/24 10:38	1

Lab Sample ID: LCS 310-419465/4
Matrix: Water
Analysis Batch: 419465

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.895		mg/L		99	90 - 110
Fluoride	2.00	2.078		mg/L		104	90 - 110
Sulfate	10.0	10.69		mg/L		107	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-419190/1-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 419190

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		04/19/24 09:00	04/25/24 13:50	1
Barium	<0.000660		0.00200	0.000660	mg/L		04/19/24 09:00	04/25/24 13:50	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		04/19/24 09:00	04/25/24 13:50	1
Boron	<0.0760		0.100	0.0760	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		04/19/24 09:00	04/25/24 13:50	1
Calcium	<0.190		0.500	0.190	mg/L		04/19/24 09:00	04/25/24 13:50	1
Chromium	<0.00120		0.00500	0.00120	mg/L		04/19/24 09:00	04/25/24 13:50	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lead	<0.000260		0.000500	0.000260	mg/L		04/19/24 09:00	04/25/24 13:50	1
Lithium	<0.00250		0.0100	0.00250	mg/L		04/19/24 09:00	04/25/24 13:50	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		04/19/24 09:00	04/25/24 13:50	1
Selenium	<0.00140		0.00500	0.00140	mg/L		04/19/24 09:00	04/25/24 13:50	1
Thallium	<0.000570		0.00100	0.000570	mg/L		04/19/24 09:00	04/25/24 13:50	1

Lab Sample ID: LCS 310-419190/2-A
Matrix: Water
Analysis Batch: 419931

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 419190

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2143		mg/L		107	80 - 120
Arsenic	0.200	0.2070		mg/L		104	80 - 120
Barium	0.100	0.1073		mg/L		107	80 - 120
Beryllium	0.100	0.1004		mg/L		100	80 - 120
Boron	0.200	0.2022		mg/L		101	80 - 120
Cadmium	0.100	0.1012		mg/L		101	80 - 120
Calcium	2.00	1.910		mg/L		95	80 - 120
Chromium	0.100	0.09635		mg/L		96	80 - 120
Cobalt	0.100	0.1096		mg/L		110	80 - 120

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

Lab Sample ID: LCS 310-419190/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419931 — **Prep Batch: 419190**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	0.200	0.2098		mg/L		105	80 - 120
Lithium	0.200	0.2099		mg/L		105	80 - 120
Molybdenum	0.200	0.1991		mg/L		100	80 - 120
Selenium	0.400	0.3979		mg/L		99	80 - 120
Thallium	0.100	0.1094		mg/L		109	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: 310-279197-2 DU — **Client Sample ID: MW13**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419780 — **Prep Batch: 419705**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	<0.000110		<0.000110		mg/L		NC	20

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

Lab Sample ID: MB 310-419200/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42.0		50.0	42.0	mg/L			04/18/24 18:19	1

Lab Sample ID: LCS 310-419200/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	948.0		mg/L		95	90 - 110

Lab Sample ID: 310-279197-2 DU — **Client Sample ID: MW13**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 419200

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	524		526.0		mg/L		0.4	20

QC Association Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

HPLC/IC

Analysis Batch: 419465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	9056A	
310-279197-2	MW13	Total/NA	Water	9056A	
MB 310-419465/3	Method Blank	Total/NA	Water	9056A	
LCS 310-419465/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 419190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	3005A	
310-279197-2	MW13	Total/NA	Water	3005A	
MB 310-419190/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 419705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	7470A	
310-279197-2	MW13	Total/NA	Water	7470A	
310-279197-2 DU	MW13	Total/NA	Water	7470A	

Analysis Batch: 419780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	7470A	419705
310-279197-2	MW13	Total/NA	Water	7470A	419705
310-279197-2 DU	MW13	Total/NA	Water	7470A	419705

Analysis Batch: 419931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	6020B	419190
310-279197-2	MW13	Total/NA	Water	6020B	419190
MB 310-419190/1-A	Method Blank	Total/NA	Water	6020B	419190
LCS 310-419190/2-A	Lab Control Sample	Total/NA	Water	6020B	419190

General Chemistry

Analysis Batch: 419200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	SM 2540C	
310-279197-2	MW13	Total/NA	Water	SM 2540C	
MB 310-419200/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-419200/2	Lab Control Sample	Total/NA	Water	SM 2540C	
310-279197-2 DU	MW13	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/20/24 12:09
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:27
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:30
Total/NA	Analysis	7470A		1	419780	A6US	EET CF	04/24/24 16:40
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Client Sample ID: MW13
Lab Sample ID: 310-279197-2

Date Collected: 04/15/24 09:50
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	419465	QTZ5	EET CF	04/19/24 15:55
Total/NA	Prep	3005A			419190	KM3E	EET CF	04/19/24 09:00
Total/NA	Analysis	6020B		1	419931	NFT2	EET CF	04/25/24 14:29
Total/NA	Prep	7470A			419705	A6US	EET CF	04/24/24 10:30
Total/NA	Analysis	7470A		1	419780	A6US	EET CF	04/24/24 16:42
Total/NA	Analysis	SM 2540C		1	419200	D7CP	EET CF	04/18/24 18:19

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-24

Method Summary

Client: Omaha Public Power District
Job ID: 310-279197-1
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-279197 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☐ Yes ☑ No *If yes:* Cooler # _____ of _____

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.4 | Corrected Temp (°C): -0.4

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s)	COC No
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District				Job #:

Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested	Analysis Requested
City: Omaha	TAT Requested (days)	
State, Zip: NE 68102-2247		
Phone: (531) 226-2515	PO #:	
Email: kkuhing@oppd.com	WO #:	
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559	
Site: Nebraska City Station Unit 1 & 2	SSOW#:	

Preservation Codes

A HCL	M Hexane
B NaOH	N - None
C Zn Acetate	O AsNaO2
D Nitric Acid	P Na2O4S
E - NaHSO4	Q Na2SO3
F MeOH	R Na2S2SO3
G Amchlor	S H2SO4
H - Ascorbic Acid	T TSP Dodecahydrate
I Ice	U Acetone
J DI Water	V MCAA
K - EDTA	W ph 4-5
L EDA	Z other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X	D	D	N		
NC2MW4	4/15/24	10:17	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	4/15/24	9:58	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Kyle K. Uhing	4/16/2024 12:10	OPPD		4-16-24 1215	EF
2		4-17-24 0800	EF			
3				88	4/17/24	EF

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks

4/26/2024

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279197-1

SDG Number:

Login Number: 279197

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279198-1

SDG Number:

Login Number: 279198

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 5/21/2024 10:20:01 AM

JOB DESCRIPTION

Nebraska City Unit 2 CCR / Landfill

JOB NUMBER

310-279198-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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Authorization

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5/21/2024 10:20:01 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-279198-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/17/2024 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were -0.4°C and 0.4°C.

Receipt Exceptions
One container for the following sample was received empty: But there is still enough volume from the other containers to run the requested analsis. NC2MW6 (310-279198-4).

Affected container:
D-4

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 prep batch 160-658175:

The detection goal was not met for the following sample due to the reduced sample volume attributed to the presence of matrix interferences: NC2MW6 (310-279198-4) . Analytical results are reported with the detection limit achieved.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279198-1	NC2MW2	Water	04/15/24 16:10	04/17/24 16:40
310-279198-2	NC2MW3	Water	04/15/24 13:33	04/17/24 16:40
310-279198-3	NC2MW5	Water	04/15/24 11:05	04/17/24 16:40
310-279198-4	NC2MW6	Water	04/15/24 12:05	04/17/24 16:40
310-279198-5	NC2MW7	Water	04/15/24 17:50	04/17/24 16:40
310-279198-6	NC2MW8	Water	04/15/24 14:41	04/17/24 16:40
310-279198-7	DUP2	Water	04/15/24 00:00	04/17/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW2 **Lab Sample ID: 310-279198-1**

No Detections.

Client Sample ID: NC2MW3 **Lab Sample ID: 310-279198-2**

No Detections.

Client Sample ID: NC2MW5 **Lab Sample ID: 310-279198-3**

No Detections.

Client Sample ID: NC2MW6 **Lab Sample ID: 310-279198-4**

No Detections.

Client Sample ID: NC2MW7 **Lab Sample ID: 310-279198-5**

No Detections.

Client Sample ID: NC2MW8 **Lab Sample ID: 310-279198-6**

No Detections.

Client Sample ID: DUP2 **Lab Sample ID: 310-279198-7**

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW2
Lab Sample ID: 310-279198-1
Date Collected: 04/15/24 16:10
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.215		0.107	0.109	1.00	0.117	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.07		0.445	0.456	1.00	0.586	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.0*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*79.6*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.28		0.458	0.469	5.00	0.586	pCi/L		05/20/24 17:28	1

Client Sample ID: NC2MW3
Lab Sample ID: 310-279198-2

Date Collected: 04/15/24 13:33
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.119	U	0.0974	0.0980	1.00	0.141	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.03**		0.462	0.472	1.00	0.614	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*73.3*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.15**		0.472	0.482	5.00	0.614	pCi/L		05/20/24 17:28	1

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW5
Lab Sample ID: 310-279198-3
Date Collected: 04/15/24 11:05
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.100	U	0.127	0.128	1.00	0.211	pCi/L	04/23/24 08:36	05/18/24 16:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:10*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.124	U	0.453	0.453	1.00	0.815	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*77.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.224	U	0.470	0.471	5.00	0.815	pCi/L		05/20/24 17:28	1

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW6
Lab Sample ID: 310-279198-4
Date Collected: 04/15/24 12:05
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.357		0.214	0.216	1.00	0.256	pCi/L	04/23/24 08:36	05/18/24 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.720	U G	0.726	0.729	1.00	1.17	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*77.0*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.08	U	0.757	0.760	5.00	1.17	pCi/L		05/20/24 17:28	1

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW7
Lab Sample ID: 310-279198-5
Date Collected: 04/15/24 17:50
Matrix: Water
Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.405		0.143	0.147	1.00	0.115	pCi/L	04/23/24 08:36	05/18/24 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.65		0.483	0.506	1.00	0.512	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*81.5*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.05		0.504	0.527	5.00	0.512	pCi/L		05/20/24 17:28	1

Client Sample ID: NC2MW8
Lab Sample ID: 310-279198-6

Date Collected: 04/15/24 14:41
Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.260		0.131	0.133	1.00	0.161	pCi/L	04/23/24 08:36	05/18/24 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.842		0.392	0.400	1.00	0.529	pCi/L	04/23/24 08:40	05/15/24 16:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*
Y Carrier	*82.2*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:45*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.413	0.422	5.00	0.529	pCi/L		05/20/24 17:28	1

Client Sample ID: DUP2

Lab Sample ID: 310-279198-7

Date Collected: 04/15/24 00:00

Matrix: Water

Date Received: 04/17/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.253		0.118	0.120	1.00	0.124	pCi/L	04/23/24 08:36	05/18/24 16:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.0*		*30 - 110*	*04/23/24 08:36*	*05/18/24 16:11*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.964		0.423	0.432	1.00	0.569	pCi/L	04/23/24 08:40	05/15/24 16:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.0*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:46*	*1*
Y Carrier	*86.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:46*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.22		0.439	0.448	5.00	0.569	pCi/L		05/20/24 17:28	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Qualifiers

Rad

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

Glossary

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

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-658173/1-A
Matrix: Water
Analysis Batch: 662384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658173

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.06634	U	0.0969	0.0971	1.00	0.165	pCi/L	04/23/24 08:36	05/18/24 09:44	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/23/24 08:36*	*05/18/24 09:44*	*1*

Lab Sample ID: LCS 160-658173/2-A
Matrix: Water
Analysis Batch: 662384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658173

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	11.30		1.25	1.00	0.159	pCi/L	100	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-658175/1-A
Matrix: Water
Analysis Batch: 661646

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658175

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.4991		0.333	0.336	1.00	0.488	pCi/L	04/23/24 08:40	05/15/24 16:31	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.2*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:31*	*1*
Y Carrier	*80.4*		*30 - 110*	*04/23/24 08:40*	*05/15/24 16:31*	*1*

Lab Sample ID: LCS 160-658175/2-A
Matrix: Water
Analysis Batch: 661646

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658175

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.94	9.112		1.29	1.00	0.552	pCi/L	102	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*
Y Carrier	*83.0*		*30 - 110*

QC Association Summary

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Rad

Prep Batch: 658173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	PrecSep-21	
310-279198-2	NC2MW3	Total/NA	Water	PrecSep-21	
310-279198-3	NC2MW5	Total/NA	Water	PrecSep-21	
310-279198-4	NC2MW6	Total/NA	Water	PrecSep-21	
310-279198-5	NC2MW7	Total/NA	Water	PrecSep-21	
310-279198-6	NC2MW8	Total/NA	Water	PrecSep-21	
310-279198-7	DUP2	Total/NA	Water	PrecSep-21	
MB 160-658173/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-658173/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 658175

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279198-1	NC2MW2	Total/NA	Water	PrecSep_0	
310-279198-2	NC2MW3	Total/NA	Water	PrecSep_0	
310-279198-3	NC2MW5	Total/NA	Water	PrecSep_0	
310-279198-4	NC2MW6	Total/NA	Water	PrecSep_0	
310-279198-5	NC2MW7	Total/NA	Water	PrecSep_0	
310-279198-6	NC2MW8	Total/NA	Water	PrecSep_0	
310-279198-7	DUP2	Total/NA	Water	PrecSep_0	
MB 160-658175/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-658175/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW2
Lab Sample ID: 310-279198-1
Date Collected: 04/15/24 16:10
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Client Sample ID: NC2MW3
Lab Sample ID: 310-279198-2
Date Collected: 04/15/24 13:33
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Client Sample ID: NC2MW5
Lab Sample ID: 310-279198-3
Date Collected: 04/15/24 11:05
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:10
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Client Sample ID: NC2MW6
Lab Sample ID: 310-279198-4
Date Collected: 04/15/24 12:05
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:11
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Client Sample ID: NC2MW7
Lab Sample ID: 310-279198-5
Date Collected: 04/15/24 17:50
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:11
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Client Sample ID: NC2MW8
Lab Sample ID: 310-279198-6
Date Collected: 04/15/24 14:41
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:11
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:45
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Client Sample ID: DUP2
Lab Sample ID: 310-279198-7
Date Collected: 04/15/24 00:00
Matrix: Water
Date Received: 04/17/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658173	MLT	EET SL	04/23/24 08:36
Total/NA	Analysis	9315		1	662267	SCB	EET SL	05/18/24 16:11
Total/NA	Prep	PrecSep_0			658175	MLT	EET SL	04/23/24 08:40
Total/NA	Analysis	9320		1	661817	SWS	EET SL	05/15/24 16:46
Total/NA	Analysis	Ra226_Ra228		1	662555	EMH	EET SL	05/20/24 17:28

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

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

Laboratory References:

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

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310-279198 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 1 of 2

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.4 | Corrected Temp (°C): -0.4

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

NC2MW6 - only 1 1L, other received empty

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:

Condition of Cooler/Containers

Sample(s) received in Cooler? ☑ Yes ☐ No *If yes:* Cooler ID:

Multiple Coolers? ☑ Yes ☐ No *If yes:* Cooler # 2 of 2

Cooler Custody Seals Present? ☐ Yes ☑ No *If yes:* Cooler custody seals intact? ☐ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☑ No *If yes:* Sample custody seals intact? ☐ Yes ☐ No

Trip Blank Present? ☐ Yes ☑ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.4 | Corrected Temp (°C): 0.4

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC 268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s):	COC No.
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested			
City: Omaha	TAT Requested (days)			
State Zip: NE 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd com	WO #:			
Project Name: Nebraska City Station Unit 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 2	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2SO3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	ph 4-5
L	EDA	Z	other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note
			Preservation Code:				D	D	N		
NC2MW2	4/15/24	16:10	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW3	4/15/24	13:33	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW5	4/15/24	11:05	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW6	4/15/24	12:05	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW7	4/15/24	17:50	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW8	4/15/24	14:41	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP2	4/15/24	---	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by: Kyle Uhing	Date/Time: 4/16/2024 12:10	Company: OPPD	Received by:	Date/Time: 4-16-24 1215	Company: EP
Relinquished by:	Date/Time: 4-17-24 0805	Company: EP	Received by:	Date/Time:	Company:
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time: 4/17/24	Company: EP

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.

5/21/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-71431.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-279198-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/21/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Unit 2 CCR / Landfill	Project #: 31007559			
Site: 310 OPPD Nebraska City Unit 2	SSOW#:			

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC2MW2 (310-279198-1)	4/15/24	16:10 Central		Water			X	X	X	2	
NC2MW3 (310-279198-2)	4/15/24	13:33 Central		Water			X	X	X	2	
NC2MW5 (310-279198-3)	4/15/24	11:05 Central		Water			X	X	X	2	
NC2MW6 (310-279198-4)	4/15/24	12:05 Central		Water			X	X	X	2	
NC2MW7 (310-279198-5)	4/15/24	17:50 Central		Water			X	X	X	2	
NC2MW8 (310-279198-6)	4/15/24	14:41 Central		Water			X	X	X	2	
DUP2 (310-279198-7)	4/15/24	Central		Water			X	X	X	2	

Preservation Codes: -

Other:

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4/18/24 1155				
Relinquished by:	Date/Time:	Company	Received by: M. Pinette	Date/Time: APR 19 2024 0830	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279198-2
SDG Number:

Login Number: 279198
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279198-2
SDG Number:

Login Number: 279198
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 04/19/24 02:06 PM

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

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-279198-2
Project/Site: Nebraska City Unit 2 CCR / Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-279198-1	NC2MW2	98.0
310-279198-2	NC2MW3	94.4
310-279198-3	NC2MW5	96.4
310-279198-4	NC2MW6	90.4
310-279198-5	NC2MW7	90.4
310-279198-6	NC2MW8	98.5
310-279198-7	DUP2	97.0
LCS 160-658173/2-A	Lab Control Sample	91.1
MB 160-658173/1-A	Method Blank	97.2

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-279198-1	NC2MW2	98.0	79.6
310-279198-2	NC2MW3	94.4	73.3
310-279198-3	NC2MW5	96.4	77.4
310-279198-4	NC2MW6	90.4	77.0
310-279198-5	NC2MW7	90.4	81.5
310-279198-6	NC2MW8	98.5	82.2
310-279198-7	DUP2	97.0	86.4
LCS 160-658175/2-A	Lab Control Sample	91.1	83.0
MB 160-658175/1-A	Method Blank	97.2	80.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 5/22/2024 10:17:09 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR / Landfill

JOB NUMBER

310-279197-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

my EOL

Job Notes

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

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

Authorization

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Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-279197-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 4/18/2024 4:40 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was -0.4°C.

Gas Flow Proportional Counter
Method 9320_Ra228: Radium-228 prep batch 160-658654:

The detection goal was not met for the following sample due to the reduced sample volume attributed to the presence of matrix interferences: NC2MW4 (310-279197-1) . Analytical results are reported with the detection limit achieved.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-279197-1	NC2MW4	Water	04/15/24 10:17	04/18/24 16:40
310-279197-2	MW13	Water	04/15/24 09:50	04/18/24 16:40

Detection Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

No Detections.

Client Sample ID: MW13
Lab Sample ID: 310-279197-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.170		0.114	0.115	1.00	0.149	pCi/L	04/25/24 09:29	05/21/24 07:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*30 - 110*	*04/25/24 09:29*	*05/21/24 07:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.13	G	0.688	0.696	1.00	1.02	pCi/L	04/25/24 09:33	05/16/24 13:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*
Y Carrier	*81.1*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.30		0.697	0.705	5.00	1.02	pCi/L		05/22/24 08:31	1

Client Sample ID: MW13
Date Collected: 04/15/24 09:50
Date Received: 04/18/24 16:40

Lab Sample ID: 310-279197-2
Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.167		0.0966	0.0978	1.00	0.120	pCi/L	04/25/24 09:29	05/21/24 07:38	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*30 - 110*	*04/25/24 09:29*	*05/21/24 07:38*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.18		0.504	0.515	1.00	0.657	pCi/L	04/25/24 09:33	05/16/24 13:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*
Y Carrier	*82.6*		*30 - 110*	*04/25/24 09:33*	*05/16/24 13:44*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.35		0.513	0.524	5.00	0.657	pCi/L		05/22/24 08:31	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Qualifiers

Rad

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

Glossary

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

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-658653/1-A
Matrix: Water
Analysis Batch: 662554

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658653

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03231	U	0.0750	0.0751	1.00	0.136	pCi/L	04/25/24 09:29	05/20/24 20:12	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*30 - 110*	*04/25/24 09:29*	*05/20/24 20:12*	*1*

Lab Sample ID: LCS 160-658653/2-A
Matrix: Water
Analysis Batch: 662554

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658653

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			11.3	10.43		1.13	1.00	0.140	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.4*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-658654/1-A
Matrix: Water
Analysis Batch: 661995

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 658654

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.09748	U	0.249	0.249	1.00	0.442	pCi/L	04/25/24 09:33	05/16/24 12:11	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*30 - 110*	*04/25/24 09:33*	*05/16/24 12:11*	*1*
Y Carrier	*84.5*		*30 - 110*	*04/25/24 09:33*	*05/16/24 12:11*	*1*

Lab Sample ID: LCS 160-658654/2-A
Matrix: Water
Analysis Batch: 661995

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 658654

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.94	9.781		1.32	1.00	0.494	pCi/L	109	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*95.4*		*30 - 110*
Y Carrier	*84.9*		*30 - 110*

QC Association Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Rad

Prep Batch: 658653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	PrecSep-21	
310-279197-2	MW13	Total/NA	Water	PrecSep-21	
MB 160-658653/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-658653/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 658654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-279197-1	NC2MW4	Total/NA	Water	PrecSep_0	
310-279197-2	MW13	Total/NA	Water	PrecSep_0	
MB 160-658654/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-658654/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-279197-1

Date Collected: 04/15/24 10:17
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658653	MLT	EET SL	04/25/24 09:29
Total/NA	Analysis	9315		1	662737	SCB	EET SL	05/21/24 07:38
Total/NA	Prep	PrecSep_0			658654	MLT	EET SL	04/25/24 09:33
Total/NA	Analysis	9320		1	661878	SCB	EET SL	05/16/24 13:44
Total/NA	Analysis	Ra226_Ra228		1	662916	FLC	EET SL	05/22/24 08:31

Client Sample ID: MW13
Lab Sample ID: 310-279197-2

Date Collected: 04/15/24 09:50
Matrix: Water
Date Received: 04/18/24 16:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			658653	MLT	EET SL	04/25/24 09:29
Total/NA	Analysis	9315		1	662737	SCB	EET SL	05/21/24 07:38
Total/NA	Prep	PrecSep_0			658654	MLT	EET SL	04/25/24 09:33
Total/NA	Analysis	9320		1	661878	SCB	EET SL	05/16/24 13:44
Total/NA	Analysis	Ra226_Ra228		1	662916	FLC	EET SL	05/22/24 08:31

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-24
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-24
HI - RadChem Recognition	State	n/a	06-30-24
Illinois	NELAP	200023	11-30-24
Iowa	State	373	12-01-24
Kansas	NELAP	E-10236	10-31-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-24
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-24
Massachusetts	State	M-MO054	06-30-24
MI - RadChem Recognition	State	9005	06-30-24
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-24
New Jersey	NELAP	MO002	06-30-24
New Mexico	State	MO00054	06-30-24
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-24
North Dakota	State	R-207	06-30-24
Oklahoma	NELAP	9997	08-31-24
Oregon	NELAP	4157	09-01-24
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-24
Texas	NELAP	T104704193	07-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-24
Virginia	NELAP	10310	06-15-25
Washington	State	C592	08-30-24
West Virginia DEP	State	381	10-31-24

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

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

Laboratory References:

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

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310-279197 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: Omaha Public Power District

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 4/17/24 | TIME 1640 | Received By: BB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☑ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes	☑ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☐ Yes	☑ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☑ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☑ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☑ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): -0.4 | Corrected Temp (°C): -0.4

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica Omaha SC
268

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: Hayes Shawn M	Carrier Tracking No(s)	COC No
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: shawn hayes@testamericainc.com		Page
Company: Omaha Public Power District		**Analysis Requested**		Job #:

Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested	
City: Omaha	TAT Requested (days)	
State, Zip: NE 68102-2247		
Phone: (531) 226-2515	PO #:	
Email: kkuhing@oppd.com	WO #:	
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559	
Site: Nebraska City Station Unit 1 & 2	SSOW#:	

Preservation Codes

A HCL	M Hexane
B NaOH	N - None
C Zn Acetate	O AsNaO2
D Nitric Acid	P Na2O4S
E - NaHSO4	Q Na2SO3
F MeOH	R Na2S2SO3
G Amchlor	S H2SO4
H - Ascorbic Acid	T TSP Dodecahydrate
I Ice	U Acetone
J DI Water	V MCAA
K - EDTA	W ph 4-5
L EDA	Z other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note.
			Preservation Code:		X	X	D	D	N		
NC2MW4	4/15/24	10:17	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	4/15/24	9:58	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Kyle K. Uhing	4/16/2024 12:10	OPPD		4-16-24 1215	EF
2		4-17-24 0800	EF			
3				88	4/17/24	EF

Custody Seals Intact: Δ Yes Δ No

Custody Seal No

Cooler Temperature(s) °C and Other Remarks

5/22/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-71431.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-279197-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 5/22/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Unit 1 & 2 CCR / Landfill	Project #: 31007559			
Site: 310 OPPD Nebraska City Unit 2	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC2MW4 (310-279197-1)	4/15/24	10:17 Central		Water			X	X	X	2	
MW13 (310-279197-2)	4/15/24	09:50 Central		Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	4/18/24 1155		M. Pinette		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: APR 19 2024 0835	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279197-2

SDG Number:

Login Number: 279197

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-279197-2
SDG Number:

Login Number: 279197
List Number: 2
Creator: Pinette, Meadow L

List Source: Eurofins St. Louis
List Creation: 04/19/24 02:18 PM

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

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-279197-2
Project/Site: Nebraska City Unit 1 & 2 CCR / Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-279197-1	NC2MW4	91.4
310-279197-2	MW13	90.6
LCS 160-658653/2-A	Lab Control Sample	95.4
MB 160-658653/1-A	Method Blank	104

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-279197-1	NC2MW4	91.4	81.1
310-279197-2	MW13	90.6	82.6
LCS 160-658654/2-A	Lab Control Sample	95.4	84.9
MB 160-658654/1-A	Method Blank	104	84.5

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 10/22/2024 11:13:43 AM

JOB DESCRIPTION

Nebraska City Unit 2 CCR/Landfill

JOB NUMBER

310-292385-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

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Job Notes

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

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

Authorization

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Authorized for release by
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Job Narrative
310-292385-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3°C and 1.0°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: NC2MW5 (310-292385-3). Elevated reporting limits (RLs) are provided.

Method 9056A_ORGFM_28D: The following samples were diluted due to the nature of the sample matrix: NC2MW7 (310-292385-5), NC2MW8 (310-292385-6) and DUP2 (310-292385-7). Elevated reporting limits (RLs) are provided.

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

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292385-1	NC2MW2	Water	10/07/24 17:07	10/09/24 16:35
310-292385-2	NC2MW3	Water	10/07/24 15:46	10/09/24 16:35
310-292385-3	NC2MW5	Water	10/07/24 13:42	10/09/24 16:35
310-292385-4	NC2MW6	Water	10/07/24 14:46	10/09/24 16:35
310-292385-5	NC2MW7	Water	10/07/24 17:59	10/09/24 16:35
310-292385-6	NC2MW8	Water	10/07/24 16:26	10/09/24 16:35
310-292385-7	DUP2	Water	10/07/24 00:00	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW2 — Lab Sample ID: 310-292385-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	21.5		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.603	J	1.00	0.375	mg/L	5		9056A	Total/NA
Sulfate	474		5.00	2.10	mg/L	5		9056A	Total/NA
Antimony	0.00349		0.00200	0.00100	mg/L	1		6020B	Total/NA
Arsenic	0.00111	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0769		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.826		0.100	0.0760	mg/L	1		6020B	Total/NA
Cadmium	0.000148	J	0.000200	0.000100	mg/L	1		6020B	Total/NA
Calcium	289		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000467	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000844		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0430		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0266		0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00168	J	0.00500	0.00140	mg/L	1		6020B	Total/NA
Thallium	0.00165		0.00100	0.000570	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1170		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW3 — Lab Sample ID: 310-292385-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.54		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	1.44		1.00	0.375	mg/L	5		9056A	Total/NA
Sulfate	373		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00270		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.0735		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.458		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	173		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00155		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000524		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0258		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00142	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Thallium	0.00139		0.00100	0.000570	mg/L	1		6020B	Total/NA
Total Dissolved Solids	1160		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW5 — Lab Sample ID: 310-292385-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	25.2		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	656		20.0	8.40	mg/L	20		9056A	Total/NA
Arsenic	0.00438		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.113		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	5.69		0.500	0.380	mg/L	5		6020B	Total/NA
Calcium	327		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000345	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.00315		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0215		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.0404		0.00200	0.00130	mg/L	1		6020B	Total/NA
Thallium	0.00307	J	0.00500	0.00285	mg/L	5		6020B	Total/NA
Total Dissolved Solids	1570		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW6 — Lab Sample ID: 310-292385-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.8	F1	5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	1.44	F1	1.00	0.375	mg/L	5		9056A	Total/NA
Sulfate	129		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.000955	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.175		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	2.49		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	158		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000186	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.00111		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0524		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00949		0.00200	0.00130	mg/L	1		6020B	Total/NA
Thallium	0.000697	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Total Dissolved Solids	666		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW7 — Lab Sample ID: 310-292385-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.1		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	3.41	J	5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0512		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.580		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.213		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	121		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000172	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0645		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00202		0.00200	0.00130	mg/L	1		6020B	Total/NA
Thallium	0.000802	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Total Dissolved Solids	458		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: NC2MW8 — Lab Sample ID: 310-292385-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.3		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	18.3		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00343		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.564		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.113		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	134		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.00137		0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000268	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0382		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00178	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Thallium	0.000859	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Total Dissolved Solids	456		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: DUP2 — Lab Sample ID: 310-292385-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	11.6		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	3.60	J	5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0483		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.565		0.00200	0.000660	mg/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP2 (Continued)

Lab Sample ID: 310-292385-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Boron	0.169		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	118		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000172	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lithium	0.0632		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00199	J	0.00200	0.00130	mg/L	1		6020B	Total/NA
Thallium	0.000825	J	0.00100	0.000570	mg/L	1		6020B	Total/NA
Total Dissolved Solids	452		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW2
Lab Sample ID: 310-292385-1
Date Collected: 10/07/24 17:07
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.5		5.00	2.25	mg/L			10/16/24 16:39	5
Fluoride	0.603	J	1.00	0.375	mg/L			10/16/24 16:39	5
Sulfate	474		5.00	2.10	mg/L			10/16/24 16:39	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00349		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 15:49	1
Arsenic	0.00111	J	0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 15:49	1
Barium	0.0769		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 15:49	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 15:49	1
Boron	0.826		0.100	0.0760	mg/L		10/14/24 10:00	10/15/24 15:49	1
Cadmium	0.000148	J	0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 15:49	1
Calcium	289		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 15:49	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 15:49	1
Cobalt	0.000467	J	0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 15:49	1
Lead	0.000844		0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 15:49	1
Lithium	0.0430		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 15:49	1
Molybdenum	0.0266		0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 15:49	1
Selenium	0.00168	J	0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 15:49	1
Thallium	0.00165		0.00100	0.000570	mg/L		10/14/24 10:00	10/18/24 15:43	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	1170		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW3
Lab Sample ID: 310-292385-2
Date Collected: 10/07/24 15:46
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**7.54**		5.00	2.25	mg/L			10/16/24 16:51	5
Fluoride	**1.44**		1.00	0.375	mg/L			10/16/24 16:51	5
Sulfate	**373**		5.00	2.10	mg/L			10/16/24 16:51	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 16:07	1
Arsenic	**0.00270**		0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 16:07	1
Barium	**0.0735**		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 16:07	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 16:07	1
Boron	**0.458**		0.100	0.0760	mg/L		10/14/24 10:00	10/15/24 16:07	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 16:07	1
Calcium	**173**		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 16:07	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 16:07	1
Cobalt	**0.00155**		0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 16:07	1
Lead	**0.000524**		0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 16:07	1
Lithium	**0.0258**		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 16:07	1
Molybdenum	**0.00142**	**J**	0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 16:07	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 16:07	1
Thallium	**0.00139**		0.00100	0.000570	mg/L		10/14/24 10:00	10/18/24 15:50	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1160**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW5
Lab Sample ID: 310-292385-3
Date Collected: 10/07/24 13:42
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.2**		5.00	2.25	mg/L			10/16/24 17:03	5
Fluoride	<0.375		1.00	0.375	mg/L			10/16/24 17:03	5
Sulfate	**656**		20.0	8.40	mg/L			10/17/24 11:25	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 16:09	1
Arsenic	**0.00438**		0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 16:09	1
Barium	**0.113**		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 16:09	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 16:09	1
Boron	**5.69**		0.500	0.380	mg/L		10/14/24 10:00	10/18/24 15:52	5
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 16:09	1
Calcium	**327**		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 16:09	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 16:09	1
Cobalt	**0.000345**	**J**	0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 16:09	1
Lead	**0.00315**		0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 16:09	1
Lithium	**0.0215**		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 16:09	1
Molybdenum	**0.0404**		0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 16:09	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 16:09	1
Thallium	**0.00307**	**J**	0.00500	0.00285	mg/L		10/14/24 10:00	10/18/24 15:52	5

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**1570**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW6
Lab Sample ID: 310-292385-4
Date Collected: 10/07/24 14:46
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.8**	**F1**	5.00	2.25	mg/L			10/17/24 18:26	5
Fluoride	**1.44**	**F1**	1.00	0.375	mg/L			10/17/24 18:26	5
Sulfate	**129**		5.00	2.10	mg/L			10/17/24 18:26	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 16:11	1
Arsenic	**0.000955**	**J**	0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 16:11	1
Barium	**0.175**		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 16:11	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 16:11	1
Boron	**2.49**		0.100	0.0760	mg/L		10/14/24 10:00	10/15/24 16:11	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 16:11	1
Calcium	**158**		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 16:11	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 16:11	1
Cobalt	**0.000186**	**J**	0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 16:11	1
Lead	**0.00111**		0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 16:11	1
Lithium	**0.0524**		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 16:11	1
Molybdenum	**0.00949**		0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 16:11	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 16:11	1
Thallium	**0.000697**	**J**	0.00100	0.000570	mg/L		10/14/24 10:00	10/18/24 15:54	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**666**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW7
Lab Sample ID: 310-292385-5
Date Collected: 10/07/24 17:59
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.1**		5.00	2.25	mg/L			10/17/24 19:02	5
Fluoride	<0.375		1.00	0.375	mg/L			10/17/24 19:02	5
Sulfate	**3.41**	**J**	5.00	2.10	mg/L			10/17/24 19:02	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 16:13	1
Arsenic	**0.0512**		0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 16:13	1
Barium	**0.580**		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 16:13	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 16:13	1
Boron	**0.213**		0.100	0.0760	mg/L		10/14/24 10:00	10/15/24 16:13	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 16:13	1
Calcium	**121**		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 16:13	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 16:13	1
Cobalt	**0.000172**	**J**	0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 16:13	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 16:13	1
Lithium	**0.0645**		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 16:13	1
Molybdenum	**0.00202**		0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 16:13	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 16:13	1
Thallium	**0.000802**	**J**	0.00100	0.000570	mg/L		10/14/24 10:00	10/18/24 15:56	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**458**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW8
Lab Sample ID: 310-292385-6
Date Collected: 10/07/24 16:26
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.3**		5.00	2.25	mg/L			10/17/24 19:14	5
Fluoride	<0.375		1.00	0.375	mg/L			10/17/24 19:14	5
Sulfate	**18.3**		5.00	2.10	mg/L			10/17/24 19:14	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 16:16	1
Arsenic	**0.00343**		0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 16:16	1
Barium	**0.564**		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 16:16	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 16:16	1
Boron	**0.113**		0.100	0.0760	mg/L		10/14/24 10:00	10/15/24 16:16	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 16:16	1
Calcium	**134**		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 16:16	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 16:16	1
Cobalt	**0.00137**		0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 16:16	1
Lead	**0.000268**	**J**	0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 16:16	1
Lithium	**0.0382**		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 16:16	1
Molybdenum	**0.00178**	**J**	0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 16:16	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 16:16	1
Thallium	**0.000859**	**J**	0.00100	0.000570	mg/L		10/14/24 10:00	10/18/24 15:59	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**456**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: DUP2
Lab Sample ID: 310-292385-7
Date Collected: 10/07/24 00:00
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.6**		5.00	2.25	mg/L			10/17/24 19:51	5
Fluoride	<0.375		1.00	0.375	mg/L			10/17/24 19:51	5
Sulfate	**3.60**	**J**	5.00	2.10	mg/L			10/17/24 19:51	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 16:18	1
Arsenic	**0.0483**		0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 16:18	1
Barium	**0.565**		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 16:18	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 16:18	1
Boron	**0.169**		0.100	0.0760	mg/L		10/14/24 10:00	10/15/24 16:18	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 16:18	1
Calcium	**118**		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 16:18	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 16:18	1
Cobalt	**0.000172**	**J**	0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 16:18	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 16:18	1
Lithium	**0.0632**		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 16:18	1
Molybdenum	**0.00199**	**J**	0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 16:18	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 16:18	1
Thallium	**0.000825**	**J**	0.00100	0.000570	mg/L		10/14/24 10:00	10/18/24 16:01	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**452**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-436817/3
Matrix: Water
Analysis Batch: 436817

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			10/16/24 11:37	1
Fluoride	<0.0750		0.200	0.0750	mg/L			10/16/24 11:37	1
Sulfate	<0.420		1.00	0.420	mg/L			10/16/24 11:37	1

Lab Sample ID: LCS 310-436817/4
Matrix: Water
Analysis Batch: 436817

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.655		mg/L		97	90 - 110
Fluoride	2.00	1.955		mg/L		98	90 - 110
Sulfate	10.0	10.01		mg/L		100	90 - 110

Lab Sample ID: MB 310-436854/3
Matrix: Water
Analysis Batch: 436854

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			10/17/24 15:23	1
Fluoride	<0.0750		0.200	0.0750	mg/L			10/17/24 15:23	1
Sulfate	<0.420		1.00	0.420	mg/L			10/17/24 15:23	1

Lab Sample ID: LCS 310-436854/4
Matrix: Water
Analysis Batch: 436854

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.857		mg/L		99	90 - 110
Fluoride	2.00	1.998		mg/L		100	90 - 110
Sulfate	10.0	10.13		mg/L		101	90 - 110

Lab Sample ID: 310-292385-4 MS
Matrix: Water
Analysis Batch: 436854

Client Sample ID: NC2MW6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	12.8	F1	25.0	31.48	F1	mg/L		75	80 - 120
Fluoride	1.44	F1	5.00	5.422		mg/L		80	80 - 120
Sulfate	129		25.0	151.1	4	mg/L		88	80 - 120

Lab Sample ID: 310-292385-4 MSD
Matrix: Water
Analysis Batch: 436854

Client Sample ID: NC2MW6
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	12.8	F1	25.0	30.54	F1	mg/L		71	80 - 120	3	15
Fluoride	1.44	F1	5.00	5.140	F1	mg/L		74	80 - 120	5	15
Sulfate	129		25.0	152.6	4	mg/L		94	80 - 120	1	15

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-436013/1-A
Matrix: Water
Analysis Batch: 436382

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/14/24 10:00	10/15/24 15:45	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		10/14/24 10:00	10/15/24 15:45	1
Barium	<0.000660		0.00200	0.000660	mg/L		10/14/24 10:00	10/15/24 15:45	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/14/24 10:00	10/15/24 15:45	1
Boron	<0.0760		0.100	0.0760	mg/L		10/14/24 10:00	10/15/24 15:45	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/14/24 10:00	10/15/24 15:45	1
Calcium	<0.190		0.500	0.190	mg/L		10/14/24 10:00	10/15/24 15:45	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/14/24 10:00	10/15/24 15:45	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/14/24 10:00	10/15/24 15:45	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/14/24 10:00	10/15/24 15:45	1
Lithium	<0.00250		0.0100	0.00250	mg/L		10/14/24 10:00	10/15/24 15:45	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/14/24 10:00	10/15/24 15:45	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/14/24 10:00	10/15/24 15:45	1

Lab Sample ID: MB 310-436013/1-A
Matrix: Water
Analysis Batch: 436888

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436013

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.000570		0.00100	0.000570	mg/L		10/14/24 10:00	10/18/24 15:30	1

Lab Sample ID: LCS 310-436013/2-A
Matrix: Water
Analysis Batch: 436382

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2401		mg/L		120	80 - 120
Arsenic	0.200	0.2314		mg/L		116	80 - 120
Barium	0.100	0.1097		mg/L		110	80 - 120
Beryllium	0.100	0.1022		mg/L		102	80 - 120
Boron	0.200	0.1854		mg/L		93	80 - 120
Cadmium	0.100	0.1088		mg/L		109	80 - 120
Calcium	2.00	2.071		mg/L		104	80 - 120
Chromium	0.100	0.1106		mg/L		111	80 - 120
Cobalt	0.100	0.1042		mg/L		104	80 - 120
Lead	0.200	0.2181		mg/L		109	80 - 120
Lithium	0.200	0.2063		mg/L		103	80 - 120
Molybdenum	0.200	0.2157		mg/L		108	80 - 120
Selenium	0.400	0.4175		mg/L		104	80 - 120

Lab Sample ID: LCS 310-436013/2-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436013

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.08078		mg/L		81	80 - 120

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

Lab Sample ID: 310-292385-1 MS
Matrix: Water
Analysis Batch: 436382

Client Sample ID: NC2MW2
Prep Type: Total/NA
Prep Batch: 436013

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.00349		0.200	0.2405		mg/L		118	75 - 125
Arsenic	0.00111	J	0.200	0.2318		mg/L		115	75 - 125
Barium	0.0769		0.100	0.1825		mg/L		106	75 - 125
Beryllium	<0.000330		0.100	0.1077		mg/L		108	75 - 125
Boron	0.826		0.200	1.017	4	mg/L		95	75 - 125
Cadmium	0.000148	J	0.100	0.1076		mg/L		107	75 - 125
Calcium	289		2.00	291.8	4	mg/L		151	75 - 125
Chromium	<0.00120		0.100	0.1088		mg/L		109	75 - 125
Cobalt	0.000467	J	0.100	0.1065		mg/L		106	75 - 125
Lead	0.000844		0.200	0.2100		mg/L		105	75 - 125
Lithium	0.0430		0.200	0.2581		mg/L		108	75 - 125
Molybdenum	0.0266		0.200	0.2386		mg/L		106	75 - 125
Selenium	0.00168	J	0.400	0.4299		mg/L		107	75 - 125

Lab Sample ID: 310-292385-1 MS
Matrix: Water
Analysis Batch: 436888

Client Sample ID: NC2MW2
Prep Type: Total/NA
Prep Batch: 436013

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.00165		0.100	0.07956		mg/L		78	75 - 125

Lab Sample ID: 310-292385-1 MSD
Matrix: Water
Analysis Batch: 436382

Client Sample ID: NC2MW2
Prep Type: Total/NA
Prep Batch: 436013

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.00349		0.200	0.2444		mg/L		120	75 - 125	2	20
Arsenic	0.00111	J	0.200	0.2369		mg/L		118	75 - 125	2	20
Barium	0.0769		0.100	0.1857		mg/L		109	75 - 125	2	20
Beryllium	<0.000330		0.100	0.1085		mg/L		109	75 - 125	1	20
Boron	0.826		0.200	1.042	4	mg/L		108	75 - 125	2	20
Cadmium	0.000148	J	0.100	0.1093		mg/L		109	75 - 125	2	20
Calcium	289		2.00	298.0	4	mg/L		461	75 - 125	2	20
Chromium	<0.00120		0.100	0.1106		mg/L		111	75 - 125	2	20
Cobalt	0.000467	J	0.100	0.1082		mg/L		108	75 - 125	2	20
Lead	0.000844		0.200	0.2202		mg/L		110	75 - 125	5	20
Lithium	0.0430		0.200	0.2622		mg/L		110	75 - 125	2	20
Molybdenum	0.0266		0.200	0.2535		mg/L		113	75 - 125	6	20
Selenium	0.00168	J	0.400	0.4386		mg/L		109	75 - 125	2	20

Lab Sample ID: 310-292385-1 MSD
Matrix: Water
Analysis Batch: 436888

Client Sample ID: NC2MW2
Prep Type: Total/NA
Prep Batch: 436013

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thallium	0.00165		0.100	0.07935		mg/L		78	75 - 125	0	20

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-436304/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 436502
Prep Batch: 436304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:04	1

Lab Sample ID: LCS 310-436304/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 436502
Prep Batch: 436304

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Mercury			0.00167	0.001694		mg/L		102	80 - 120		

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

Lab Sample ID: MB 310-435878/1
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 435878

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42.0		50.0	42.0	mg/L			10/10/24 16:19	1

Lab Sample ID: LCS 310-435878/2
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 435878

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Total Dissolved Solids			1000	1038		mg/L		104	88 - 110		

Lab Sample ID: 310-292385-5 DU
Client Sample ID: NC2MW7
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 435878

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	458			456.0		mg/L				0.4	16

HPLC/IC

Analysis Batch: 436817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	9056A	
310-292385-2	NC2MW3	Total/NA	Water	9056A	
310-292385-3	NC2MW5	Total/NA	Water	9056A	
310-292385-3	NC2MW5	Total/NA	Water	9056A	
MB 310-436817/3	Method Blank	Total/NA	Water	9056A	
LCS 310-436817/4	Lab Control Sample	Total/NA	Water	9056A	

Analysis Batch: 436854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-4	NC2MW6	Total/NA	Water	9056A	
310-292385-5	NC2MW7	Total/NA	Water	9056A	
310-292385-6	NC2MW8	Total/NA	Water	9056A	
310-292385-7	DUP2	Total/NA	Water	9056A	
MB 310-436854/3	Method Blank	Total/NA	Water	9056A	
LCS 310-436854/4	Lab Control Sample	Total/NA	Water	9056A	
310-292385-4 MS	NC2MW6	Total/NA	Water	9056A	
310-292385-4 MSD	NC2MW6	Total/NA	Water	9056A	

Metals

Prep Batch: 436013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	3005A	
310-292385-2	NC2MW3	Total/NA	Water	3005A	
310-292385-3	NC2MW5	Total/NA	Water	3005A	
310-292385-4	NC2MW6	Total/NA	Water	3005A	
310-292385-5	NC2MW7	Total/NA	Water	3005A	
310-292385-6	NC2MW8	Total/NA	Water	3005A	
310-292385-7	DUP2	Total/NA	Water	3005A	
MB 310-436013/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-436013/2-A	Lab Control Sample	Total/NA	Water	3005A	
310-292385-1 MS	NC2MW2	Total/NA	Water	3005A	
310-292385-1 MSD	NC2MW2	Total/NA	Water	3005A	

Prep Batch: 436304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	7470A	
310-292385-2	NC2MW3	Total/NA	Water	7470A	
310-292385-3	NC2MW5	Total/NA	Water	7470A	
310-292385-4	NC2MW6	Total/NA	Water	7470A	
310-292385-5	NC2MW7	Total/NA	Water	7470A	
310-292385-6	NC2MW8	Total/NA	Water	7470A	
310-292385-7	DUP2	Total/NA	Water	7470A	
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 436382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	6020B	436013
310-292385-2	NC2MW3	Total/NA	Water	6020B	436013
310-292385-3	NC2MW5	Total/NA	Water	6020B	436013

Metals (Continued)

Analysis Batch: 436382 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-4	NC2MW6	Total/NA	Water	6020B	436013
310-292385-5	NC2MW7	Total/NA	Water	6020B	436013
310-292385-6	NC2MW8	Total/NA	Water	6020B	436013
310-292385-7	DUP2	Total/NA	Water	6020B	436013
MB 310-436013/1-A	Method Blank	Total/NA	Water	6020B	436013
LCS 310-436013/2-A	Lab Control Sample	Total/NA	Water	6020B	436013
310-292385-1 MS	NC2MW2	Total/NA	Water	6020B	436013
310-292385-1 MSD	NC2MW2	Total/NA	Water	6020B	436013

Analysis Batch: 436502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	7470A	436304
310-292385-2	NC2MW3	Total/NA	Water	7470A	436304
310-292385-3	NC2MW5	Total/NA	Water	7470A	436304
310-292385-4	NC2MW6	Total/NA	Water	7470A	436304
310-292385-5	NC2MW7	Total/NA	Water	7470A	436304
310-292385-6	NC2MW8	Total/NA	Water	7470A	436304
310-292385-7	DUP2	Total/NA	Water	7470A	436304
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	436304
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	436304

Analysis Batch: 436888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	6020B	436013
310-292385-2	NC2MW3	Total/NA	Water	6020B	436013
310-292385-3	NC2MW5	Total/NA	Water	6020B	436013
310-292385-4	NC2MW6	Total/NA	Water	6020B	436013
310-292385-5	NC2MW7	Total/NA	Water	6020B	436013
310-292385-6	NC2MW8	Total/NA	Water	6020B	436013
310-292385-7	DUP2	Total/NA	Water	6020B	436013
MB 310-436013/1-A	Method Blank	Total/NA	Water	6020B	436013
310-292385-1 MS	NC2MW2	Total/NA	Water	6020B	436013
310-292385-1 MSD	NC2MW2	Total/NA	Water	6020B	436013

Analysis Batch: 437043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 310-436013/2-A	Lab Control Sample	Total/NA	Water	6020B	436013

General Chemistry

Analysis Batch: 435878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	SM 2540C	
310-292385-2	NC2MW3	Total/NA	Water	SM 2540C	
310-292385-3	NC2MW5	Total/NA	Water	SM 2540C	
310-292385-4	NC2MW6	Total/NA	Water	SM 2540C	
310-292385-5	NC2MW7	Total/NA	Water	SM 2540C	
310-292385-6	NC2MW8	Total/NA	Water	SM 2540C	
310-292385-7	DUP2	Total/NA	Water	SM 2540C	
MB 310-435878/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-435878/2	Lab Control Sample	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 435878 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-5 DU	NC2MW7	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW2
Lab Sample ID: 310-292385-1
Date Collected: 10/07/24 17:07
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 16:39
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436382	NFT2	EET CF	10/15/24 15:49
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436888	NFT2	EET CF	10/18/24 15:43
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:23
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: NC2MW3
Lab Sample ID: 310-292385-2
Date Collected: 10/07/24 15:46
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 16:51
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436382	NFT2	EET CF	10/15/24 16:07
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436888	NFT2	EET CF	10/18/24 15:50
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:25
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: NC2MW5
Lab Sample ID: 310-292385-3
Date Collected: 10/07/24 13:42
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436817	ZRI4	EET CF	10/16/24 17:03
Total/NA	Analysis	9056A		20	436817	ZRI4	EET CF	10/17/24 11:25
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436382	NFT2	EET CF	10/15/24 16:09
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		5	436888	NFT2	EET CF	10/18/24 15:52
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:27
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: NC2MW6
Lab Sample ID: 310-292385-4
Date Collected: 10/07/24 14:46
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 18:26

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW6
Lab Sample ID: 310-292385-4
Date Collected: 10/07/24 14:46
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436382	NFT2	EET CF	10/15/24 16:11
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436888	NFT2	EET CF	10/18/24 15:54
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:29
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: NC2MW7
Lab Sample ID: 310-292385-5
Date Collected: 10/07/24 17:59
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 19:02
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436382	NFT2	EET CF	10/15/24 16:13
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436888	NFT2	EET CF	10/18/24 15:56
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:31
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: NC2MW8
Lab Sample ID: 310-292385-6
Date Collected: 10/07/24 16:26
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 19:14
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436382	NFT2	EET CF	10/15/24 16:16
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436888	NFT2	EET CF	10/18/24 15:59
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:33
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: DUP2
Lab Sample ID: 310-292385-7
Date Collected: 10/07/24 00:00
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 19:51
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436382	NFT2	EET CF	10/15/24 16:18

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: DUP2
Lab Sample ID: 310-292385-7

Date Collected: 10/07/24 00:00
Matrix: Water

Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			436013	F5MW	EET CF	10/14/24 10:00
Total/NA	Analysis	6020B		1	436888	NFT2	EET CF	10/18/24 16:01
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:35
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

Method Summary

Client: Omaha Public Power District
Job ID: 310-292385-1
Project/Site: Nebraska City Unit 2 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-292385 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☑ Yes	☐ No	*If yes:* Cooler # 1 of 2
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.0 | Corrected Temp (°C): 1.0

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

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Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 2 of 2
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.3 | Corrected Temp (°C): 0.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page:
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested			
City: Omaha	TAT Requested (days):			
State, Zip: NE, 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 2	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T TSP Dodecahydrate
I Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N		
NC2MW2	10/7/2024	17:07	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW3	10/7/2024	15:46	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW5	10/7/2024	13:42	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW6	10/7/2024	14:46	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW7	10/7/2024	17:59	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW8	10/7/2024	16:26	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP2	10/7/2024	—	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Kyle K. Uhing	10/9/2024 17:05	OPPD		10-9-24 0630	ET
2		10-9-24 0800	ET			
3					10/9/24 1635	ET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No

Cooler Temperature(s) °C and Other Remarks:

10/22/2024

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292385-1

Login Number: 292385

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

eurofins | Environment Testing

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 11/6/2024 4:06:18 PM

JOB DESCRIPTION

Nebraska City Unit 2 CCR/Landfill

JOB NUMBER

310-292385-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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

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

Authorization

Generated
11/6/2024 4:06:18 PM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-292385-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.3°C and 1.0°C.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292385-1	NC2MW2	Water	10/07/24 17:07	10/09/24 16:35
310-292385-2	NC2MW3	Water	10/07/24 15:46	10/09/24 16:35
310-292385-3	NC2MW5	Water	10/07/24 13:42	10/09/24 16:35
310-292385-4	NC2MW6	Water	10/07/24 14:46	10/09/24 16:35
310-292385-5	NC2MW7	Water	10/07/24 17:59	10/09/24 16:35
310-292385-6	NC2MW8	Water	10/07/24 16:26	10/09/24 16:35
310-292385-7	DUP2	Water	10/07/24 00:00	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW2 **Lab Sample ID: 310-292385-1**

No Detections.

Client Sample ID: NC2MW3 **Lab Sample ID: 310-292385-2**

No Detections.

Client Sample ID: NC2MW5 **Lab Sample ID: 310-292385-3**

No Detections.

Client Sample ID: NC2MW6 **Lab Sample ID: 310-292385-4**

No Detections.

Client Sample ID: NC2MW7 **Lab Sample ID: 310-292385-5**

No Detections.

Client Sample ID: NC2MW8 **Lab Sample ID: 310-292385-6**

No Detections.

Client Sample ID: DUP2 **Lab Sample ID: 310-292385-7**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: NC2MW2
Lab Sample ID: 310-292385-1

Date Collected: 10/07/24 17:07
Matrix: Water

Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.148		0.104	0.105	1.00	0.148	pCi/L	10/14/24 08:44	11/05/24 07:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.1*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:42*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.49		0.530	0.548	1.00	0.665	pCi/L	10/14/24 08:49	10/30/24 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.1*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*
Y Carrier	*81.9*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.64		0.540	0.558	5.00	0.665	pCi/L		11/06/24 14:15	1

Client Sample ID: NC2MW3
Lab Sample ID: 310-292385-2

Date Collected: 10/07/24 15:46
Matrix: Water

Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.232**		0.104	0.106	1.00	0.104	pCi/L	10/14/24 08:44	11/05/24 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.610	U	0.424	0.428	1.00	0.641	pCi/L	10/14/24 08:49	10/30/24 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.5*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*
Y Carrier	*84.9*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.842**		0.437	0.441	5.00	0.641	pCi/L		11/06/24 15:51	1

Client Sample ID: NC2MW5
Lab Sample ID: 310-292385-3
Date Collected: 10/07/24 13:42
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.157		0.112	0.113	1.00	0.156	pCi/L	10/14/24 08:44	11/05/24 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03		0.500	0.509	1.00	0.677	pCi/L	10/14/24 08:49	10/30/24 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*
Y Carrier	*83.7*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.19		0.512	0.521	5.00	0.677	pCi/L		11/06/24 15:51	1

Client Sample ID: NC2MW6
Date Collected: 10/07/24 14:46
Date Received: 10/09/24 16:35

Lab Sample ID: 310-292385-4
Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220		0.113	0.114	1.00	0.135	pCi/L	10/14/24 08:44	11/05/24 07:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.7*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:43*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.851		0.428	0.435	1.00	0.586	pCi/L	10/14/24 08:49	10/30/24 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.7*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*
Y Carrier	*85.6*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.07		0.443	0.450	5.00	0.586	pCi/L		11/06/24 14:15	1

Client Sample Results

Client: Omaha Public Power District
Project/Site: Nebraska City Unit 2 CCR/Landfill

Job ID: 310-292385-2

Client Sample ID: NC2MW7

Date Collected: 10/07/24 17:59
Date Received: 10/09/24 16:35

Lab Sample ID: 310-292385-5

Matrix: Water

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.335		0.119	0.123	1.00	0.110	pCi/L	10/14/24 08:44	11/05/24 07:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.922		0.391	0.400	1.00	0.509	pCi/L	10/14/24 08:49	10/30/24 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.9*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*
Y Carrier	*88.6*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.26		0.409	0.418	5.00	0.509	pCi/L		11/06/24 15:51	1

Client Sample ID: NC2MW8
Lab Sample ID: 310-292385-6
Date Collected: 10/07/24 16:26
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.332		0.119	0.123	1.00	0.115	pCi/L	10/14/24 08:44	11/05/24 07:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.963		0.386	0.396	1.00	0.484	pCi/L	10/14/24 08:49	10/30/24 12:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*
Y Carrier	*85.2*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.29		0.404	0.415	5.00	0.484	pCi/L		11/06/24 15:51	1

Client Sample ID: DUP2

Lab Sample ID: 310-292385-7

Date Collected: 10/07/24 00:00

Matrix: Water

Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.284		0.116	0.119	1.00	0.117	pCi/L	10/14/24 08:44	11/05/24 07:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.1*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:44*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.885		0.424	0.432	1.00	0.583	pCi/L	10/14/24 08:49	10/30/24 12:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.1*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:06*	*1*
Y Carrier	*86.0*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:06*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.17		0.440	0.448	5.00	0.583	pCi/L		11/06/24 15:51	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Qualifiers

Rad

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

Glossary

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

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-683395/1-A
Matrix: Water
Analysis Batch: 686849

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683395

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03677	U	0.0637	0.0638	1.00	0.113	pCi/L	10/14/24 08:44	11/05/24 07:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*30 - 110*	*10/14/24 08:44*	*11/05/24 07:42*	*1*

Lab Sample ID: LCS 160-683395/2-A
Matrix: Water
Analysis Batch: 686849

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683395

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	8.893		0.973	1.00	0.106	pCi/L	93	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.9*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-683398/1-A
Matrix: Water
Analysis Batch: 685958

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 683398

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.09416	U	0.306	0.306	1.00	0.591	pCi/L	10/14/24 08:49	10/30/24 12:05	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.6*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*
Y Carrier	*86.4*		*30 - 110*	*10/14/24 08:49*	*10/30/24 12:05*	*1*

Lab Sample ID: LCS 160-683398/2-A
Matrix: Water
Analysis Batch: 685958

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 683398

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.39	9.187		1.26	1.00	0.559	pCi/L	110	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*90.9*		*30 - 110*
Y Carrier	*87.5*		*30 - 110*

QC Association Summary

Client: Omaha Public Power District
Project/Site: Nebraska City Unit 2 CCR/Landfill

Job ID: 310-292385-2

Rad

Prep Batch: 683395

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	PrecSep-21	
310-292385-2	NC2MW3	Total/NA	Water	PrecSep-21	
310-292385-3	NC2MW5	Total/NA	Water	PrecSep-21	
310-292385-4	NC2MW6	Total/NA	Water	PrecSep-21	
310-292385-5	NC2MW7	Total/NA	Water	PrecSep-21	
310-292385-6	NC2MW8	Total/NA	Water	PrecSep-21	
310-292385-7	DUP2	Total/NA	Water	PrecSep-21	
MB 160-683395/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-683395/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 683398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292385-1	NC2MW2	Total/NA	Water	PrecSep_0	
310-292385-2	NC2MW3	Total/NA	Water	PrecSep_0	
310-292385-3	NC2MW5	Total/NA	Water	PrecSep_0	
310-292385-4	NC2MW6	Total/NA	Water	PrecSep_0	
310-292385-5	NC2MW7	Total/NA	Water	PrecSep_0	
310-292385-6	NC2MW8	Total/NA	Water	PrecSep_0	
310-292385-7	DUP2	Total/NA	Water	PrecSep_0	
MB 160-683398/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-683398/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW2
Lab Sample ID: 310-292385-1
Date Collected: 10/07/24 17:07
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683395	BCE	EET SL	10/14/24 08:44
Total/NA	Analysis	9315		1	686849	CMM	EET SL	11/05/24 07:42
Total/NA	Prep	PrecSep_0			683398	BCE	EET SL	10/14/24 08:49
Total/NA	Analysis	9320		1	685958	FLC	EET SL	10/30/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	686854	FLC	EET SL	11/06/24 14:15

Client Sample ID: NC2MW3
Lab Sample ID: 310-292385-2
Date Collected: 10/07/24 15:46
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683395	BCE	EET SL	10/14/24 08:44
Total/NA	Analysis	9315		1	686849	CMM	EET SL	11/05/24 07:43
Total/NA	Prep	PrecSep_0			683398	BCE	EET SL	10/14/24 08:49
Total/NA	Analysis	9320		1	685958	FLC	EET SL	10/30/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	686854	FLC	EET SL	11/06/24 15:51

Client Sample ID: NC2MW5
Lab Sample ID: 310-292385-3
Date Collected: 10/07/24 13:42
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683395	BCE	EET SL	10/14/24 08:44
Total/NA	Analysis	9315		1	686849	CMM	EET SL	11/05/24 07:43
Total/NA	Prep	PrecSep_0			683398	BCE	EET SL	10/14/24 08:49
Total/NA	Analysis	9320		1	685958	FLC	EET SL	10/30/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	686854	FLC	EET SL	11/06/24 15:51

Client Sample ID: NC2MW6
Lab Sample ID: 310-292385-4
Date Collected: 10/07/24 14:46
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683395	BCE	EET SL	10/14/24 08:44
Total/NA	Analysis	9315		1	686849	CMM	EET SL	11/05/24 07:43
Total/NA	Prep	PrecSep_0			683398	BCE	EET SL	10/14/24 08:49
Total/NA	Analysis	9320		1	685958	FLC	EET SL	10/30/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	686854	FLC	EET SL	11/06/24 14:15

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Client Sample ID: NC2MW7
Lab Sample ID: 310-292385-5

Date Collected: 10/07/24 17:59
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683395	BCE	EET SL	10/14/24 08:44
Total/NA	Analysis	9315		1	686849	CMM	EET SL	11/05/24 07:44
Total/NA	Prep	PrecSep_0			683398	BCE	EET SL	10/14/24 08:49
Total/NA	Analysis	9320		1	685958	FLC	EET SL	10/30/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	686854	FLC	EET SL	11/06/24 15:51

Client Sample ID: NC2MW8
Lab Sample ID: 310-292385-6

Date Collected: 10/07/24 16:26
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683395	BCE	EET SL	10/14/24 08:44
Total/NA	Analysis	9315		1	686849	CMM	EET SL	11/05/24 07:44
Total/NA	Prep	PrecSep_0			683398	BCE	EET SL	10/14/24 08:49
Total/NA	Analysis	9320		1	685958	FLC	EET SL	10/30/24 12:05
Total/NA	Analysis	Ra226_Ra228		1	686854	FLC	EET SL	11/06/24 15:51

Client Sample ID: DUP2
Lab Sample ID: 310-292385-7

Date Collected: 10/07/24 00:00
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683395	BCE	EET SL	10/14/24 08:44
Total/NA	Analysis	9315		1	686849	CMM	EET SL	11/05/24 07:44
Total/NA	Prep	PrecSep_0			683398	BCE	EET SL	10/14/24 08:49
Total/NA	Analysis	9320		1	685958	FLC	EET SL	10/30/24 12:06
Total/NA	Analysis	Ra226_Ra228		1	686854	FLC	EET SL	11/06/24 15:51

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

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

Laboratory References:

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

eurofins | Environment Testing America

310-292385 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/21 | TIME 1635 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☑ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☑ Yes	☐ No	*If yes:* Cooler # 1 of 2
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 1.0 | Corrected Temp (°C): 1.0

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

eurofins | Environment Testing America

Place COC scanning label here

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes	☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☒ Yes	☐ No	*If yes:* Cooler # 2 of 2
Cooler Custody Seals Present?	☐ Yes	☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes	☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes	☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• **Temp Blank Temperature** – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.3 | Corrected Temp (°C): 0.3

• **Sample Container Temperature**

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g , bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE If yes, contact PM before proceeding If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page:
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested			
City: Omaha	TAT Requested (days):			
State, Zip: NE, 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 2	SSOW#:			

Analysis Requested

Preservation Codes.

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T TSP Dodecahydrate
I Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N		
NC2MW2	10/7/2024	17:07	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW3	10/7/2024	15:46	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW5	10/7/2024	13:42	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW6	10/7/2024	14:46	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW7	10/7/2024	17:59	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
NC2MW8	10/7/2024	16:26	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
DUP2	10/7/2024	—	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Kyle K. Uhing	10/9/2024 17:05	OPPD		10-9-24 0630	ET
2		10-9-24 0800	ET			
3					10/9/24 1635	ET

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks:

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-77220.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-292385-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 10/22/2024			Preservation Codes: -
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Unit 2 CCR/Landfill	Project #: 31007559			Other:
Site: 310 OPPD Nebraska City Unit 2	SSOW#:			

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC2MW2 (310-292385-1)	10/7/24	17:07 Central	G	Water			X	X	X	2	
NC2MW3 (310-292385-2)	10/7/24	15:46 Central	G	Water			X	X	X	2	
NC2MW5 (310-292385-3)	10/7/24	13:42 Central	G	Water			X	X	X	2	
NC2MW6 (310-292385-4)	10/7/24	14:46 Central	G	Water			X	X	X	2	
NC2MW7 (310-292385-5)	10/7/24	17:59 Central	G	Water			X	X	X	2	
NC2MW8 (310-292385-6)	10/7/24	16:26 Central	G	Water			X	X	X	2	
DUP2 (310-292385-7)	10/7/24	Central	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)***
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292385-2

Login Number: 292385

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292385-2

Login Number: 292385
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 10/11/24 12:04 PM

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

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-292385-2
Project/Site: Nebraska City Unit 2 CCR/Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-292385-1	NC2MW2	84.1
310-292385-2	NC2MW3	79.5
310-292385-3	NC2MW5	92.7
310-292385-4	NC2MW6	78.7
310-292385-5	NC2MW7	90.9
310-292385-6	NC2MW8	91.4
310-292385-7	DUP2	85.1
LCS 160-683395/2-A	Lab Control Sample	90.9
MB 160-683395/1-A	Method Blank	90.6

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-292385-1	NC2MW2	84.1	81.9
310-292385-2	NC2MW3	79.5	84.9
310-292385-3	NC2MW5	92.7	83.7
310-292385-4	NC2MW6	78.7	85.6
310-292385-5	NC2MW7	90.9	88.6
310-292385-6	NC2MW8	91.4	85.2
310-292385-7	DUP2	85.1	86.0
LCS 160-683398/2-A	Lab Control Sample	90.9	87.5
MB 160-683398/1-A	Method Blank	90.6	86.4

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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

ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 10/22/2024 10:54:18 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR/Landfill

JOB NUMBER

310-292386-1

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

myEOL

Job Notes

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

Authorization

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Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job Narrative
310-292386-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

HPLC/IC
Method 9056A_ORGFM_28D: The following sample was diluted due to the nature of the sample matrix: MW13 (310-292386-2). Elevated reporting limits (RLs) are provided.

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

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292386-1	NC2MW4	Water	10/07/24 11:16	10/09/24 16:35
310-292386-2	MW13	Water	10/07/24 10:40	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4 — Lab Sample ID: 310-292386-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.55		5.00	2.25	mg/L	5		9056A	Total/NA
Fluoride	0.511	J	1.00	0.375	mg/L	5		9056A	Total/NA
Sulfate	52.3		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.00115	J	0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.375		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.158		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	133		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000228	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000616		0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0366		0.0100	0.00250	mg/L	1		6020B	Total/NA
Molybdenum	0.00623		0.00200	0.00130	mg/L	1		6020B	Total/NA
Selenium	0.00567		0.00500	0.00140	mg/L	1		6020B	Total/NA
Total Dissolved Solids	470		50.0	42.0	mg/L	1		SM 2540C	Total/NA

Client Sample ID: MW13 — Lab Sample ID: 310-292386-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	12.2		5.00	2.25	mg/L	5		9056A	Total/NA
Sulfate	59.3		5.00	2.10	mg/L	5		9056A	Total/NA
Arsenic	0.0122		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.329		0.00200	0.000660	mg/L	1		6020B	Total/NA
Boron	0.114		0.100	0.0760	mg/L	1		6020B	Total/NA
Calcium	137		0.500	0.190	mg/L	1		6020B	Total/NA
Cobalt	0.000292	J	0.000500	0.000170	mg/L	1		6020B	Total/NA
Lead	0.000310	J	0.000500	0.000260	mg/L	1		6020B	Total/NA
Lithium	0.0380		0.0100	0.00250	mg/L	1		6020B	Total/NA
Total Dissolved Solids	534		50.0	42.0	mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1
Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**5.55**		5.00	2.25	mg/L			10/17/24 20:03	5
Fluoride	**0.511**	**J**	1.00	0.375	mg/L			10/17/24 20:03	5
Sulfate	**52.3**		5.00	2.10	mg/L			10/17/24 20:03	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:20	1
Arsenic	**0.00115**	**J**	0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:20	1
Barium	**0.375**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:20	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:20	1
Boron	**0.158**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:20	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:20	1
Calcium	**133**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:20	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:20	1
Cobalt	**0.000228**	**J**	0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:20	1
Lead	**0.000616**		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:20	1
Lithium	**0.0366**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:20	1
Molybdenum	**0.00623**		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:20	1
Selenium	**0.00567**		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:20	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:18	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**470**		50.0	42.0	mg/L			10/10/24 16:19	1

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: MW13
Lab Sample ID: 310-292386-2
Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9056A - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.2**		5.00	2.25	mg/L			10/17/24 20:15	5
Fluoride	<0.375		1.00	0.375	mg/L			10/17/24 20:15	5
Sulfate	**59.3**		5.00	2.10	mg/L			10/17/24 20:15	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 14:22	1
Arsenic	**0.0122**		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 14:22	1
Barium	**0.329**		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 14:22	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 14:22	1
Boron	**0.114**		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 14:22	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 14:22	1
Calcium	**137**		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 14:22	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 14:22	1
Cobalt	**0.000292**	**J**	0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 14:22	1
Lead	**0.000310**	**J**	0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 14:22	1
Lithium	**0.0380**		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 14:22	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 14:22	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 14:22	1
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 15:20	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (SM 2540C)	**534**		50.0	42.0	mg/L			10/10/24 16:19	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Qualifiers

HPLC/IC

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

Metals

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

Glossary

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

Method: 9056A - Anions, Ion Chromatography

Lab Sample ID: MB 310-436854/3
Matrix: Water
Analysis Batch: 436854

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.450		1.00	0.450	mg/L			10/17/24 15:23	1
Fluoride	<0.0750		0.200	0.0750	mg/L			10/17/24 15:23	1
Sulfate	<0.420		1.00	0.420	mg/L			10/17/24 15:23	1

Lab Sample ID: LCS 310-436854/4
Matrix: Water
Analysis Batch: 436854

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.0	9.857		mg/L		99	90 - 110
Fluoride	2.00	1.998		mg/L		100	90 - 110
Sulfate	10.0	10.13		mg/L		101	90 - 110

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-435877/1-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00100		0.00200	0.00100	mg/L		10/11/24 09:30	10/16/24 13:11	1
Arsenic	<0.000530		0.00200	0.000530	mg/L		10/11/24 09:30	10/16/24 13:11	1
Barium	<0.000660		0.00200	0.000660	mg/L		10/11/24 09:30	10/16/24 13:11	1
Beryllium	<0.000330		0.00100	0.000330	mg/L		10/11/24 09:30	10/16/24 13:11	1
Boron	<0.0760		0.100	0.0760	mg/L		10/11/24 09:30	10/16/24 13:11	1
Cadmium	<0.000100		0.000200	0.000100	mg/L		10/11/24 09:30	10/16/24 13:11	1
Calcium	<0.190		0.500	0.190	mg/L		10/11/24 09:30	10/16/24 13:11	1
Chromium	<0.00120		0.00500	0.00120	mg/L		10/11/24 09:30	10/16/24 13:11	1
Cobalt	<0.000170		0.000500	0.000170	mg/L		10/11/24 09:30	10/16/24 13:11	1
Lead	<0.000260		0.000500	0.000260	mg/L		10/11/24 09:30	10/16/24 13:11	1
Lithium	<0.00250		0.0100	0.00250	mg/L		10/11/24 09:30	10/16/24 13:11	1
Molybdenum	<0.00130		0.00200	0.00130	mg/L		10/11/24 09:30	10/16/24 13:11	1
Selenium	<0.00140		0.00500	0.00140	mg/L		10/11/24 09:30	10/16/24 13:11	1

Lab Sample ID: MB 310-435877/1-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 435877

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	<0.000570		0.00100	0.000570	mg/L		10/11/24 09:30	10/21/24 14:29	1

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2160		mg/L		108	80 - 120
Arsenic	0.200	0.2158		mg/L		108	80 - 120
Barium	0.100	0.1053		mg/L		105	80 - 120
Beryllium	0.100	0.1035		mg/L		103	80 - 120

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

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 436544

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Boron	0.200	0.2199		mg/L		110	80 - 120
Cadmium	0.100	0.1024		mg/L		102	80 - 120
Calcium	2.00	2.093		mg/L		105	80 - 120
Chromium	0.100	0.1072		mg/L		107	80 - 120
Cobalt	0.100	0.1038		mg/L		104	80 - 120
Lead	0.200	0.2190		mg/L		109	80 - 120
Lithium	0.200	0.2148		mg/L		107	80 - 120
Molybdenum	0.200	0.2058		mg/L		103	80 - 120
Selenium	0.400	0.4050		mg/L		101	80 - 120

Lab Sample ID: LCS 310-435877/2-A
Matrix: Water
Analysis Batch: 437043

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 435877

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Thallium	0.100	0.08547		mg/L		85	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 310-436304/1-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 436304

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000110		0.000200	0.000110	mg/L		10/15/24 15:55	10/16/24 15:04	1

Lab Sample ID: LCS 310-436304/2-A
Matrix: Water
Analysis Batch: 436502

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 436304

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00167	0.001694		mg/L		102	80 - 120

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

Lab Sample ID: MB 310-435878/1
Matrix: Water
Analysis Batch: 435878

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<42.0		50.0	42.0	mg/L			10/10/24 16:19	1

Lab Sample ID: LCS 310-435878/2
Matrix: Water
Analysis Batch: 435878

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids	1000	1038		mg/L		104	88 - 110

HPLC/IC

Analysis Batch: 436854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	9056A	
310-292386-2	MW13	Total/NA	Water	9056A	
MB 310-436854/3	Method Blank	Total/NA	Water	9056A	
LCS 310-436854/4	Lab Control Sample	Total/NA	Water	9056A	

Metals

Prep Batch: 435877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	3005A	
310-292386-2	MW13	Total/NA	Water	3005A	
MB 310-435877/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	3005A	

Prep Batch: 436304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	7470A	
310-292386-2	MW13	Total/NA	Water	7470A	
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 436502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	7470A	436304
310-292386-2	MW13	Total/NA	Water	7470A	436304
MB 310-436304/1-A	Method Blank	Total/NA	Water	7470A	436304
LCS 310-436304/2-A	Lab Control Sample	Total/NA	Water	7470A	436304

Analysis Batch: 436544

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	6020B	435877
310-292386-2	MW13	Total/NA	Water	6020B	435877
MB 310-435877/1-A	Method Blank	Total/NA	Water	6020B	435877
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	6020B	435877

Analysis Batch: 437043

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	6020B	435877
310-292386-2	MW13	Total/NA	Water	6020B	435877
MB 310-435877/1-A	Method Blank	Total/NA	Water	6020B	435877
LCS 310-435877/2-A	Lab Control Sample	Total/NA	Water	6020B	435877

General Chemistry

Analysis Batch: 435878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	SM 2540C	
310-292386-2	MW13	Total/NA	Water	SM 2540C	
MB 310-435878/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 310-435878/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1

Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 20:03
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:20
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:18
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:48
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Client Sample ID: MW13
Lab Sample ID: 310-292386-2

Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9056A		5	436854	HE7K	EET CF	10/17/24 20:15
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	436544	A6US	EET CF	10/16/24 14:22
Total/NA	Prep	3005A			435877	F5MW	EET CF	10/11/24 09:30
Total/NA	Analysis	6020B		1	437043	NFT2	EET CF	10/21/24 15:20
Total/NA	Prep	7470A			436304	QTZ5	EET CF	10/15/24 15:55
Total/NA	Analysis	7470A		1	436502	QTZ5	EET CF	10/16/24 15:50
Total/NA	Analysis	SM 2540C		1	435878	ENB7	EET CF	10/10/24 16:19

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	IA100001	09-29-25

Method Summary

Client: Omaha Public Power District
Job ID: 310-292386-1
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9056A	Anions, Ion Chromatography	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
7470A	Mercury (CVAA)	SW846	EET CF
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
7470A	Preparation, Mercury	SW846	EET CF

Protocol References:

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

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

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

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310-292386 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes ☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present? No	☐ Yes ☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐
Sample Custody Seals Present? No	☐ Yes ☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐
Trip Blank Present?	☐ Yes ☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.1 | Corrected Temp (°C): 0.1

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page:
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested:			
City: Omaha	TAT Requested (days):			
State, Zip: NE, 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 1 & 2	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL	M Hexane
B - NaOH	N - None
C Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N		
NC2MW4	10/7/2024	11:16	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	10/7/2024	10:40	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Kyle K. Uhing	10/8/2024 17:05	OPPD		10-9-24 0630	LT
Relinquished by:	Date/Time: 10-9-24 0600	Company LT	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 10/9/24 1637	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292386-1

SDG Number:

Login Number: 292386

List Source: Eurofins Cedar Falls

List Number: 1

Creator: Homolar, Dana J

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

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ANALYTICAL REPORT

PREPARED FOR

Attn: Kyle Uhing
Omaha Public Power District
Attn: Accounts Payable, 4E/EP-5
444 South 16th Street Mall
Omaha, Nebraska 68102-2247

Generated 11/8/2024 10:03:36 AM

JOB DESCRIPTION

Nebraska City Unit 1 & 2 CCR/Landfill

JOB NUMBER

310-292386-2

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls IA 50613

See page two for job notes and contact information.

Job Notes

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

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

Authorization

Generated
11/8/2024 10:03:36 AM

Authorized for release by
Bob Michels, Project Manager I
Bob.Michels@et.eurofinsus.com
(319)277-2401

Table of Contents

Job ID: 310-292386-2 — Eurofins Cedar Falls

Job Narrative
310-292386-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/9/2024 4:35 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C.

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

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

Sample Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-292386-1	NC2MW4	Water	10/07/24 11:16	10/09/24 16:35
310-292386-2	MW13	Water	10/07/24 10:40	10/09/24 16:35

Detection Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1

No Detections.

Client Sample ID: MW13
Lab Sample ID: 310-292386-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1
Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.283		0.106	0.109	1.00	0.104	pCi/L	10/15/24 08:08	11/06/24 09:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:27*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.07		0.596	0.659	1.00	0.504	pCi/L	10/15/24 08:17	10/27/24 11:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*
Y Carrier	*80.0*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.35		0.605	0.668	5.00	0.504	pCi/L		11/07/24 15:24	1

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: MW13
Lab Sample ID: 310-292386-2
Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Method: SW846 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.169		0.0883	0.0896	1.00	0.106	pCi/L	10/15/24 08:08	11/06/24 09:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:28*	*1*

Method: SW846 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	3.36		0.632	0.703	1.00	0.539	pCi/L	10/15/24 08:17	10/27/24 11:39	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.3*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*
Y Carrier	*78.5*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:39*	*1*

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.53		0.638	0.709	5.00	0.539	pCi/L		11/07/24 15:24	1

Definitions/Glossary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Qualifiers

Rad

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

Glossary

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

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-683568/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 687156
Prep Batch: 683568

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.05652	U	0.0614	0.0616	1.00	0.0976	pCi/L	10/15/24 08:08	11/06/24 09:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.9*		*30 - 110*	*10/15/24 08:08*	*11/06/24 09:28*	*1*

Lab Sample ID: LCS 160-683568/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 687133
Prep Batch: 683568

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-226			9.58	9.197		0.975	1.00	0.116	pCi/L	96	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-683569/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 685362
Prep Batch: 683569

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.6667		0.353	0.359	1.00	0.494	pCi/L	10/15/24 08:17	10/27/24 11:36	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.9*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:36*	*1*
Y Carrier	*81.9*		*30 - 110*	*10/15/24 08:17*	*10/27/24 11:36*	*1*

Lab Sample ID: LCS 160-683569/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 685362
Prep Batch: 683569

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228			8.39	10.30		1.75	1.00	1.05	pCi/L	123	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*91.1*		*30 - 110*
Y Carrier	*80.0*		*30 - 110*

QC Association Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Rad

Prep Batch: 683568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	PrecSep-21	
310-292386-2	MW13	Total/NA	Water	PrecSep-21	
MB 160-683568/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-683568/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	

Prep Batch: 683569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-292386-1	NC2MW4	Total/NA	Water	PrecSep_0	
310-292386-2	MW13	Total/NA	Water	PrecSep_0	
MB 160-683569/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-683569/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

Lab Chronicle

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Client Sample ID: NC2MW4
Lab Sample ID: 310-292386-1

Date Collected: 10/07/24 11:16
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683568	BCE	EET SL	10/15/24 08:08
Total/NA	Analysis	9315		1	687156	SWS	EET SL	11/06/24 09:27
Total/NA	Prep	PrecSep_0			683569	BCE	EET SL	10/15/24 08:17
Total/NA	Analysis	9320		1	685362	FLC	EET SL	10/27/24 11:39
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Client Sample ID: MW13
Lab Sample ID: 310-292386-2

Date Collected: 10/07/24 10:40
Matrix: Water
Date Received: 10/09/24 16:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	PrecSep-21			683568	BCE	EET SL	10/15/24 08:08
Total/NA	Analysis	9315		1	687156	SWS	EET SL	11/06/24 09:28
Total/NA	Prep	PrecSep_0			683569	BCE	EET SL	10/15/24 08:17
Total/NA	Analysis	9320		1	685362	FLC	EET SL	10/27/24 11:39
Total/NA	Analysis	Ra226_Ra228		1	687440	FLC	EET SL	11/07/24 15:24

Laboratory References:

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

Accreditation/Certification Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-08-25
ANAB	ISO/IEC 17025	L2305	04-06-25
Arizona	State	AZ0813	12-08-24
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-24
Kentucky (DW)	State	KY90125	12-31-24
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-24
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-24
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	12-31-24
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	EET SL
9320	Radium-228 (GFPC)	SW846	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

None = None

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

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

Laboratory References:

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

eurofins | Environment Testing America

310-292386 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: OPPD

City/State: CITY | STATE | Project:

Receipt Information

Date/Time Received: DATE 10/9/24 | TIME 1635 | Received By: XB

Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes:* Cooler ID:
Multiple Coolers?	☐ Yes ☒ No	*If yes:* Cooler # _____ of _____
Cooler Custody Seals Present?	☐ Yes ☒ No	*If yes:* Cooler custody seals intact? ☐ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☒ No	*If yes:* Sample custody seals intact? ☐ Yes ☐ No
Trip Blank Present?	☐ Yes ☒ No	*If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Thermometer ID: Y | Correction Factor (°C): 0

• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature

Uncorrected Temp (°C): 0.1 | Corrected Temp (°C): 0.1

• Sample Container Temperature

	CONTAINER 1	CONTAINER 2
Container(s) used:		
Uncorrected Temp (°C):		
Corrected Temp (°C):		

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No

NOTE. If yes, contact PM before proceeding If no, proceed with login

Additional Comments

TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls IA 50613
Phone (319) 277-2401 Fax (319) 277-2425

Chain of Custody Record

TestAmerica

Client Information	Sampler: Kyle K. Uhing	Lab PM: ~~Hayes, Shawn M~~ Bob Michels	Carrier Tracking No(s):	COC No:
Client Contact: Kyle Uhing	Phone: (531) 226-2515	E-Mail: ~~shawn.hayes@testamericainc.com~~		Page:
Company: Omaha Public Power District				Job #:
Address: 444 South 16th Street Mall 9E/EP1	Due Date Requested:			
City: Omaha	TAT Requested (days):			
State, Zip: NE, 68102-2247				
Phone: (531) 226-2515	PO #:			
Email: kkuhing@oppd.com	WO #:			
Project Name: Nebraska City Station Unit 1 & 2 CCR / Landfill	TestAmerica Project #: 31007559			
Site: Nebraska City Station Unit 1 & 2	SSOW#:			

Analysis Requested

Preservation Codes

A - HCL	M Hexane
B - NaOH	N - None
C Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315 Ra226, 9320 Ra228, Combined Ra226 and Ra228	Total 6020A CCR Appendix III and IV, 7470A Mercury	2540C TDS, 9056A Chloride, Fluoride, Sulfate	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	D	N		
NC2MW4	10/7/2024	11:16	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents
MW13	10/7/2024	10:40	G	W	N		X	X	X	4	CCR Appendix III and IV Constituents

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Kyle K. Uhing	10/8/2024 17:05	OPPD		10-9-24 0630	LT
2	Relinquished by	Date/Time 10-9-24 0600	LT	Received by	Date/Time	Company
3	Relinquished by	Date/Time:	Company	Received by	Date/Time 10/9/24 1637	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.

Cooler Temperature(s) °C and Other Remarks:

11/8/2024

Eurofins Cedar Falls
3019 Venture Way
Cedar Falls, IA 50613
Phone: 319-277-2401 Fax: 319-277-2425

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Michels, Bob C	Carrier Tracking No(s):	COC No: 310-77220.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Bob.Michels@et.eurofinsus.com	State of Origin: Nebraska	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Oregon		Job #: 310-292386-2
Address: 13715 Rider Trail North, ,	Due Date Requested: 11/12/2024			
City: Earth City	TAT Requested (days):			
State, Zip: MO, 63045				
Phone: 314-298-8566(Tel) 314-298-8757(Fax)	PO #:			
Email:	WO #:			
Project Name: Nebraska City Unit 1 & 2 CCR/Landfill	Project #: 31007559			
Site: 310 OPPD Nebraska City Unit 2	SSOW#:			

Analysis Requested

Preservation Codes: -

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226/PrecSep_21 Radium-226 (GFPC) - 21 day decay	9320_Ra228/PrecSep_0 Radium-228 (GFPC)	Ra226Ra228_GFPC/ Combined Radium-226 and Radium-228	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NC2MW4 (310-292386-1)	10/7/24	11:16 Central	G	Water			X	X	X	2	
MW13 (310-292386-2)	10/7/24	10:40 Central	G	Water			X	X	X	2	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing North Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing North Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing North Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing North Central, LLC.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10/9/24 1015	Company	Received by: Sierra Worthington	Date/Time: OCT 11 2024 0915	Company GEL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: ∆ Yes ∆ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292386-2
SDG Number:

Login Number: 292386
List Number: 1
Creator: Homolar, Dana J

List Source: Eurofins Cedar Falls

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

Login Sample Receipt Checklist

Client: Omaha Public Power District

Job Number: 310-292386-2
SDG Number:

Login Number: 292386
List Number: 2
Creator: Worthington, Sierra M

List Source: Eurofins St. Louis
List Creation: 10/11/24 12:04 PM

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

Tracer/Carrier Summary

Client: Omaha Public Power District
Job ID: 310-292386-2
Project/Site: Nebraska City Unit 1 & 2 CCR/Landfill

Method: 9315 - Radium-226 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)
		Ba
Lab Sample ID	Client Sample ID	(30-110)
310-292386-1	NC2MW4	85.6
310-292386-2	MW13	86.3
LCS 160-683568/2-A	Lab Control Sample	91.1
MB 160-683568/1-A	Method Blank	91.9

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 9320 - Radium-228 (GFPC)

Matrix: Water **Prep Type: Total/NA**

		Percent Yield (Acceptance Limits)	
		Ba	Y
Lab Sample ID	Client Sample ID	(30-110)	(30-110)
310-292386-1	NC2MW4	85.6	80.0
310-292386-2	MW13	86.3	78.5
LCS 160-683569/2-A	Lab Control Sample	91.1	80.0
MB 160-683569/1-A	Method Blank	91.9	81.9

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

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Appendix C

April 2024 & October 2024
Statistical Memos

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Technical Memorandum

Date:	Friday, June 28, 2024
To:	Omaha Public Power District (OPPD)
From:	HDR Engineering, Inc.
Subject:	Summary of Statistical Analysis and Evaluation for SSLs Nebraska City Station NC2 Ash Disposal Area NDEE Title 132 & Federal CCR Groundwater Monitoring Network

Omaha Public Power District operates a two-unit (Unit 1 and Unit 2) fossil fuel-fired generating plant at the Nebraska City Station, herein referenced as “Station” or “Site”. The Station is located southeast of Nebraska City, Nebraska. The Station has two existing coal combustion residuals (CCR) landfills for fossil fuel combustion ash disposal known as the NC1 Ash Disposal Area and the NC2 Ash Disposal Area. Both NC1 and NC2 Ash Disposal Areas are subject to the United States Environmental Protection Agency’s final CCR rule promulgated under U.S. Code of Federal Regulations (CFR), Title 40, Part 257 and Nebraska Department of Environment and Energy’s Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the NC2 Ash Disposal Area. The NC2 Ash Disposal Area is a CCR landfill permitted under the Title 132 regulations for 40.7 acres. Cell 1 was constructed in 2008/2009. The NC2 Ash Disposal Area Cells 2 and 3 and West Leachate Pond were completed in January 2018. Cells 1 through 3 were constructed with a composite liner and leachate collection system.

Groundwater sampling was completed as part of an assessment monitoring program for the NC2 Ash Disposal Area, as specified in 40 CFR §257.95(d) and Title 132 Chapter 7 Section 005.06. The statistical analysis of groundwater data was performed in accordance with the methods described in the *Groundwater Monitoring Statistical Methods Certification*, amended December 2021, and the facility’s most recent Groundwater Sampling and Analysis Plan (dated January 4, 2019; revised March 1, 2019) as permitted under Title 132. The background ranges should be evaluated every two years, in accordance with Chapter 21 of the EPA’s Statistical Analysis of Groundwater Monitoring Data – Unified Guidance (EPA, 2009). The background threshold values (BTVs) were updated as part of the April 2024 sampling event and will be reevaluated following the spring 2026 sampling event. The current BTVs were calculated with data obtained during monitoring events performed between March 2016 and April 2024.

Downgradient sampling results from the spring 2024 assessment monitoring were used to evaluate for statistically significant increases (SSIs) over background and statistically significant levels (SSLs) over the groundwater protection standards (GWPS). The calculated BTVs and the evaluation for SSIs for the Appendix III (herein referred to as “detection monitoring”) constituents and Appendix IV (herein referred to as “assessment monitoring”) constituents are provided in **Table D-1**. The calculated lower confidence levels and the evaluation for SSLs over the GWPS for the assessment monitoring constituents are provided in **Table D-2**. The calculated upper confidence levels and the evaluation for SSLs over the GWPS for the corrective action monitoring constituents are provided in **Table D-3**.

Table D-1. Summary of Evaluations for SSIs over Background (April 2024)

		Well ID:	NC2MW-2	NC2MW-3	NC2MW-6	NC2MW-7	NC2MW-8
Constituent	*BTV (UPL):*	*Unit*	*Assessment Monitoring Results*				
Appendix III (Detection Monitoring) Constituents							
Boron	*4.63*	*mg/L*	0.602	0.384	1.98	0.176	0.101
Calcium	*223*	*mg/L*	**328**	198	142	123	114
Chloride	*36.6*	*mg/L*	35.3	7.42	7.41	9.91	9.30
Fluoride	*1.89*	*mg/L*	<0.375	0.844J	<0.375	<0.375	<0.375
pH	*6.33 – 7.87**	*SU*	6.44	6.76	6.56	7.13	6.80
Sulfate	*611*	*mg/L*	**719**	355	129	4.70J	58.9
TDS	*1,390*	*mg/L*	1350	1030	610	464	418
Appendix IV (Assessment Monitoring) Constituents							
Antimony	*0.002*	*mg/L*	**0.00261**	<0.00100	<0.00100	<0.00100	<0.00100
Arsenic	*0.0411*	*mg/L*	0.000969J	0.00157J	0.000552J	**0.0456**	0.00743
Barium	*0.473*	*mg/L*	0.0880	0.0666	0.144	**0.608**	**0.480**
Beryllium	*0.001*	*mg/L*	<0.000330	<0.000330	<0.000330	<0.000330	<0.000330
Cadmium	*0.0005*	*mg/L*	0.000137J	<0.000100	<0.000100	<0.000100	<0.000100
Chromium	*0.00500*	*mg/L*	<0.00120	<0.00120	0.00199J	<0.00120	<0.00120
Cobalt	*0.00236*	*mg/L*	0.000395J	0.000531	<0.000170	0.000193J	0.000982
Fluoride	*1.89*	*mg/L*	<0.375	0.844J	<0.375	<0.375	<0.375
Lead	*0.0036*	*mg/L*	0.000905	0.000338J	0.00155	<0.000260	<0.000260
Lithium	*0.0427*	*mg/L*	0.0253	0.0337	**0.0501**	**0.0633**	0.0340
Mercury	*0.000200*	*mg/L*	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110
Molybdenum	*0.0356*	*mg/L*	0.0245	0.00414	0.00767	0.00173J	<0.00130
Radium 226+228	*3.17*	*pCi/L*	1.28	1.15	1.08U	2.05	1.10
Selenium	*0.0146*	*mg/L*	0.00994	0.00209J	0.00158J	<0.00140	<0.00140
Thallium	*0.00100*	*mg/L*	<0.000570	0.000638J	<0.000570	<0.000570	<0.000570

Bold and underlined concentration indicates an SSI over background.

* Indicates the lower bound of the range is the lower prediction limit (LPL). The upper bound is the upper prediction limit (UPL).

J – Value is less than the Reporting Limit but above the Method Detection Limit, therefore value is an approximation.

U – Parameter was analyzed for but not detected above limiting criteria (such as, but not limited to minimum detectable concentration; total uncertainty; reporting limit) as defined in the analytical laboratory data package.

Table D-2. Summary of Evaluation for SSLs (April 2024)

	Well ID:		NC2MW-2	NC2MW-3	NC2MW-6	NC2MW-7	NC2MW-8
Constituent	*GWPS[1]*	*Unit*	*Lower Confidence Levels – Appendix IV (Assessment Monitoring) Constituents*				
Antimony	*0.006*	*mg/L*	0.002964	0.00069	0.00100	0.00069	0.00100
Arsenic	*0.0411 [2]*	*mg/L*	0.0009036	0.001652	0.0008362	**0.04288**	0.00874
Barium	*2.0*	*mg/L*	0.09346	0.06416	0.1165	0.554	0.5006
Beryllium	*0.004*	*mg/L*	0.00027	0.00027	0.00027	0.00027	0.00027
Cadmium	*0.005*	*mg/L*	0.0001168	0.000072	0.00006393	0.000051	0.000051
Chromium	*0.1*	*mg/L*	0.0011	0.0011	0.001533	0.0011	0.0011
Cobalt	*0.006*	*mg/L*	0.000214	0.0007061	0.000239	0.0002257	0.001655
Fluoride	*4.0*	*mg/L*	0.2451	0.6565	0.2217	0.244	0.2452
Lead	*0.015*	*mg/L*	0.0006365	0.000327	0.000485	0.00021	0.0002734
Lithium	*0.0427 [2]*	*mg/L*	0.02518	0.02108	0.02923	**0.05911**	0.03394
Mercury	*0.002*	*mg/L*	0.00011	0.00011	0.00011	0.00011	0.00011
Molybdenum	*0.1*	*mg/L*	0.02469	0.003158	0.009289	0.001572	0.001477
Radium 226+228	*5.0*	*pCi/L*	1.019	0.7105	0.6325	0.8716	1.005
Selenium	*0.05*	*mg/L*	0.002651	0.001103	0.001093	0.00096	0.0009548
Thallium	*0.002*	*mg/L*	0.00026	0.00026	0.00026	0.00026	0.00026

Bold and underlined concentration indicates an SSL over the GWPS.
[1] GWPS is established as the Environmental Protection Agency's (EPA) Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2), unless otherwise specified.
[2] GWPS is established as the UPL when the background level is higher than the EPA MCL.
[3] Arsenic has been shown to be naturally occurring and highly variable, and is therefore not considered a SSL under the ASD approved by NDEE on May 5, 2020.

Table D-3. Summary of Ongoing and Newly Identified SSLs (April 2024)

				Most Recent Result			Consecutive Compliance Dates		
Well	*Constituent*	*Unit*	*(Spring 2024)*	*Upper Confidence Levels*	*GWPS[1]*	*Initial Exceedance*	*1st Occurrence*	*Most Recent*	*Duration*
NC2MW-7	Lithium[2]	mg/L	**0.0633**	**0.06367**	0.0500	4/2020	N/A	N/A	N/A

Bold and underlined concentration indicate value exceeds the GWPS.
[1] GWPS is established as the Environmental Protection Agency's (EPA) Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2), unless otherwise specified.
[2] The Upper Prediction Limit for lithium has been set at 0.0500 mg/L which is above the GWPS specified in 40 CFR §257.95(h)(2), therefore, the Site GWPS is set to 0.0500 mg/L.

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Technical Memorandum

Date:	Wednesday, November 27, 2024
To:	Omaha Public Power District (OPPD)
From:	HDR Engineering, Inc.
Subject:	Summary of Statistical Analysis and Evaluation for SSLs Nebraska City Station NC2 Ash Disposal Area NDEE Title 132 & Federal CCR Groundwater Monitoring Network

Omaha Public Power District operates a two-unit (Unit 1 and Unit 2) fossil fuel-fired generating plant at the Nebraska City Station, herein referenced as “Station” or “Site”. The Station is located southeast of Nebraska City, Nebraska. The Station has two existing coal combustion residuals (CCR) landfills for fossil fuel combustion ash disposal known as the NC1 Ash Disposal Area and the NC2 Ash Disposal Area. Both NC1 and NC2 Ash Disposal Areas are subject to the United States Environmental Protection Agency’s final CCR rule promulgated under U.S. Code of Federal Regulations (CFR), Title 40, Part 257 and Nebraska Department of Environment and Energy’s (NDEE’s) Title 132 regulations for fossil fuel combustion ash disposal areas. This memorandum provides a discussion and evaluation of the NC2 Ash Disposal Area. The NC2 Ash Disposal Area is a CCR landfill permitted under the Title 132 regulations for 40.7 acres. Cell 1 was constructed in 2008/2009. The NC2 Ash Disposal Area Cells 2 and 3 were completed in January 2018. Cells 1 through 3 were constructed with a composite liner and leachate collection system.

Groundwater sampling was completed as part of an assessment monitoring program for the NC2 Ash Disposal Area, as specified in 40 CFR §257.95(d) and Title 132 Chapter 7 Section 005.06. The statistical analysis of groundwater data was performed in accordance with the methods described in the *Groundwater Monitoring Statistical Methods Certification*, amended December 2021, and the facility’s most recent Groundwater Sampling and Analysis Plan (dated January 2024; revised March 2024) as permitted under Title 132. The background ranges should be evaluated every two years, in accordance with Chapter 21 of the EPA’s Statistical Analysis of Groundwater Monitoring Data – Unified Guidance (EPA, 2009). The background threshold values (BTVs) were last updated as part of the April 2024 sampling event and will be reevaluated following the spring 2026 sampling event. The current BTVs were calculated with data obtained during monitoring events performed between March 2016 and April 2024.

Downgradient sampling results from the fall 2024 assessment monitoring were used to evaluate for statistically significant increases (SSIs) over background and statistically significant levels (SSLs) over the groundwater protection standards (GWPS). The calculated BTVs and the evaluation for SSIs for the Appendix III (herein referred to as “detection monitoring”) constituents and Appendix IV (herein referred to as “assessment monitoring”) constituents are provided in **Table D-1**. The calculated lower confidence levels and the evaluation for SSLs over the GWPS for the assessment monitoring constituents are provided in **Table D-2**. The calculated upper confidence levels and the evaluation for SSLs over the GWPS for the corrective action monitoring constituents are provided in **Table D-3**.

Table D-1. Summary of Evaluations for SSIs over Background (October 2024)

		Well ID:	NC2MW-2	NC2MW-3	NC2MW-6	NC2MW-7	NC2MW-8
Constituent	*BTV (UPL):*	*Unit*	*Assessment Monitoring Results*				
Appendix III (Detection Monitoring) Constituents							
Boron	*4.63*	*mg/L*	0.826	0.458	2.49	0.213	0.113
Calcium	*223*	*mg/L*	**289**	173	158	121	134
Chloride	*36.6*	*mg/L*	21.5	7.54	12.8	11.1	11.3
Fluoride	*1.89*	*mg/L*	0.603J	1.44	1.44	<0.375	<0.375
pH	*6.33 – 7.87**	*SU*	6.62	6.76	6.98	7.06	7.09
Sulfate	*611*	*mg/L*	474	373	129	3.41J	18.3
TDS	*1,390*	*mg/L*	1170	1160	666	458	456
Appendix IV (Assessment Monitoring) Constituents							
Antimony	*0.002*	*mg/L*	**0.00349**	<0.00100	<0.00100	<0.00100	<0.00100
Arsenic	*0.0411*	*mg/L*	0.00111J	0.00270	0.000955J	**0.0512**	0.00343
Barium	*0.473*	*mg/L*	0.0769	0.0735	0.175	**0.580**	**0.564**
Beryllium	*0.001*	*mg/L*	<0.000330	<0.000330	<0.000330	<0.000330	<0.000330
Cadmium	*0.0005*	*mg/L*	0.000148J	<0.000100	<0.000100	0.000100	<0.000100
Chromium	*0.00500*	*mg/L*	<0.00120	<0.00110	<0.00120	<0.00120	<0.00120
Cobalt	*0.00236*	*mg/L*	0.000467J	0.00155	0.000186J	0.000172J	0.00137
Fluoride	*1.89*	*mg/L*	0.603J	1.44	1.44	<0.375	<0.375
Lead	*0.0036*	*mg/L*	0.000844	0.000524	0.00111	<0.000260	0.000268J
Lithium	*0.0427*	*mg/L*	**0.0430**	0.0258	**0.0524**	**0.0645**	0.0382
Mercury	*0.000200*	*mg/L*	<0.000110	<0.000110	<0.000110	<0.000110	<0.000110
Molybdenum	*0.0356*	*mg/L*	0.0266	0.00142J	0.00949	0.00202	0.00178J
Radium 226+228	*3.17*	*pCi/L*	1.64	0.842	1.07	1.26	1.29
Selenium	*0.0146*	*mg/L*	0.00168J	<0.00140	<0.00140	<0.00140	<0.00140
Thallium	*0.00100*	*mg/L*	**0.00165**	**0.00139**	0.000697J	0.000802J	0.000859J

Bold and underlined concentration indicates an SSI over background.

* Indicates the lower bound of the range is the lower prediction limit (LPL). The upper bound is the upper prediction limit (UPL).

J – Value is less than the Reporting Limit but above the Method Detection Limit, therefore value is an approximation.

U – Parameter was analyzed for but not detected above limiting criteria (such as, but not limited to minimum detectable concentration; total uncertainty; reporting limit) as defined in the analytical laboratory data package.

Table D-2. Summary of Evaluation for SSLs (October 2024)

	Well ID:		NC2MW-2	NC2MW-3	NC2MW-6	NC2MW-7	NC2MW-8
Constituent	*GWPS[1]*	*Unit*	*Lower Confidence Levels – Appendix IV (Assessment Monitoring) Constituents*				
Antimony	*0.006*	*mg/L*	0.00293	0.001	0.001	0.001	0.001
Arsenic	*0.0411 [2]*	*mg/L*	0.0008956	0.001778	0.000866	**0.04343**	0.007296
Barium	*2.0*	*mg/L*	0.0872	0.06655	0.1212	0.5535	0.4994
Beryllium	*0.004*	*mg/L*	0.00033	0.00033	0.00033	0.00033	0.00033
Cadmium	*0.005*	*mg/L*	0.0001262	0.000072	0.00008	0.0001	0.000052
Chromium	*0.1*	*mg/L*	0.0012	0.0012	0.001314	0.0012	0.0012
Cobalt	*0.006*	*mg/L*	0.0002618	0.000641	0.0002516	0.0002131	0.001577
Fluoride	*4.0*	*mg/L*	0.3277	0.7639	0.329	0.375	0.375
Lead	*0.015*	*mg/L*	0.0006398	0.0003275	0.0005919	0.00026	0.0002601
Lithium	*0.0427 [2]*	*mg/L*	0.02557	0.0208	0.03124	**0.05912**	0.03463
Mercury	*0.002*	*mg/L*	0.00011	0.00011	0.00011	0.00011	0.00011
Molybdenum	*0.1*	*mg/L*	0.02659	0.002609	0.008759	0.001737	0.001618
Radium 226+228	*5.0*	*pCi/L*	0.9356	0.7312	0.5831	0.8258	0.8537
Selenium	*0.05*	*mg/L*	0.003034	0.0014	0.0014	0.0014	0.0014
Thallium	*0.002*	*mg/L*	0.00057	0.00026	0.00057	0.00057	0.00057

Bold and underlined concentration indicates an SSL over the GWPS.
[1] GWPS is established as the Environmental Protection Agency's (EPA) Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2), unless otherwise specified.
[2] GWPS is established as the UPL when the background level is higher than the EPA MCL.
[3] Arsenic has been shown to be naturally occurring and highly variable, and is therefore not considered an SSL under the ASD approved by NDEE on May 5, 2020.

Table D-3. Summary of Ongoing and Newly Identified SSLs (October 2024)

			Most Recent Result				Consecutive Compliance Dates		
Well	*Constituent*	*Unit*	*(Fall 2024)*	*Upper Confidence Levels*	*GWPS[1]*	*Initial Exceedance*	*1st Occurrence*	*Most Recent*	*Duration*
NC2MW-7	Lithium[2]	mg/L	**0.0645**	**0.06375**	0.0427	4/2020	N/A	N/A	N/A

Bold and underlined concentration indicate value exceeds the GWPS.
[1] GWPS is established as the Environmental Protection Agency's (EPA) Maximum Contaminant Level (MCL) or the GWPS specified in 40 CFR §257.95(h)(2), unless otherwise specified.
[2] The Upper Prediction Limit for lithium has been set at 0.0427 mg/L which is above the GWPS specified in 40 CFR §257.95(h)(2), therefore, the Site GWPS is set to 0.0427 mg/L.