Dynegy Midwest Generation, LLC
1500 Eastport Plaza Dr.
Collinsville, IL 62234

January 30, 2025

Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Re: Hennepin Ash Pond No. 2 and No. 4 (IEPA ID: W1550100002-04, 07) 2024 Annual Consolidated Report

Dear Mr. LeCrone:

In accordance with 35 IAC § 845.550, Dynegy Midwest Generation, LLC (DMG) is submitting the annual consolidated report for the Hennepin Ash Pond No. 2 and No. 4 (IEPA ID: W1550100002-04, 07), as enclosed.

Sincerely,

Dianna Tickner
Sr. Director Decommissioning & Demolition

Enclosures

Annual Consolidated Report
Dynegy Midwest Generation, LLC
Hennepin Power Plant
Ash Pond No. 2 and No. 4; IEPA **ID W1550100002-04, 07**

In accordance with 35 IAC § 845.550, Dynegy Midwest Generation, LLC (DMG) has prepared the annual consolidated report. The report is provided in two sections as follows:

Section 1
1) Annual CCR fugitive dust control report (Section 845.500(c))

Section 2
2) Annual inspection report (Section 845.540(b)), including:

A) Annual hazard potential classification certification

B) Annual structural stability assessment certification

C) Annual safety factor assessment certification

D) Inflow design flood control system plan certification

Section 3
3) Annual Groundwater Monitoring and Corrective Action Report (Section 845.610(e))

Section 1

Annual CCR Fugitive Dust Control Report

Annual CCR Fugitive Dust Control Report

for

Hennepin Power Plant

Prepared for:

Luminant

Dynegy Midwest Generation, LLC

Hennepin Power Plant
13498 East 800th Street
Hennepin, IL 61327

November 2024

Hennepin Power Plant
ANNUAL CCR FUGITIVE DUST CONTROL REPORT

Reporting Year: 4th Quarter 2023 through 3rd Quarter 2024

Completed by: _____ Plant Environmental Supervisor

Name Title

This Annual CCR Fugitive Dust Control Report has been prepared for the Hennepin Power Plant in accordance with 40 CFR 257.80(c) and 35 I.A.C. 845.500. Section 1 provides a description of the actions taken to control CCR fugitive dust at the facility during the reporting year, including a summary of any corrective measures taken. Section 2 provides a record of citizen complaints received concerning CCR fugitive dust at the facility during the reporting year, including a summary of any corrective measures taken.

Section 1 Actions Taken to Control CCR Fugitive Dust

In accordance with the Hennepin Power Plant CCR Fugitive Dust Control Plan (Plan), the following measures were used to control CCR fugitive dust from becoming airborne at the facility during the reporting year:

CCR Activity	Actions Taken to Control CCR Fugitive Dust
Management of CCR in the facility's CCR units	CCR to be emplaced in the landfill will be conditioned before emplacement.
	Water dry CCR material from periodic cleanout / maintenance of CCR handling or CCR dust control systems as it is added into the CCR surface impoundments, as necessary.
	Wet management of CCR bottom ash in CCR surface impoundments.
	Water areas of exposed CCR in CCR units, as necessary.
	Naturally occurring grass vegetation in areas of exposed CCR in CCR surface impoundments.
	Apply chemical dust suppressant on areas of exposed CCR in CCR units, as necessary.
	Wet sluice CCR fly ash and CCR bottom ash to CCR surface impoundments.

CCR Activity	Actions Taken to Control CCR Fugitive Dust
Handling of CCR at the facility	Pneumatically convey dry CCR fly ash and FGD ash to storage silos in an enclosed system.
	CCR to be emplaced in the landfill will be conditioned before emplacement.
	Load CCR transport trucks from the CCR fly ash silos in a partially enclosed area.
	Load CCR transport trucks from the CCR fly ash silos using vented spouts.
	Load FGD ash transport trucks from the FGD ash silo using a pug mill or vented spouts, as necessary.
	Perform housekeeping, as necessary, in the fly ash loading area.
	Operate fly ash handling system in accordance with good operating practices.
	Maintain and repair as necessary dust controls on the fly ash handling system.
Transportation of CCR at the facility	CCR to be emplaced in the landfill is conditioned before emplacement.
	Limit the speed of vehicles to no more than 15 mph on facility roads.
	Sweep or rinse off the outside of the trucks transporting CCR, as necessary.
	Remove CCR, as necessary, deposited on facility road surfaces during transport.

Based on a review of the Plan and inspections associated with CCR fugitive dust control performed in the reporting year, the control measures identified in the Plan as implemented at the facility effectively minimized CCR from becoming airborne at the facility. No revisions or additions to control measures identified in the Plan were needed in this report. The Hennepin Power Plant ceased to operate and ceased to be a generating unit effective November 1, 2019.

No material changes occurred in the reporting year in site conditions potentially resulting in CCR fugitive dust becoming airborne at the facility that warrant an amendment of the Plan. The plan was amended to reflect administrative changes and adjustments to site condition controls.

Section 2 Record of Citizen Complaints

No citizen complaints were received regarding CCR fugitive dust at Hennepin Power Plant in the reporting year.

Section 2

Annual inspection report (Section 845.540(b)), including:

A) Annual hazard potential classification certification, if applicable (Section 845.440)

B) Annual structural stability assessment certification, if applicable (Section 845.450)

C) Annual safety factor assessment certification, if applicable (Section 845.460)

D) Inflow design flood control system plan certification (Section 845.510(c))

ANNUAL INSPECTION BY A QUALIFIED PROFESSIONAL ENGINEER 35 IAC § 845.540
(b)(1) The CCR surface impoundment must be inspected on an annual basis by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR surface impoundment is consistent with recognized and generally accepted engineering standards. The inspection must, at a minimum, include: A) A review of available information regarding the status and condition of the CCR surface impoundment, including files available in the operating record (e.g., CCR surface impoundment design and construction information required by Sections 845.220(a)(1) and 845.230(d)(2)(A), previous structural stability assessments required under Section 845.450, the results of inspections by a qualified person, and results of previous annual inspections); B) A visual inspection of the CCR surface impoundment to identify signs of distress or malfunction of the CCR surface impoundment and appurtenant structures; C) A visual inspection of any hydraulic structures underlying the base of the CCR surface impoundment or passing through the dike of the CCR surface impoundment for structural integrity and continued safe and reliable operation; D) The annual hazard potential classification certification, if applicable (see Section 845.440); E) The annual structural stability assessment certification, if applicable (see Section 845.450); F) The annual safety factor assessment certification, if applicable (see Section 845.460); and G) The inflow design flood control system plan certification (see Section 845.510(c)).

SITE INFORMATION	
Site Name / Address / Date of Inspection	Hennepin Power Station Putnam County, Illinois 62327 10/1/2024
Operator Name / Address	Luminant Generation Company LLC 6555 Sierra Drive, Irving, TX 75039
CCR unit	Ash Pond 2

INSPECTION REPORT 35 IAC § 845.540	
(b)(1)(D) The annual hazard potential classification certification, if applicable (see Section 845.440).	Based on a review of the CCR unit's annual hazard potential classification, the unit is classified as a Class II CCR surface impoundment.
(b)(2)(A) Any changes in geometry of the structure since the previous annual inspection.	As part of the capping and closure of the West Ash Pond and West Polishing Pond, Ash Pond 2 was regraded to promote positive stormwater drainage. As a result of this regrading Ash Pond 2 will not impound water.
(b)(2)(B) The location and type of existing instrumentation and the maximum recorded readings of each instrument since the previous annual inspection	See the attached.
b)(2)(C) The approximate minimum, maximum, and present depth and elevation of the impounded water and CCR since the previous annual inspection;	See the attached.
b)(2)(D) The storage capacity of the impounding structure at the time of the inspection	Due to regrading, the impoundment will no longer impound any additional water or material.
(b)(2)(E) The approximate volume of the impounded water and CCR contained in the unit at the time of the inspection.	Approximately 435 acre-feet of capped CCR.
(b)(2)(F) Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit	Based on a review of the CCR unit's records and visual observation during the on-site inspection, there was no appearance of an actual or potential structural weakness of the CCR unit, nor an existing condition that is disrupting or would disrupt the operation and safety of the unit.

INSPECTION REPORT 35 IAC § 845.540	
(b)(2)(G) Any other changes that may have affected the stability or operation of the impounding structure since the previous annual inspection.	Based on a review of the CCR unit's records and visual observation during the on-site inspection, no other changes which may have affected the stability or operation of the CCR unit have taken place since the previous annual inspection.
(b)(1)(G) The inflow design flood control system plan certification (see Section 845.510(c))	As part of the capping and closure of the West Ash Pond and West Polishing Pond, Ash Pond 2 was regraded to promote positive stormwater drainage. As a result of this regrading Ash Pond 2 will not impound water.

35 IAC § 845.540 - Annual inspection by a qualified professional engineer.

I, James Knutelski, P.E., certify under penalty of law that the information submitted in this report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Illinois. The information submitted, is to the best of my knowledge and belief, true, accurate and complete. Based on the annual inspection, the design, construction, operation, and maintenance of the CCR Unit is consistent with recognized and generally accepted good engineering standards. Based on a review of the records for the CCR unit and a visual inspection of the unit to document no material changes to the unit, the hazard potential classification was conducted in accordance with the requirements of Section 845.440, the structural stability assessment was conducted in accordance with the requirements of Section 845.450, the safety factor assessment was conducted in accordance with the requirements of Section 845.460, and the inflow design flood control system plan assessment was conducted in accordance with the requirements of Section 845.510.

James Knutelski, PE
Illinois PE No. 062-054206, Expires: 11/30/2025
Date: 12/13/2024

Site Name: Hennepin Power Station

CCR Unit: Ash Pond 2

35 IAC § 845.540 (b)(2)(B)		
Instrument ID #	Type	Maximum recorded reading since previous annual inspection (ft)
P004	Piezometer	445.28'
P005	Piezometer	445.1'

35 IAC § 845.540 (b)(2)(C)						
	Approximate Depth / Elevation					
Since previous inspection:	Elevation (ft)			Depth (ft)		
	Minimum	Present	Maximum	Minimum	Present	Maximum
Impounded Water					0	
CCR	494		497	43		46

Section 3

Annual Groundwater Monitoring and Corrective Action Report (Section 845.610(e))

Prepared for
Dynegy Midwest Generation, LLC

Date
January 31, 2025

Project No.
1940106781-008

2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

IEPA ID NO. W1550100002-04 AND W1550100002-07

RAMBOLL Bright ideas. Sustainable change.

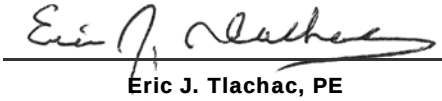
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT ASH POND NO. 2 AND ASH POND NO. 4

Project name	**Hennepin Power Plant Ash Pond No. 2 and Ash Pond No. 4**
Project no.	**1940106781-008**
Recipient	**Dynegy Midwest Generation, LLC**
Document type	**Annual Groundwater Monitoring and Corrective Action Report**
Version	**FINAL**
Date	**January 31, 2025**
Prepared by	**Jeff R. Kampman**
Checked by	**Lauren D. Cook**
Approved by	**Eric J. Tlachac, PE**
Description	**Annual Report Required by 35 I.A.C. § 845**

Ramboll
234 W. Florida Street
Fifth Floor
Milwaukee, WI 53204
USA

T 414-837-3607
F 414-837-3608
https://ramboll.com

Jeff R. Kampman
Senior Project Scientist



Eric J. Tlachac, PE
Senior Project Manager

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FIGURES

ATTACHMENTS

ACRONYMS AND ABBREVIATIONS

35 I.A.C.	Title 35 of the Illinois Administrative Code
AP2/AP4	Ash Pond No. 2 and Ash Pond No. 4
CCA	compliance commitment agreement
CCR	coal combustion residuals
CMA	assessment of corrective measures
DMG	Dynegy Midwest Generation, LLC
E003	Quarter 4, 2023 sampling event
E004	Quarter 1, 2024 sampling event
E005	Quarter 2, 2024 sampling event
E006	Quarter 3, 2024 sampling event
E007	Quarter 4, 2024 sampling event
GWPS	groundwater protection standard
HPP	Hennepin Power Plant
ID	identification
IEPA	Illinois Environmental Protection Agency
NID	National Inventory of Dams
No.	number
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SI	surface impoundment
SSI	statistically significant increase

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 35 of the Illinois Administrative Code (35 I.A.C.) § 845.610(e) (*Annual Groundwater Monitoring and Corrective Action Report*) for Ash Pond No. 2 and Ash Pond No. 4 (AP2/AP4) located at Hennepin Power Plant (HPP) near Hennepin, Illinois. AP2/AP4 is recognized by coal combustion residuals (CCR) unit identification (ID) number (No.) 802/805, Illinois Environmental Protection Agency (IEPA) ID Nos. W1550100002-04 and W1550100002-07, and National Inventory of Dams (NID) No. IL50663.

AP2/AP4 was closed in accordance with the Closure and Post Closure Care Plan submitted to the IEPA in February 2018. The IEPA approved the Closure and Post-Closure Care Plan on March 5, 2020.

As required by 35 I.A.C. § 845, an operating permit application for AP2/AP4 was submitted by Dynegy Midwest Generation, LLC (DMG) to the IEPA by October 31, 2021 in accordance with the requirements specified in 35 I.A.C. § 845.230(d) and is pending approval. DMG entered into a compliance commitment agreement (CCA) with the IEPA on December 28, 2022. As specified in the CCA, groundwater monitoring in accordance with the proposed groundwater monitoring plan and sampling methodologies provided in the operating permit application for AP2/AP4 commenced in the second quarter of 2023 and quarterly groundwater sampling was conducted in 2024 in accordance with 35 I.A.C. § 845.650. All available groundwater monitoring data collected in 2024 is summarized in **Table 1** (field parameters and analytical results) and **Attachment A** (groundwater elevation data). After AP2/AP4 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit.

In accordance with 35 I.A.C. § 845.610(b)(3)(C) and the statistical analysis plan submitted with the operating permit application (Appendix A of the Groundwater Monitoring Plan [Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021]), constituent concentrations observed at compliance monitoring wells were evaluated for compliance with the groundwater protection standards (GWPSs) described in 35 I.A.C. § 845.600 to determine exceedances[1] of the GWPS (**Table 2**). No GWPS exceedances were determined in 2024, therefore an assessment of corrective measures (CMA) has not been initiated for AP2/AP4.

In accordance with 35 I.A.C. § 845.610(b)(3)(B), constituent concentrations observed at compliance monitoring wells were also evaluated quarterly for exceedances over statistical background levels (**Attachment B**).

[1] Throughout this document, “exceedance” or “exceedances” is intended to refer only to potential exceedances of proposed applicable background statistics or GWPSs as described in the proposed groundwater monitoring program, which was submitted to the IEPA on October 25, 2021 as part of DMG’s operating permit application for the HPP AP2/AP4. That operating permit application, including the proposed groundwater monitoring program, remains under review by the IEPA and, therefore, DMG has not identified any actual exceedances.

1. INTRODUCTION

This report has been prepared by Ramboll on behalf of DMG, to provide the information required by 35 I.A.C. § 845.610(e) for AP2/AP4 located at HPP near Hennepin, Illinois. The owner or operator of a CCR surface impoundment (SI) must prepare and submit to IEPA by January 31st of each year an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year as part of the Annual Consolidated Report required by 35 I.A.C. § 845.550. The Annual Groundwater Monitoring and Corrective Action Report shall document the status of the groundwater monitoring and corrective action plan for the CCR SI (**Section 2**), summarize key actions completed, including the status of permit applications and Agency approvals (**Section 3**), describe any problems encountered and actions to resolve the problems (**Section 4**), and project key activities for the upcoming year (**Section 5**).

At a minimum, the annual report must contain the following information, to the extent available:

A. A map, aerial image, or diagram showing the CCR surface impoundment (SI) and all background (or upgradient) and [downgradient] compliance monitoring wells, including the well identification numbers, that are part of the groundwater monitoring program for the CCR SI (**Figure 1**), and a visual delineation of any exceedances of the [groundwater protection standard] GWPS (**Figure 2**).

B. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken (**Section 3**, paragraph 1).

C. A potentiometric surface map for each groundwater elevation sampling event required by 35 I.A.C. § 845.650(b)(2) (**Figures 3 through 14**).

D. In addition to all the monitoring data obtained under 35 I.A.C. §§ 845.600-680, a summary including the number of groundwater samples that were collected for analysis for each background and [downgradient] compliance well, and the dates the samples were collected (**Section 3.1** and **Table A**).

E. A narrative discussion of any statistically significant increases (SSIs) over background levels for the constituents listed in 35 I.A.C. § 845.600 (**Section 3.3** and **Attachment B**).

F. Other information required to be included in the annual report as specified in 35 I.A.C. §§ 845.600-680.

A section at the beginning of the annual report must provide an overview of the current status of the groundwater monitoring program and corrective action plan for the CCR SI (see **Executive Summary**). At a minimum, the summary must:

A. Specify whether groundwater monitoring data shows an SSI over background concentrations for one or more constituents listed in 35 I.A.C. § 845.600.

B. Identify those constituents having an SSI over background concentrations and the names of the monitoring wells associated with the SSI(s).

C. Specify whether there have been any exceedances of the GWPS for one or more constituents listed in 35 I.A.C. § 845.600.

D. Identify those constituents with exceedances of the GWPS in 35 I.A.C. § 845.600 and the names of the monitoring wells associated with the exceedance.

E. Provide the date when the assessment of corrective measures was initiated for the CCR SI.

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

G. Specify whether a remedy was selected under 35 I.A.C. § 845.670 during the current annual reporting period, and if so, the date of remedy selection.

H. Specify whether remedial activities were initiated or are ongoing under 35 I.A.C. § 845.780 during the current annual reporting period.

This report provides the required information for HPP AP2/AP4 for calendar year 2024.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

AP2/AP4 was closed in accordance with the Closure and Post Closure Care Plan submitted to the IEPA in February 2018. The IEPA approved the Closure and Post-Closure Care Plan on March 5, 2020.

An operating permit application for AP2/AP4 was submitted by DMG to the IEPA by October 31, 2021 in accordance with the requirements specified in 35 I.A.C. § 845.230(d) and is pending approval. DMG entered into a CCA with the IEPA on December 28, 2022. As specified in the CCA, groundwater monitoring in accordance with the proposed groundwater monitoring plan and sampling methodologies provided in the operating permit application for AP2/AP4 commenced in the second quarter of 2023. After AP2/AP4 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. As specified in the CCA, groundwater sampling requirements that apply to the CCR SI under other existing permit programs will become void upon issuance of an approved operating permit pursuant to 35 I.A.C § 845. In addition, and in accordance with the CCA, groundwater monitoring performed under Section 1.5 of the approved Closure and Post-Closure Care Plan ceased with commencement of quarterly groundwater monitoring under 35 I.A.C § 845.

As noted in the **Executive Summary** and **Section 3.2**, no GWPS exceedances were determined for AP2/AP4 in 2024.

3. KEY ACTIONS COMPLETED IN 2024

The proposed 35 I.A.C. § 845 monitoring system is presented in **Figure 1**. No wells were installed or decommissioned in 2024.

Monthly groundwater level elevations were collected in 2024 as required by 35 I.A.C. § 845.650(b)(2). **Attachment A** summarizes the groundwater elevation data collected in 2024. Potentiometric surfaces for January through December 2024 are included in **Figures 3 through 14**.

A summary of the samples collected in 2024 is included in **Section 3.1**. Narrative discussions of exceedances of GWPSs and background are included in **Section 3.2** and **Section 3.3**, respectively. Statistical procedures used to evaluate groundwater results are provided in Appendix A of the Groundwater Monitoring Plan provided in the operating permit application (Ramboll, 2021).

3.1 Sample and Analysis Summary

One groundwater sample was collected from each background and compliance well during each quarterly monitoring event in 2024. All samples were collected and analyzed in accordance with the Groundwater Monitoring Plan provided in the operating permit application (Ramboll, 2021). A summary of the samples collected from background and compliance monitoring wells in 2024 is included in **Table A** on the following page. **Table 1** is a summary of the field parameters and analytical results from the 2024 sampling events. Laboratory analytical reports and field data sheets are attached to the quarterly Groundwater Monitoring Data and Detected Exceedances Reports for Quarters 1 through 4 (Ramboll, 2024a; Ramboll, 2024b; Ramboll, 2024c; Ramboll, 2025); therefore, these reports are not attached to this annual report to avoid reproduction of lengthy data transmittals that have been previously provided in hardcopy.

Table A. 35 I.A.C. § 845 Monitoring Program Summary for 2024

Event ID	Sampling Dates [1, 2, 3]	Analytical Data Receipt Date	Exceedance Determination Date	ASD Completion Date
E003	November 16 - 17, and 20, 2023	January 4, 2024	March 4, 2024 [4]	NA
E004	January 25 - 26, 2024	February 22, 2024	April 22, 2024	NA
E005	April 15 - 16, 2024	May 20, 2024	July 19, 2024	NA
E006	July 15 - 16, 2024	September 6, 2024	November 5, 2024	NA
E007	October 8 - 10, 2024	November 11, 2024	January 10, 2025	NA

Notes:

ASD: Alternative Source Demonstration

NA: not applicable

[1] All samples were analyzed for the parameters listed in 35 I.A.C. § 845.600, calcium, and turbidity.

[2] The following background wells were sampled for each event: 07, 08, and 08D

[3] The following compliance wells were sampled for each event: 03R, 18D, 18S, and 45S

[4] Statistical determinations were completed in 2024 and are included in the 2024 Annual Groundwater Monitoring and Corrective Action Report for completeness. Analytical data from 2023 sampling events used in statistical determinations are included in the Quarter 4, 2023 Groundwater Monitoring Data and Detected Exceedances Report.

3.2 Exceedances of GWPS

In accordance with 35 I.A.C. § 845.610(b)(3)(C), the constituent concentrations observed at compliance monitoring wells identified as Statistical Results in **Table 2** were compared with the GWPSs described in 35 I.A.C. § 845.600 to determine exceedances of the GWPS. No exceedances of the GWPSs were determined as shown on **Figure 2**.

3.3 Exceedances of Background

In accordance with 35 I.A.C. § 845.610(b)(3)(B), constituent concentrations observed at compliance monitoring wells were also evaluated quarterly for exceedances over statistical background levels for the constituents listed in 35 I.A.C. § 845.600. **Attachment B** shows the constituent concentrations compared to statistical background levels.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

Quarterly groundwater monitoring was completed in 2024. Groundwater samples were collected and analyzed in accordance with the Groundwater Monitoring Plan provided in the operating permit application (Ramboll, 2021) and all data were accepted. After AP2/AP4 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit.

5. KEY ACTIVITIES PLANNED FOR 2025

The following key activities are planned for 2025:

- Continuation of groundwater monitoring in accordance with the proposed groundwater monitoring plan and sampling methodologies provided in the operating permit application for AP2/AP4. After AP2/AP4 has been issued an approved operating permit, groundwater monitoring shall be conducted in accordance with that operating permit. Groundwater monitoring will include:
  - Monthly groundwater elevations
  - Quarterly groundwater sampling
- Complete evaluation of analytical data from the compliance wells to determine whether exceedances above GWPSs have occurred.
- If a GWPS exceedance is identified, potential alternative sources (*i.e.,* a source other than the CCR unit caused the GWPS exceedance or that the exceedance resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated.
  - If an alternative source is identified to be the cause of the GWPS exceedance, a written demonstration will be completed within 60 days of determination and included in the 2024 Annual Groundwater Monitoring and Corrective Action Report.
  - If an alternative source(s) is not identified to be the cause of the GWPS exceedance, the applicable requirements of 35 I.A.C. § 845.660 will be met.

6. REFERENCES

Illinois Administrative Code, Title 35, Subtitle G, Chapter I, Subchapter J, *Part 845: Standards for The Disposal Of Coal Combustion Residuals In Surface Impoundments*, effective April 21, 2021.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2021. *Addendum to the Groundwater Monitoring Plan.* Hennepin Power Plant, Ash Pond No. 2 and Ash Pond No. 4, Hennepin, Illinois. Dynegy Midwest Generation, LLC. October 25, 2021.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2024a. 35 I.A.C. § 845.610(B)(3)(D) Groundwater Monitoring Data and Detected Exceedances, 2024 Quarter 1, Ash Ponds No. 2 and No. 4, Hennepin Power Plant, Hennepin, Illinois. April 22, 2024. https://www.luminant.com/documents/ccr/il-ccr/Hennepin/2024/2024-Hen%20AP2%202024%201st%20qtr%2035%20IAC%20845%20GW%20report-Hennepin-Ash%20Pond%20No%202%20and%20No%204-W1550100002%E2%80%9004-07.pdf

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2024b. 35 I.A.C. § 845.610(B)(3)(D) Groundwater Monitoring Data and Detected Exceedances, 2024 Quarter 2, Ash Ponds No. 2 and No. 4, Hennepin Power Plant, Hennepin, Illinois. July 19, 2024. https://www.luminant.com/documents/ccr/il-ccr/Hennepin/2024/2024-Hen%20AP2%202024%202nd%20qtr%2035%20IAC%20845%20GW%20report-Hennepin-Ash%20Pond%20No%202%20and%20No%204-W1550100002%E2%80%9004-07.pdf

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2024c. 35 I.A.C. § 845.610(B)(3)(D) Groundwater Monitoring Data and Detected Exceedances, 2024 Quarter 3, Ash Ponds No. 2 and No. 4, Hennepin Power Plant, Hennepin, Illinois. November 5, 2024. https://www.luminant.com/documents/ccr/il-ccr/Hennepin/2024/2024-Hen%20AP2%202024%203rd%20qtr%2035%20IAC%20845%20GW%20report-Hennepin-East%20Ash%20Pond%20No.%202-W1550100002%E2%80%9004.pdf

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2025. 35 I.A.C. § 845.610(B)(3)(D) Groundwater Monitoring Data and Detected Exceedances, 2024 Quarter 4, Ash Ponds No. 2 and No. 4, Hennepin Power Plant, Hennepin, Illinois. January 10, 2025. https://www.luminant.com/documents/ccr/il-ccr/Hennepin/2024/2024-Hen%20AP2%202024%204th%20qtr%2035%20IAC%20845%20GW%20report-Hennepin-Ash%20Pond%20No%202%20and%20No%204-W1550100002%E2%80%9004-07.pdf

TABLES

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
07	Background	E004	01/26/2024	Antimony, total	0.0013 U	mg/L
07	Background	E004	01/26/2024	Arsenic, total	0.00023 U	mg/L
07	Background	E004	01/26/2024	Barium, total	0.100	mg/L
07	Background	E004	01/26/2024	Beryllium, total	0.00053 U	mg/L
07	Background	E004	01/26/2024	Boron, total	0.120	mg/L
07	Background	E004	01/26/2024	Cadmium, total	0.00017 U	mg/L
07	Background	E004	01/26/2024	Calcium, total	120	mg/L
07	Background	E004	01/26/2024	Chloride, total	56.0	mg/L
07	Background	E004	01/26/2024	Chromium, total	0.0011 U	mg/L
07	Background	E004	01/26/2024	Cobalt, total	0.00750	mg/L
07	Background	E004	01/26/2024	Dissolved Oxygen	4.30	mg/L
07	Background	E004	01/26/2024	Fluoride, total	0.120	mg/L
07	Background	E004	01/26/2024	Lead, total	0.00019 U	mg/L
07	Background	E004	01/26/2024	Lithium, total	0.00520	mg/L
07	Background	E004	01/26/2024	Mercury, total	0.000079 U	mg/L
07	Background	E004	01/26/2024	Molybdenum, total	0.0025 U	mg/L
07	Background	E004	01/26/2024	Oxidation Reduction Potential	143	mV
07	Background	E004	01/26/2024	pH (field)	7.0	SU
07	Background	E004	01/26/2024	Radium 226 + Radium 228, total	0.947	pCi/L
07	Background	E004	01/26/2024	Selenium, total	0.00098 U	mg/L
07	Background	E004	01/26/2024	Specific Conductance @ 25C (field)	1,026	micromhos/cm
07	Background	E004	01/26/2024	Sulfate, total	59.0	mg/L
07	Background	E004	01/26/2024	Temperature	10.0	degrees C
07	Background	E004	01/26/2024	Thallium, total	0.00057 U	mg/L
07	Background	E004	01/26/2024	Total Dissolved Solids	650	mg/L
07	Background	E004	01/26/2024	Turbidity, field	5.90	NTU
08	Background	E004	01/26/2024	Antimony, total	0.0013 U	mg/L
08	Background	E004	01/26/2024	Arsenic, total	0.00023 U	mg/L
08	Background	E004	01/26/2024	Barium, total	0.120	mg/L
08	Background	E004	01/26/2024	Beryllium, total	0.00053 U	mg/L
08	Background	E004	01/26/2024	Boron, total	0.150	mg/L
08	Background	E004	01/26/2024	Cadmium, total	0.00049 J	mg/L
08	Background	E004	01/26/2024	Calcium, total	200	mg/L
08	Background	E004	01/26/2024	Chloride, total	250	mg/L
08	Background	E004	01/26/2024	Chromium, total	0.0011 U	mg/L
08	Background	E004	01/26/2024	Cobalt, total	0.00430	mg/L
08	Background	E004	01/26/2024	Dissolved Oxygen	0.530	mg/L
08	Background	E004	01/26/2024	Fluoride, total	0.083 J	mg/L
08	Background	E004	01/26/2024	Lead, total	0.00031 J	mg/L
08	Background	E004	01/26/2024	Lithium, total	0.0130	mg/L
08	Background	E004	01/26/2024	Mercury, total	0.000079 U	mg/L
08	Background	E004	01/26/2024	Molybdenum, total	0.0025 U	mg/L
08	Background	E004	01/26/2024	Oxidation Reduction Potential	101	mV
08	Background	E004	01/26/2024	pH (field)	6.8	SU
08	Background	E004	01/26/2024	Radium 226 + Radium 228, total	1.41	pCi/L
08	Background	E004	01/26/2024	Selenium, total	0.00098 U	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
08	Background	E004	01/26/2024	Specific Conductance @ 25C (field)	1,839	micromhos/cm
08	Background	E004	01/26/2024	Sulfate, total	120	mg/L
08	Background	E004	01/26/2024	Temperature	12.3	degrees C
08	Background	E004	01/26/2024	Thallium, total	0.00057 U	mg/L
08	Background	E004	01/26/2024	Total Dissolved Solids	1,200	mg/L
08	Background	E004	01/26/2024	Turbidity, field	0.970	NTU
08D	Background	E004	01/25/2024	Antimony, total	0.0013 U	mg/L
08D	Background	E004	01/25/2024	Arsenic, total	0.00033 J	mg/L
08D	Background	E004	01/25/2024	Barium, total	0.140	mg/L
08D	Background	E004	01/25/2024	Beryllium, total	0.00053 U	mg/L
08D	Background	E004	01/25/2024	Boron, total	0.120	mg/L
08D	Background	E004	01/25/2024	Cadmium, total	0.000930	mg/L
08D	Background	E004	01/25/2024	Calcium, total	220	mg/L
08D	Background	E004	01/25/2024	Chloride, total	330	mg/L
08D	Background	E004	01/25/2024	Chromium, total	0.0011 U	mg/L
08D	Background	E004	01/25/2024	Cobalt, total	0.00460	mg/L
08D	Background	E004	01/25/2024	Dissolved Oxygen	0.500	mg/L
08D	Background	E004	01/25/2024	Fluoride, total	0.09 J	mg/L
08D	Background	E004	01/25/2024	Lead, total	0.000710	mg/L
08D	Background	E004	01/25/2024	Lithium, total	0.0140	mg/L
08D	Background	E004	01/25/2024	Mercury, total	0.000079 U	mg/L
08D	Background	E004	01/25/2024	Molybdenum, total	0.0025 U	mg/L
08D	Background	E004	01/25/2024	Oxidation Reduction Potential	86.7	mV
08D	Background	E004	01/25/2024	pH (field)	6.7	SU
08D	Background	E004	01/25/2024	Radium 226 + Radium 228, total	0.389	pCi/L
08D	Background	E004	01/25/2024	Selenium, total	0.00098 U	mg/L
08D	Background	E004	01/25/2024	Specific Conductance @ 25C (field)	2,389	micromhos/cm
08D	Background	E004	01/25/2024	Sulfate, total	170	mg/L
08D	Background	E004	01/25/2024	Temperature	12.5	degrees C
08D	Background	E004	01/25/2024	Thallium, total	0.00057 U	mg/L
08D	Background	E004	01/25/2024	Total Dissolved Solids	1,500	mg/L
08D	Background	E004	01/25/2024	Turbidity, field	4.40	NTU
03R	Compliance	E004	01/25/2024	Antimony, total	0.0013 U	mg/L
03R	Compliance	E004	01/25/2024	Arsenic, total	0.00055 J	mg/L
03R	Compliance	E004	01/25/2024	Barium, total	0.0720	mg/L
03R	Compliance	E004	01/25/2024	Beryllium, total	0.00053 U	mg/L
03R	Compliance	E004	01/25/2024	Boron, total	0.580	mg/L
03R	Compliance	E004	01/25/2024	Cadmium, total	0.00026 J	mg/L
03R	Compliance	E004	01/25/2024	Calcium, total	96.0	mg/L
03R	Compliance	E004	01/25/2024	Chloride, total	79.0	mg/L
03R	Compliance	E004	01/25/2024	Chromium, total	0.0011 U	mg/L
03R	Compliance	E004	01/25/2024	Cobalt, total	0.00056 J	mg/L
03R	Compliance	E004	01/25/2024	Dissolved Oxygen	1.28	mg/L
03R	Compliance	E004	01/25/2024	Fluoride, total	0.250	mg/L
03R	Compliance	E004	01/25/2024	Lead, total	0.00024 J	mg/L
03R	Compliance	E004	01/25/2024	Lithium, total	0.0180	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
03R	Compliance	E004	01/25/2024	Mercury, total	0.000079 U	mg/L
03R	Compliance	E004	01/25/2024	Molybdenum, total	0.0890	mg/L
03R	Compliance	E004	01/25/2024	Oxidation Reduction Potential	46.6	mV
03R	Compliance	E004	01/25/2024	pH (field)	7.3	SU
03R	Compliance	E004	01/25/2024	Radium 226 + Radium 228, total	0.319	pCi/L
03R	Compliance	E004	01/25/2024	Selenium, total	0.0021 J	mg/L
03R	Compliance	E004	01/25/2024	Specific Conductance @ 25C (field)	877	micromhos/cm
03R	Compliance	E004	01/25/2024	Sulfate, total	73.0	mg/L
03R	Compliance	E004	01/25/2024	Temperature	15.0	degrees C
03R	Compliance	E004	01/25/2024	Thallium, total	0.00057 U	mg/L
03R	Compliance	E004	01/25/2024	Total Dissolved Solids	570	mg/L
03R	Compliance	E004	01/25/2024	Turbidity, field	8.98	NTU
18S	Compliance	E004	01/25/2024	Antimony, total	0.0013 U	mg/L
18S	Compliance	E004	01/25/2024	Arsenic, total	0.00078 J	mg/L
18S	Compliance	E004	01/25/2024	Barium, total	0.0600	mg/L
18S	Compliance	E004	01/25/2024	Beryllium, total	0.00053 U	mg/L
18S	Compliance	E004	01/25/2024	Boron, total	1.70	mg/L
18S	Compliance	E004	01/25/2024	Cadmium, total	0.00017 U	mg/L
18S	Compliance	E004	01/25/2024	Calcium, total	99.0	mg/L
18S	Compliance	E004	01/25/2024	Chloride, total	74.0	mg/L
18S	Compliance	E004	01/25/2024	Chromium, total	0.0011 U	mg/L
18S	Compliance	E004	01/25/2024	Cobalt, total	0.0004 U	mg/L
18S	Compliance	E004	01/25/2024	Dissolved Oxygen	1.17	mg/L
18S	Compliance	E004	01/25/2024	Fluoride, total	0.170	mg/L
18S	Compliance	E004	01/25/2024	Lead, total	0.00019 U	mg/L
18S	Compliance	E004	01/25/2024	Lithium, total	0.0440	mg/L
18S	Compliance	E004	01/25/2024	Mercury, total	0.000079 U	mg/L
18S	Compliance	E004	01/25/2024	Molybdenum, total	0.160	mg/L
18S	Compliance	E004	01/25/2024	Oxidation Reduction Potential	44.8	mV
18S	Compliance	E004	01/25/2024	pH (field)	7.5	SU
18S	Compliance	E004	01/25/2024	Radium 226 + Radium 228, total	0.761	pCi/L
18S	Compliance	E004	01/25/2024	Selenium, total	0.0140	mg/L
18S	Compliance	E004	01/25/2024	Specific Conductance @ 25C (field)	827	micromhos/cm
18S	Compliance	E004	01/25/2024	Sulfate, total	98.0	mg/L
18S	Compliance	E004	01/25/2024	Temperature	13.3	degrees C
18S	Compliance	E004	01/25/2024	Thallium, total	0.00057 U	mg/L
18S	Compliance	E004	01/25/2024	Total Dissolved Solids	580	mg/L
18S	Compliance	E004	01/25/2024	Turbidity, field	2.81	NTU
18D	Compliance	E004	01/25/2024	Antimony, total	0.0013 U	mg/L
18D	Compliance	E004	01/25/2024	Arsenic, total	0.00098 J	mg/L
18D	Compliance	E004	01/25/2024	Barium, total	0.0700	mg/L
18D	Compliance	E004	01/25/2024	Beryllium, total	0.00053 U	mg/L
18D	Compliance	E004	01/25/2024	Boron, total	1.20	mg/L
18D	Compliance	E004	01/25/2024	Cadmium, total	0.00036 J	mg/L
18D	Compliance	E004	01/25/2024	Calcium, total	99.0	mg/L
18D	Compliance	E004	01/25/2024	Chloride, total	73.0	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
18D	Compliance	E004	01/25/2024	Chromium, total	0.0013 J	mg/L
18D	Compliance	E004	01/25/2024	Cobalt, total	0.00180	mg/L
18D	Compliance	E004	01/25/2024	Dissolved Oxygen	0.950	mg/L
18D	Compliance	E004	01/25/2024	Fluoride, total	0.150	mg/L
18D	Compliance	E004	01/25/2024	Lead, total	0.000720	mg/L
18D	Compliance	E004	01/25/2024	Lithium, total	0.0240	mg/L
18D	Compliance	E004	01/25/2024	Mercury, total	0.000079 U	mg/L
18D	Compliance	E004	01/25/2024	Molybdenum, total	0.0340	mg/L
18D	Compliance	E004	01/25/2024	Oxidation Reduction Potential	-10.5	mV
18D	Compliance	E004	01/25/2024	pH (field)	7.3	SU
18D	Compliance	E004	01/25/2024	Radium 226 + Radium 228, total	0.886	pCi/L
18D	Compliance	E004	01/25/2024	Selenium, total	0.00098 U	mg/L
18D	Compliance	E004	01/25/2024	Specific Conductance @ 25C (field)	856	micromhos/cm
18D	Compliance	E004	01/25/2024	Sulfate, total	95.0	mg/L
18D	Compliance	E004	01/25/2024	Temperature	14.5	degrees C
18D	Compliance	E004	01/25/2024	Thallium, total	0.00057 U	mg/L
18D	Compliance	E004	01/25/2024	Total Dissolved Solids	590	mg/L
18D	Compliance	E004	01/25/2024	Turbidity, field	28.2	NTU
45S	Compliance	E004	01/25/2024	Antimony, total	0.0013 U	mg/L
45S	Compliance	E004	01/25/2024	Arsenic, total	0.00100	mg/L
45S	Compliance	E004	01/25/2024	Barium, total	0.0850	mg/L
45S	Compliance	E004	01/25/2024	Beryllium, total	0.00053 U	mg/L
45S	Compliance	E004	01/25/2024	Boron, total	0.310	mg/L
45S	Compliance	E004	01/25/2024	Cadmium, total	0.00100	mg/L
45S	Compliance	E004	01/25/2024	Calcium, total	99.0	mg/L
45S	Compliance	E004	01/25/2024	Chloride, total	88.0	mg/L
45S	Compliance	E004	01/25/2024	Chromium, total	0.0018 J	mg/L
45S	Compliance	E004	01/25/2024	Cobalt, total	0.00180	mg/L
45S	Compliance	E004	01/25/2024	Dissolved Oxygen	0.0100	mg/L
45S	Compliance	E004	01/25/2024	Fluoride, total	0.250	mg/L
45S	Compliance	E004	01/25/2024	Lead, total	0.00160	mg/L
45S	Compliance	E004	01/25/2024	Lithium, total	0.0120	mg/L
45S	Compliance	E004	01/25/2024	Mercury, total	0.000079 U	mg/L
45S	Compliance	E004	01/25/2024	Molybdenum, total	0.0520	mg/L
45S	Compliance	E004	01/25/2024	Oxidation Reduction Potential	-0.100	mV
45S	Compliance	E004	01/25/2024	pH (field)	7.2	SU
45S	Compliance	E004	01/25/2024	Radium 226 + Radium 228, total	0.821	pCi/L
45S	Compliance	E004	01/25/2024	Selenium, total	0.00098 U	mg/L
45S	Compliance	E004	01/25/2024	Specific Conductance @ 25C (field)	976	micromhos/cm
45S	Compliance	E004	01/25/2024	Sulfate, total	67.0	mg/L
45S	Compliance	E004	01/25/2024	Temperature	17.8	degrees C
45S	Compliance	E004	01/25/2024	Thallium, total	0.00057 U	mg/L
45S	Compliance	E004	01/25/2024	Total Dissolved Solids	610	mg/L
45S	Compliance	E004	01/25/2024	Turbidity, field	34.2	NTU

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
SU = Standard Units
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
07	Background	E005	04/16/2024	Antimony, total	0.0013 U	mg/L
07	Background	E005	04/16/2024	Arsenic, total	0.00023 U	mg/L
07	Background	E005	04/16/2024	Barium, total	0.0990	mg/L
07	Background	E005	04/16/2024	Beryllium, total	0.00053 U	mg/L
07	Background	E005	04/16/2024	Boron, total	0.0730 J+	mg/L
07	Background	E005	04/16/2024	Cadmium, total	0.00017 U	mg/L
07	Background	E005	04/16/2024	Calcium, total	120	mg/L
07	Background	E005	04/16/2024	Chloride, total	49.0	mg/L
07	Background	E005	04/16/2024	Chromium, total	0.0012 J	mg/L
07	Background	E005	04/16/2024	Cobalt, total	0.00680	mg/L
07	Background	E005	04/16/2024	Dissolved Oxygen	5.12	mg/L
07	Background	E005	04/16/2024	Fluoride, total	0.130	mg/L
07	Background	E005	04/16/2024	Lead, total	0.00019 U	mg/L
07	Background	E005	04/16/2024	Lithium, total	0.00800	mg/L
07	Background	E005	04/16/2024	Mercury, total	0.00019 U	mg/L
07	Background	E005	04/16/2024	Molybdenum, total	0.0025 U	mg/L
07	Background	E005	04/16/2024	Oxidation Reduction Potential	154	mV
07	Background	E005	04/16/2024	pH (field)	7.0	SU
07	Background	E005	04/16/2024	Radium 226 + Radium 228, total	1.3	pCi/L
07	Background	E005	04/16/2024	Selenium, total	0.00098 U	mg/L
07	Background	E005	04/16/2024	Specific Conductance @ 25C (field)	1,036	micromhos/cm
07	Background	E005	04/16/2024	Sulfate, total	60.0	mg/L
07	Background	E005	04/16/2024	Temperature	12.8	degrees C
07	Background	E005	04/16/2024	Thallium, total	0.00057 U	mg/L
07	Background	E005	04/16/2024	Total Dissolved Solids	560	mg/L
07	Background	E005	04/16/2024	Turbidity, field	2.24	NTU
08	Background	E005	04/16/2024	Antimony, total	0.0013 U	mg/L
08	Background	E005	04/16/2024	Arsenic, total	0.00023 U	mg/L
08	Background	E005	04/16/2024	Barium, total	0.120	mg/L
08	Background	E005	04/16/2024	Beryllium, total	0.00053 U	mg/L
08	Background	E005	04/16/2024	Boron, total	0.120 J+	mg/L
08	Background	E005	04/16/2024	Cadmium, total	0.000500	mg/L
08	Background	E005	04/16/2024	Calcium, total	170	mg/L
08	Background	E005	04/16/2024	Chloride, total	190	mg/L
08	Background	E005	04/16/2024	Chromium, total	0.0011 U	mg/L
08	Background	E005	04/16/2024	Cobalt, total	0.00330	mg/L
08	Background	E005	04/16/2024	Dissolved Oxygen	2.30	mg/L
08	Background	E005	04/16/2024	Fluoride, total	0.093 J	mg/L
08	Background	E005	04/16/2024	Lead, total	0.00048 J	mg/L
08	Background	E005	04/16/2024	Lithium, total	0.0160	mg/L
08	Background	E005	04/16/2024	Mercury, total	0.000076 U	mg/L
08	Background	E005	04/16/2024	Molybdenum, total	0.0025 U	mg/L
08	Background	E005	04/16/2024	Oxidation Reduction Potential	167	mV
08	Background	E005	04/16/2024	pH (field)	6.8	SU
08	Background	E005	04/16/2024	Radium 226 + Radium 228, total	1.35	pCi/L
08	Background	E005	04/16/2024	Selenium, total	0.00098 U	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
08	Background	E005	04/16/2024	Specific Conductance @ 25C (field)	1,879	micromhos/cm
08	Background	E005	04/16/2024	Sulfate, total	110	mg/L
08	Background	E005	04/16/2024	Temperature	14.6	degrees C
08	Background	E005	04/16/2024	Thallium, total	0.00057 U	mg/L
08	Background	E005	04/16/2024	Total Dissolved Solids	1,100	mg/L
08	Background	E005	04/16/2024	Turbidity, field	0.550	NTU
08D	Background	E005	04/16/2024	Antimony, total	0.0013 U	mg/L
08D	Background	E005	04/16/2024	Arsenic, total	0.00023 U	mg/L
08D	Background	E005	04/16/2024	Barium, total	0.120	mg/L
08D	Background	E005	04/16/2024	Beryllium, total	0.00053 U	mg/L
08D	Background	E005	04/16/2024	Boron, total	0.0990 J+	mg/L
08D	Background	E005	04/16/2024	Cadmium, total	0.00110	mg/L
08D	Background	E005	04/16/2024	Calcium, total	200	mg/L
08D	Background	E005	04/16/2024	Chloride, total	310	mg/L
08D	Background	E005	04/16/2024	Chromium, total	0.0011 U	mg/L
08D	Background	E005	04/16/2024	Cobalt, total	0.00680	mg/L
08D	Background	E005	04/16/2024	Dissolved Oxygen	1.08	mg/L
08D	Background	E005	04/16/2024	Fluoride, total	0.110	mg/L
08D	Background	E005	04/16/2024	Lead, total	0.000930	mg/L
08D	Background	E005	04/16/2024	Lithium, total	0.00940	mg/L
08D	Background	E005	04/16/2024	Mercury, total	0.000076 U	mg/L
08D	Background	E005	04/16/2024	Molybdenum, total	0.0025 U	mg/L
08D	Background	E005	04/16/2024	Oxidation Reduction Potential	154	mV
08D	Background	E005	04/16/2024	pH (field)	6.7	SU
08D	Background	E005	04/16/2024	Radium 226 + Radium 228, total	0.413	pCi/L
08D	Background	E005	04/16/2024	Selenium, total	0.00098 U	mg/L
08D	Background	E005	04/16/2024	Specific Conductance @ 25C (field)	3,232	micromhos/cm
08D	Background	E005	04/16/2024	Sulfate, total	190	mg/L
08D	Background	E005	04/16/2024	Temperature	13.8	degrees C
08D	Background	E005	04/16/2024	Thallium, total	0.00057 U	mg/L
08D	Background	E005	04/16/2024	Total Dissolved Solids	1,400	mg/L
08D	Background	E005	04/16/2024	Turbidity, field	3.49	NTU
03R	Compliance	E005	04/15/2024	Antimony, total	0.0013 U	mg/L
03R	Compliance	E005	04/15/2024	Arsenic, total	0.00031 J	mg/L
03R	Compliance	E005	04/15/2024	Barium, total	0.0640	mg/L
03R	Compliance	E005	04/15/2024	Beryllium, total	0.00053 U	mg/L
03R	Compliance	E005	04/15/2024	Boron, total	0.610 J+	mg/L
03R	Compliance	E005	04/15/2024	Cadmium, total	0.00018 J	mg/L
03R	Compliance	E005	04/15/2024	Calcium, total	99.0	mg/L
03R	Compliance	E005	04/15/2024	Chloride, total	79.0	mg/L
03R	Compliance	E005	04/15/2024	Chromium, total	0.0011 U	mg/L
03R	Compliance	E005	04/15/2024	Cobalt, total	0.0004 U	mg/L
03R	Compliance	E005	04/15/2024	Dissolved Oxygen	0.360	mg/L
03R	Compliance	E005	04/15/2024	Fluoride, total	0.270	mg/L
03R	Compliance	E005	04/15/2024	Lead, total	0.00019 U	mg/L
03R	Compliance	E005	04/15/2024	Lithium, total	0.0230	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
03R	Compliance	E005	04/15/2024	Mercury, total	0.000076 U	mg/L
03R	Compliance	E005	04/15/2024	Molybdenum, total	0.0840	mg/L
03R	Compliance	E005	04/15/2024	Oxidation Reduction Potential	89.7	mV
03R	Compliance	E005	04/15/2024	pH (field)	7.2	SU
03R	Compliance	E005	04/15/2024	Radium 226 + Radium 228, total	1.04	pCi/L
03R	Compliance	E005	04/15/2024	Selenium, total	0.00560	mg/L
03R	Compliance	E005	04/15/2024	Specific Conductance @ 25C (field)	1,007	micromhos/cm
03R	Compliance	E005	04/15/2024	Sulfate, total	77.0	mg/L
03R	Compliance	E005	04/15/2024	Temperature	17.9	degrees C
03R	Compliance	E005	04/15/2024	Thallium, total	0.00057 U	mg/L
03R	Compliance	E005	04/15/2024	Total Dissolved Solids	570	mg/L
03R	Compliance	E005	04/15/2024	Turbidity, field	2.69	NTU
18S	Compliance	E005	04/15/2024	Antimony, total	0.0013 U	mg/L
18S	Compliance	E005	04/15/2024	Arsenic, total	0.0005 J	mg/L
18S	Compliance	E005	04/15/2024	Barium, total	0.0680	mg/L
18S	Compliance	E005	04/15/2024	Beryllium, total	0.00053 U	mg/L
18S	Compliance	E005	04/15/2024	Boron, total	5.10	mg/L
18S	Compliance	E005	04/15/2024	Cadmium, total	0.00017 U	mg/L
18S	Compliance	E005	04/15/2024	Calcium, total	130	mg/L
18S	Compliance	E005	04/15/2024	Chloride, total	65.0	mg/L
18S	Compliance	E005	04/15/2024	Chromium, total	0.0013 J	mg/L
18S	Compliance	E005	04/15/2024	Cobalt, total	0.0004 U	mg/L
18S	Compliance	E005	04/15/2024	Dissolved Oxygen	1.73	mg/L
18S	Compliance	E005	04/15/2024	Fluoride, total	0.150	mg/L
18S	Compliance	E005	04/15/2024	Lead, total	0.0002 J	mg/L
18S	Compliance	E005	04/15/2024	Lithium, total	0.0730	mg/L
18S	Compliance	E005	04/15/2024	Mercury, total	0.000076 U	mg/L
18S	Compliance	E005	04/15/2024	Molybdenum, total	0.160	mg/L
18S	Compliance	E005	04/15/2024	Oxidation Reduction Potential	97.6	mV
18S	Compliance	E005	04/15/2024	pH (field)	7.3	SU
18S	Compliance	E005	04/15/2024	Radium 226 + Radium 228, total	0.693	pCi/L
18S	Compliance	E005	04/15/2024	Selenium, total	0.0480	mg/L
18S	Compliance	E005	04/15/2024	Specific Conductance @ 25C (field)	1,112	micromhos/cm
18S	Compliance	E005	04/15/2024	Sulfate, total	220	mg/L
18S	Compliance	E005	04/15/2024	Temperature	17.0	degrees C
18S	Compliance	E005	04/15/2024	Thallium, total	0.00057 U	mg/L
18S	Compliance	E005	04/15/2024	Total Dissolved Solids	710	mg/L
18S	Compliance	E005	04/15/2024	Turbidity, field	1.93	NTU
18D	Compliance	E005	04/15/2024	Antimony, total	0.0013 U	mg/L
18D	Compliance	E005	04/15/2024	Arsenic, total	0.00048 J	mg/L
18D	Compliance	E005	04/15/2024	Barium, total	0.0680	mg/L
18D	Compliance	E005	04/15/2024	Beryllium, total	0.00053 U	mg/L
18D	Compliance	E005	04/15/2024	Boron, total	1.10	mg/L
18D	Compliance	E005	04/15/2024	Cadmium, total	0.00041 J	mg/L
18D	Compliance	E005	04/15/2024	Calcium, total	96.0	mg/L
18D	Compliance	E005	04/15/2024	Chloride, total	72.0	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
18D	Compliance	E005	04/15/2024	Chromium, total	0.0011 U	mg/L
18D	Compliance	E005	04/15/2024	Cobalt, total	0.00150	mg/L
18D	Compliance	E005	04/15/2024	Dissolved Oxygen	0.930	mg/L
18D	Compliance	E005	04/15/2024	Fluoride, total	0.150	mg/L
18D	Compliance	E005	04/15/2024	Lead, total	0.000500	mg/L
18D	Compliance	E005	04/15/2024	Lithium, total	0.0300	mg/L
18D	Compliance	E005	04/15/2024	Mercury, total	0.000076 U	mg/L
18D	Compliance	E005	04/15/2024	Molybdenum, total	0.0330	mg/L
18D	Compliance	E005	04/15/2024	Oxidation Reduction Potential	90.8	mV
18D	Compliance	E005	04/15/2024	pH (field)	7.2	SU
18D	Compliance	E005	04/15/2024	Radium 226 + Radium 228, total	0.834	pCi/L
18D	Compliance	E005	04/15/2024	Selenium, total	0.00098 U	mg/L
18D	Compliance	E005	04/15/2024	Specific Conductance @ 25C (field)	973	micromhos/cm
18D	Compliance	E005	04/15/2024	Sulfate, total	90.0	mg/L
18D	Compliance	E005	04/15/2024	Temperature	17.6	degrees C
18D	Compliance	E005	04/15/2024	Thallium, total	0.00057 U	mg/L
18D	Compliance	E005	04/15/2024	Total Dissolved Solids	570	mg/L
18D	Compliance	E005	04/15/2024	Turbidity, field	8.98	NTU
45S	Compliance	E005	04/15/2024	Antimony, total	0.0013 U	mg/L
45S	Compliance	E005	04/15/2024	Arsenic, total	0.00037 J	mg/L
45S	Compliance	E005	04/15/2024	Barium, total	0.0850	mg/L
45S	Compliance	E005	04/15/2024	Beryllium, total	0.00053 U	mg/L
45S	Compliance	E005	04/15/2024	Boron, total	0.330 J+	mg/L
45S	Compliance	E005	04/15/2024	Cadmium, total	0.000980	mg/L
45S	Compliance	E005	04/15/2024	Calcium, total	100	mg/L
45S	Compliance	E005	04/15/2024	Chloride, total	91.0	mg/L
45S	Compliance	E005	04/15/2024	Chromium, total	0.0011 U	mg/L
45S	Compliance	E005	04/15/2024	Cobalt, total	0.00160	mg/L
45S	Compliance	E005	04/15/2024	Dissolved Oxygen	0	mg/L
45S	Compliance	E005	04/15/2024	Fluoride, total	0.260	mg/L
45S	Compliance	E005	04/15/2024	Lead, total	0.000520	mg/L
45S	Compliance	E005	04/15/2024	Lithium, total	0.0180	mg/L
45S	Compliance	E005	04/15/2024	Mercury, total	0.000076 U	mg/L
45S	Compliance	E005	04/15/2024	Molybdenum, total	0.0510	mg/L
45S	Compliance	E005	04/15/2024	Oxidation Reduction Potential	131	mV
45S	Compliance	E005	04/15/2024	pH (field)	7.1	SU
45S	Compliance	E005	04/15/2024	Radium 226 + Radium 228, total	0.351	pCi/L
45S	Compliance	E005	04/15/2024	Selenium, total	0.00098 U	mg/L
45S	Compliance	E005	04/15/2024	Specific Conductance @ 25C (field)	1,451	micromhos/cm
45S	Compliance	E005	04/15/2024	Sulfate, total	75.0	mg/L
45S	Compliance	E005	04/15/2024	Temperature	19.9	degrees C
45S	Compliance	E005	04/15/2024	Thallium, total	0.00057 U	mg/L
45S	Compliance	E005	04/15/2024	Total Dissolved Solids	530	mg/L
45S	Compliance	E005	04/15/2024	Turbidity, field	4.21	NTU

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
SU = Standard Units
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
07	Background	E006	07/15/2024	Antimony, total	0.0013 U	mg/L
07	Background	E006	07/15/2024	Arsenic, total	0.00023 U	mg/L
07	Background	E006	07/15/2024	Barium, total	0.170	mg/L
07	Background	E006	07/15/2024	Beryllium, total	0.00053 U	mg/L
07	Background	E006	07/15/2024	Boron, total	0.0930 J	mg/L
07	Background	E006	07/15/2024	Cadmium, total	0.00017 U	mg/L
07	Background	E006	07/15/2024	Calcium, total	170	mg/L
07	Background	E006	07/15/2024	Chloride, total	170	mg/L
07	Background	E006	07/15/2024	Chromium, total	0.0011 U	mg/L
07	Background	E006	07/15/2024	Cobalt, total	0.00230	mg/L
07	Background	E006	07/15/2024	Dissolved Oxygen	6.82	mg/L
07	Background	E006	07/15/2024	Fluoride, total	0.120	mg/L
07	Background	E006	07/15/2024	Lead, total	0.00019 U	mg/L
07	Background	E006	07/15/2024	Lithium, total	0.0130 J+	mg/L
07	Background	E006	07/15/2024	Mercury, total	0.000076 U	mg/L
07	Background	E006	07/15/2024	Molybdenum, total	0.0025 U	mg/L
07	Background	E006	07/15/2024	Oxidation Reduction Potential	192	mV
07	Background	E006	07/15/2024	pH (field)	6.7	SU
07	Background	E006	07/15/2024	Radium 226 + Radium 228, total	0.436	pCi/L
07	Background	E006	07/15/2024	Selenium, total	0.00098 U	mg/L
07	Background	E006	07/15/2024	Specific Conductance @ 25C (field)	1,662	micromhos/cm
07	Background	E006	07/15/2024	Sulfate, total	63.0	mg/L
07	Background	E006	07/15/2024	Temperature	16.4	degrees C
07	Background	E006	07/15/2024	Thallium, total	0.00057 U	mg/L
07	Background	E006	07/15/2024	Total Dissolved Solids	1,100	mg/L
07	Background	E006	07/15/2024	Turbidity, field	2.66	NTU
08	Background	E006	07/16/2024	Antimony, total	0.0013 U	mg/L
08	Background	E006	07/16/2024	Arsenic, total	0.00023 U	mg/L
08	Background	E006	07/16/2024	Barium, total	0.100	mg/L
08	Background	E006	07/16/2024	Beryllium, total	0.00053 U	mg/L
08	Background	E006	07/16/2024	Boron, total	0.0990 J+	mg/L
08	Background	E006	07/16/2024	Cadmium, total	0.0003 J	mg/L
08	Background	E006	07/16/2024	Calcium, total	180	mg/L
08	Background	E006	07/16/2024	Chloride, total	150	mg/L
08	Background	E006	07/16/2024	Chromium, total	0.0011 U	mg/L
08	Background	E006	07/16/2024	Cobalt, total	0.00120	mg/L
08	Background	E006	07/16/2024	Dissolved Oxygen	2.21	mg/L
08	Background	E006	07/16/2024	Fluoride, total	0.110	mg/L
08	Background	E006	07/16/2024	Lead, total	0.0005 UJ	mg/L
08	Background	E006	07/16/2024	Lithium, total	0.0110 J+	mg/L
08	Background	E006	07/16/2024	Mercury, total	0.000076 U	mg/L
08	Background	E006	07/16/2024	Molybdenum, total	0.0025 U	mg/L
08	Background	E006	07/16/2024	Oxidation Reduction Potential	189	mV
08	Background	E006	07/16/2024	pH (field)	6.7	SU
08	Background	E006	07/16/2024	Radium 226 + Radium 228, total	0.596	pCi/L
08	Background	E006	07/16/2024	Selenium, total	0.00098 U	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
08	Background	E006	07/16/2024	Specific Conductance @ 25C (field)	1,597	micromhos/cm
08	Background	E006	07/16/2024	Sulfate, total	110	mg/L
08	Background	E006	07/16/2024	Temperature	18.1	degrees C
08	Background	E006	07/16/2024	Thallium, total	0.00057 U	mg/L
08	Background	E006	07/16/2024	Total Dissolved Solids	870	mg/L
08	Background	E006	07/16/2024	Turbidity, field	1.78	NTU
08D	Background	E006	07/16/2024	Antimony, total	0.0013 U	mg/L
08D	Background	E006	07/16/2024	Arsenic, total	0.00023 U	mg/L
08D	Background	E006	07/16/2024	Barium, total	0.100	mg/L
08D	Background	E006	07/16/2024	Beryllium, total	0.00053 U	mg/L
08D	Background	E006	07/16/2024	Boron, total	0.100 J+	mg/L
08D	Background	E006	07/16/2024	Cadmium, total	0.000500	mg/L
08D	Background	E006	07/16/2024	Calcium, total	190	mg/L
08D	Background	E006	07/16/2024	Chloride, total	300	mg/L
08D	Background	E006	07/16/2024	Chromium, total	0.0011 U	mg/L
08D	Background	E006	07/16/2024	Cobalt, total	0.00310	mg/L
08D	Background	E006	07/16/2024	Dissolved Oxygen	0.280	mg/L
08D	Background	E006	07/16/2024	Fluoride, total	0.110	mg/L
08D	Background	E006	07/16/2024	Lead, total	0.0005 UJ	mg/L
08D	Background	E006	07/16/2024	Lithium, total	0.0160 J+	mg/L
08D	Background	E006	07/16/2024	Mercury, total	0.000076 U	mg/L
08D	Background	E006	07/16/2024	Molybdenum, total	0.0025 U	mg/L
08D	Background	E006	07/16/2024	Oxidation Reduction Potential	196	mV
08D	Background	E006	07/16/2024	pH (field)	6.7	SU
08D	Background	E006	07/16/2024	Radium 226 + Radium 228, total	0.418	pCi/L
08D	Background	E006	07/16/2024	Selenium, total	0.00098 U	mg/L
08D	Background	E006	07/16/2024	Specific Conductance @ 25C (field)	1,824	micromhos/cm
08D	Background	E006	07/16/2024	Sulfate, total	170	mg/L
08D	Background	E006	07/16/2024	Temperature	15.4	degrees C
08D	Background	E006	07/16/2024	Thallium, total	0.00057 U	mg/L
08D	Background	E006	07/16/2024	Total Dissolved Solids	1,300	mg/L
08D	Background	E006	07/16/2024	Turbidity, field	4.41	NTU
03R	Compliance	E006	07/16/2024	Antimony, total	0.0013 U	mg/L
03R	Compliance	E006	07/16/2024	Arsenic, total	0.00038 J	mg/L
03R	Compliance	E006	07/16/2024	Barium, total	0.0670	mg/L
03R	Compliance	E006	07/16/2024	Beryllium, total	0.00053 U	mg/L
03R	Compliance	E006	07/16/2024	Boron, total	0.710 J+	mg/L
03R	Compliance	E006	07/16/2024	Cadmium, total	0.00017 U	mg/L
03R	Compliance	E006	07/16/2024	Calcium, total	100	mg/L
03R	Compliance	E006	07/16/2024	Chloride, total	73.0	mg/L
03R	Compliance	E006	07/16/2024	Chromium, total	0.0011 U	mg/L
03R	Compliance	E006	07/16/2024	Cobalt, total	0.0004 U	mg/L
03R	Compliance	E006	07/16/2024	Dissolved Oxygen	0.200	mg/L
03R	Compliance	E006	07/16/2024	Fluoride, total	0.280	mg/L
03R	Compliance	E006	07/16/2024	Lead, total	0.00019 U	mg/L
03R	Compliance	E006	07/16/2024	Lithium, total	0.0200 J+	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
03R	Compliance	E006	07/16/2024	Mercury, total	0.000076 U	mg/L
03R	Compliance	E006	07/16/2024	Molybdenum, total	0.0850	mg/L
03R	Compliance	E006	07/16/2024	Oxidation Reduction Potential	81.0	mV
03R	Compliance	E006	07/16/2024	pH (field)	7.2	SU
03R	Compliance	E006	07/16/2024	Radium 226 + Radium 228, total	0.155	pCi/L
03R	Compliance	E006	07/16/2024	Selenium, total	0.0100	mg/L
03R	Compliance	E006	07/16/2024	Specific Conductance @ 25C (field)	792	micromhos/cm
03R	Compliance	E006	07/16/2024	Sulfate, total	98.0	mg/L
03R	Compliance	E006	07/16/2024	Temperature	18.2	degrees C
03R	Compliance	E006	07/16/2024	Thallium, total	0.00057 U	mg/L
03R	Compliance	E006	07/16/2024	Total Dissolved Solids	570	mg/L
03R	Compliance	E006	07/16/2024	Turbidity, field	4.88	NTU
18S	Compliance	E006	07/16/2024	Antimony, total	0.0013 U	mg/L
18S	Compliance	E006	07/16/2024	Arsenic, total	0.0005 J	mg/L
18S	Compliance	E006	07/16/2024	Barium, total	0.0610	mg/L
18S	Compliance	E006	07/16/2024	Beryllium, total	0.00053 U	mg/L
18S	Compliance	E006	07/16/2024	Boron, total	3.90	mg/L
18S	Compliance	E006	07/16/2024	Cadmium, total	0.00017 U	mg/L
18S	Compliance	E006	07/16/2024	Calcium, total	100	mg/L
18S	Compliance	E006	07/16/2024	Chloride, total	71.0	mg/L
18S	Compliance	E006	07/16/2024	Chromium, total	0.0011 U	mg/L
18S	Compliance	E006	07/16/2024	Cobalt, total	0.0004 U	mg/L
18S	Compliance	E006	07/16/2024	Dissolved Oxygen	0.210	mg/L
18S	Compliance	E006	07/16/2024	Fluoride, total	0.180	mg/L
18S	Compliance	E006	07/16/2024	Lead, total	0.00019 U	mg/L
18S	Compliance	E006	07/16/2024	Lithium, total	0.0550 J+	mg/L
18S	Compliance	E006	07/16/2024	Mercury, total	0.000076 U	mg/L
18S	Compliance	E006	07/16/2024	Molybdenum, total	0.150	mg/L
18S	Compliance	E006	07/16/2024	Oxidation Reduction Potential	147	mV
18S	Compliance	E006	07/16/2024	pH (field)	7.4	SU
18S	Compliance	E006	07/16/2024	Radium 226 + Radium 228, total	0.258	pCi/L
18S	Compliance	E006	07/16/2024	Selenium, total	0.0360	mg/L
18S	Compliance	E006	07/16/2024	Specific Conductance @ 25C (field)	811	micromhos/cm
18S	Compliance	E006	07/16/2024	Sulfate, total	180	mg/L
18S	Compliance	E006	07/16/2024	Temperature	17.9	degrees C
18S	Compliance	E006	07/16/2024	Thallium, total	0.00057 U	mg/L
18S	Compliance	E006	07/16/2024	Total Dissolved Solids	620	mg/L
18S	Compliance	E006	07/16/2024	Turbidity, field	4.50	NTU
18D	Compliance	E006	07/16/2024	Antimony, total	0.0013 U	mg/L
18D	Compliance	E006	07/16/2024	Arsenic, total	0.00035 J	mg/L
18D	Compliance	E006	07/16/2024	Barium, total	0.0650	mg/L
18D	Compliance	E006	07/16/2024	Beryllium, total	0.00053 U	mg/L
18D	Compliance	E006	07/16/2024	Boron, total	1.30	mg/L
18D	Compliance	E006	07/16/2024	Cadmium, total	0.00036 J	mg/L
18D	Compliance	E006	07/16/2024	Calcium, total	97.0	mg/L
18D	Compliance	E006	07/16/2024	Chloride, total	75.0	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
18D	Compliance	E006	07/16/2024	Chromium, total	0.0011 U	mg/L
18D	Compliance	E006	07/16/2024	Cobalt, total	0.00120	mg/L
18D	Compliance	E006	07/16/2024	Dissolved Oxygen	0.660	mg/L
18D	Compliance	E006	07/16/2024	Fluoride, total	0.160	mg/L
18D	Compliance	E006	07/16/2024	Lead, total	0.0005 UJ	mg/L
18D	Compliance	E006	07/16/2024	Lithium, total	0.0230 J+	mg/L
18D	Compliance	E006	07/16/2024	Mercury, total	0.000076 U	mg/L
18D	Compliance	E006	07/16/2024	Molybdenum, total	0.0310	mg/L
18D	Compliance	E006	07/16/2024	Oxidation Reduction Potential	159	mV
18D	Compliance	E006	07/16/2024	pH (field)	7.2	SU
18D	Compliance	E006	07/16/2024	Radium 226 + Radium 228, total	0.457	pCi/L
18D	Compliance	E006	07/16/2024	Selenium, total	0.0012 J	mg/L
18D	Compliance	E006	07/16/2024	Specific Conductance @ 25C (field)	785	micromhos/cm
18D	Compliance	E006	07/16/2024	Sulfate, total	100	mg/L
18D	Compliance	E006	07/16/2024	Temperature	18.5	degrees C
18D	Compliance	E006	07/16/2024	Thallium, total	0.00057 U	mg/L
18D	Compliance	E006	07/16/2024	Total Dissolved Solids	550	mg/L
18D	Compliance	E006	07/16/2024	Turbidity, field	8.88	NTU
45S	Compliance	E006	07/16/2024	Antimony, total	0.0013 U	mg/L
45S	Compliance	E006	07/16/2024	Arsenic, total	0.00027 J	mg/L
45S	Compliance	E006	07/16/2024	Barium, total	0.0870	mg/L
45S	Compliance	E006	07/16/2024	Beryllium, total	0.00053 U	mg/L
45S	Compliance	E006	07/16/2024	Boron, total	0.360	mg/L
45S	Compliance	E006	07/16/2024	Cadmium, total	0.00120	mg/L
45S	Compliance	E006	07/16/2024	Calcium, total	110	mg/L
45S	Compliance	E006	07/16/2024	Chloride, total	100	mg/L
45S	Compliance	E006	07/16/2024	Chromium, total	0.0011 U	mg/L
45S	Compliance	E006	07/16/2024	Cobalt, total	0.00240	mg/L
45S	Compliance	E006	07/16/2024	Dissolved Oxygen	0.170	mg/L
45S	Compliance	E006	07/16/2024	Fluoride, total	0.270	mg/L
45S	Compliance	E006	07/16/2024	Lead, total	0.0005 UJ	mg/L
45S	Compliance	E006	07/16/2024	Lithium, total	0.0130 J+	mg/L
45S	Compliance	E006	07/16/2024	Mercury, total	0.000076 U	mg/L
45S	Compliance	E006	07/16/2024	Molybdenum, total	0.0480	mg/L
45S	Compliance	E006	07/16/2024	Oxidation Reduction Potential	96.9	mV
45S	Compliance	E006	07/16/2024	pH (field)	7.1	SU
45S	Compliance	E006	07/16/2024	Radium 226 + Radium 228, total	0.375	pCi/L
45S	Compliance	E006	07/16/2024	Selenium, total	0.00098 U	mg/L
45S	Compliance	E006	07/16/2024	Specific Conductance @ 25C (field)	911	micromhos/cm
45S	Compliance	E006	07/16/2024	Sulfate, total	90.0	mg/L
45S	Compliance	E006	07/16/2024	Temperature	19.7	degrees C
45S	Compliance	E006	07/16/2024	Thallium, total	0.00057 U	mg/L
45S	Compliance	E006	07/16/2024	Total Dissolved Solids	600	mg/L
45S	Compliance	E006	07/16/2024	Turbidity, field	12.1	NTU

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
Missing Code (if applicable):
NR[1] = Select parameters were not analyzed.
NS[1] = This well has been, or will be, abandoned; therefore, a sample was not collected.
NS[2] = Well either needs or was undergoing maintenance, therefore, a sample was not collected.
NS[3] = A sample was not collected because the location was inaccessible.
NS[4] = The location could not be found, therefore a sample was not collected.
NS[5] = A sample was not collected because of damage to the well.
NS[6] = A sample was not collected because of pump issues.
NS[7] = A sample was not collected because the well was either dry or was purged dry and did not recover.
PM[1] = Select parameters were not analyzed as the well purged dry during sample collection and did not sufficiently recover to sample for all parameters.
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
SU = Standard Units
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.
UJ = The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
07	Background	E007	10/10/2024	Antimony, total	0.0013 U	mg/L
07	Background	E007	10/10/2024	Arsenic, total	0.00023 U	mg/L
07	Background	E007	10/10/2024	Barium, total	0.120	mg/L
07	Background	E007	10/10/2024	Beryllium, total	0.00053 U	mg/L
07	Background	E007	10/10/2024	Boron, total	0.0690	mg/L
07	Background	E007	10/10/2024	Cadmium, total	0.00017 U	mg/L
07	Background	E007	10/10/2024	Calcium, total	140	mg/L
07	Background	E007	10/10/2024	Chloride, total	54.0	mg/L
07	Background	E007	10/10/2024	Chromium, total	0.0011 U	mg/L
07	Background	E007	10/10/2024	Cobalt, total	0.00370	mg/L
07	Background	E007	10/10/2024	Dissolved Oxygen	5.60	mg/L
07	Background	E007	10/10/2024	Fluoride, total	0.110	mg/L
07	Background	E007	10/10/2024	Lead, total	0.00019 U	mg/L
07	Background	E007	10/10/2024	Lithium, total	0.00960	mg/L
07	Background	E007	10/10/2024	Mercury, total	0.000076 U	mg/L
07	Background	E007	10/10/2024	Molybdenum, total	0.0025 U	mg/L
07	Background	E007	10/10/2024	Oxidation Reduction Potential	113	mV
07	Background	E007	10/10/2024	pH (field)	6.8	SU
07	Background	E007	10/10/2024	Radium 226 + Radium 228, total	0.406	pCi/L
07	Background	E007	10/10/2024	Selenium, total	0.00098 U	mg/L
07	Background	E007	10/10/2024	Specific Conductance @ 25C (field)	1,144	micromhos/cm
07	Background	E007	10/10/2024	Sulfate, total	57.0	mg/L
07	Background	E007	10/10/2024	Temperature	11.5	degrees C
07	Background	E007	10/10/2024	Thallium, total	0.00057 U	mg/L
07	Background	E007	10/10/2024	Total Dissolved Solids	650	mg/L
07	Background	E007	10/10/2024	Turbidity, field	5.30	NTU
08	Background	E007	10/10/2024	Antimony, total	0.0013 U	mg/L
08	Background	E007	10/10/2024	Arsenic, total	0.00023 U	mg/L
08	Background	E007	10/10/2024	Barium, total	0.120	mg/L
08	Background	E007	10/10/2024	Beryllium, total	0.00053 U	mg/L
08	Background	E007	10/10/2024	Boron, total	0.110 J+	mg/L
08	Background	E007	10/10/2024	Cadmium, total	0.00041 J	mg/L
08	Background	E007	10/10/2024	Calcium, total	210	mg/L
08	Background	E007	10/10/2024	Chloride, total	240	mg/L
08	Background	E007	10/10/2024	Chromium, total	0.0011 U	mg/L
08	Background	E007	10/10/2024	Cobalt, total	0.00240	mg/L
08	Background	E007	10/10/2024	Dissolved Oxygen	1.89	mg/L
08	Background	E007	10/10/2024	Fluoride, total	0.086 J	mg/L
08	Background	E007	10/10/2024	Lead, total	0.00031 J	mg/L
08	Background	E007	10/10/2024	Lithium, total	0.0160	mg/L
08	Background	E007	10/10/2024	Mercury, total	0.000076 U	mg/L
08	Background	E007	10/10/2024	Molybdenum, total	0.0025 U	mg/L
08	Background	E007	10/10/2024	Oxidation Reduction Potential	146	mV
08	Background	E007	10/10/2024	pH (field)	6.5	SU
08	Background	E007	10/10/2024	Radium 226 + Radium 228, total	1.07	pCi/L
08	Background	E007	10/10/2024	Selenium, total	0.00098 U	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
08	Background	E007	10/10/2024	Specific Conductance @ 25C (field)	1,549	micromhos/cm
08	Background	E007	10/10/2024	Sulfate, total	100	mg/L
08	Background	E007	10/10/2024	Temperature	13.7	degrees C
08	Background	E007	10/10/2024	Thallium, total	0.00057 U	mg/L
08	Background	E007	10/10/2024	Total Dissolved Solids	1,100	mg/L
08	Background	E007	10/10/2024	Turbidity, field	9.91	NTU
08D	Background	E007	10/08/2024	Antimony, total	0.0013 U	mg/L
08D	Background	E007	10/08/2024	Arsenic, total	0.00023 U	mg/L
08D	Background	E007	10/08/2024	Barium, total	0.0930	mg/L
08D	Background	E007	10/08/2024	Beryllium, total	0.00053 U	mg/L
08D	Background	E007	10/08/2024	Boron, total	0.0930 J+	mg/L
08D	Background	E007	10/08/2024	Cadmium, total	0.00039 J	mg/L
08D	Background	E007	10/08/2024	Calcium, total	170	mg/L
08D	Background	E007	10/08/2024	Chloride, total	240	mg/L
08D	Background	E007	10/08/2024	Chromium, total	0.0011 U	mg/L
08D	Background	E007	10/08/2024	Cobalt, total	0.00200	mg/L
08D	Background	E007	10/08/2024	Dissolved Oxygen	1.58	mg/L
08D	Background	E007	10/08/2024	Fluoride, total	0.100	mg/L
08D	Background	E007	10/08/2024	Lead, total	0.00032 J	mg/L
08D	Background	E007	10/08/2024	Lithium, total	0.0140	mg/L
08D	Background	E007	10/08/2024	Mercury, total	0.000076 U	mg/L
08D	Background	E007	10/08/2024	Molybdenum, total	0.0025 U	mg/L
08D	Background	E007	10/08/2024	Oxidation Reduction Potential	124	mV
08D	Background	E007	10/08/2024	pH (field)	6.7	SU
08D	Background	E007	10/08/2024	Radium 226 + Radium 228, total	0.773	pCi/L
08D	Background	E007	10/08/2024	Selenium, total	0.00098 U	mg/L
08D	Background	E007	10/08/2024	Specific Conductance @ 25C (field)	1,675	micromhos/cm
08D	Background	E007	10/08/2024	Sulfate, total	120	mg/L
08D	Background	E007	10/08/2024	Temperature	13.1	degrees C
08D	Background	E007	10/08/2024	Thallium, total	0.00057 U	mg/L
08D	Background	E007	10/08/2024	Total Dissolved Solids	1,100	mg/L
08D	Background	E007	10/08/2024	Turbidity, field	6.33	NTU
03R	Compliance	E007	10/09/2024	Antimony, total	0.0013 U	mg/L
03R	Compliance	E007	10/09/2024	Arsenic, total	0.00031 J	mg/L
03R	Compliance	E007	10/09/2024	Barium, total	0.0540	mg/L
03R	Compliance	E007	10/09/2024	Beryllium, total	0.00053 U	mg/L
03R	Compliance	E007	10/09/2024	Boron, total	0.780	mg/L
03R	Compliance	E007	10/09/2024	Cadmium, total	0.00017 U	mg/L
03R	Compliance	E007	10/09/2024	Calcium, total	86.0	mg/L
03R	Compliance	E007	10/09/2024	Chloride, total	62.0	mg/L
03R	Compliance	E007	10/09/2024	Chromium, total	0.0011 U	mg/L
03R	Compliance	E007	10/09/2024	Cobalt, total	0.0004 U	mg/L
03R	Compliance	E007	10/09/2024	Dissolved Oxygen	1.45	mg/L
03R	Compliance	E007	10/09/2024	Fluoride, total	0.260	mg/L
03R	Compliance	E007	10/09/2024	Lead, total	0.00019 U	mg/L
03R	Compliance	E007	10/09/2024	Lithium, total	0.0190	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
03R	Compliance	E007	10/09/2024	Mercury, total	0.000076 U	mg/L
03R	Compliance	E007	10/09/2024	Molybdenum, total	0.0760	mg/L
03R	Compliance	E007	10/09/2024	Oxidation Reduction Potential	80.7	mV
03R	Compliance	E007	10/09/2024	pH (field)	7.1	SU
03R	Compliance	E007	10/09/2024	Radium 226 + Radium 228, total	0.434	pCi/L
03R	Compliance	E007	10/09/2024	Selenium, total	0.00480	mg/L
03R	Compliance	E007	10/09/2024	Specific Conductance @ 25C (field)	730	micromhos/cm
03R	Compliance	E007	10/09/2024	Sulfate, total	74.0	mg/L
03R	Compliance	E007	10/09/2024	Temperature	17.8	degrees C
03R	Compliance	E007	10/09/2024	Thallium, total	0.00057 U	mg/L
03R	Compliance	E007	10/09/2024	Total Dissolved Solids	490	mg/L
03R	Compliance	E007	10/09/2024	Turbidity, field	7.01	NTU
18S	Compliance	E007	10/08/2024	Antimony, total	0.0013 U	mg/L
18S	Compliance	E007	10/08/2024	Arsenic, total	0.0005 J	mg/L
18S	Compliance	E007	10/08/2024	Barium, total	0.0570	mg/L
18S	Compliance	E007	10/08/2024	Beryllium, total	0.00053 U	mg/L
18S	Compliance	E007	10/08/2024	Boron, total	2.60	mg/L
18S	Compliance	E007	10/08/2024	Cadmium, total	0.00017 U	mg/L
18S	Compliance	E007	10/08/2024	Calcium, total	97.0	mg/L
18S	Compliance	E007	10/08/2024	Chloride, total	62.0	mg/L
18S	Compliance	E007	10/08/2024	Chromium, total	0.0011 U	mg/L
18S	Compliance	E007	10/08/2024	Cobalt, total	0.0004 U	mg/L
18S	Compliance	E007	10/08/2024	Dissolved Oxygen	1.11	mg/L
18S	Compliance	E007	10/08/2024	Fluoride, total	0.180	mg/L
18S	Compliance	E007	10/08/2024	Lead, total	0.00019 U	mg/L
18S	Compliance	E007	10/08/2024	Lithium, total	0.0530	mg/L
18S	Compliance	E007	10/08/2024	Mercury, total	0.000076 U	mg/L
18S	Compliance	E007	10/08/2024	Molybdenum, total	0.150	mg/L
18S	Compliance	E007	10/08/2024	Oxidation Reduction Potential	83.9	mV
18S	Compliance	E007	10/08/2024	pH (field)	7.3	SU
18S	Compliance	E007	10/08/2024	Radium 226 + Radium 228, total	0.445	pCi/L
18S	Compliance	E007	10/08/2024	Selenium, total	0.0230	mg/L
18S	Compliance	E007	10/08/2024	Specific Conductance @ 25C (field)	769	micromhos/cm
18S	Compliance	E007	10/08/2024	Sulfate, total	130	mg/L
18S	Compliance	E007	10/08/2024	Temperature	18.4	degrees C
18S	Compliance	E007	10/08/2024	Thallium, total	0.00057 U	mg/L
18S	Compliance	E007	10/08/2024	Total Dissolved Solids	540	mg/L
18S	Compliance	E007	10/08/2024	Turbidity, field	7.22	NTU
18D	Compliance	E007	10/08/2024	Antimony, total	0.0013 U	mg/L
18D	Compliance	E007	10/08/2024	Arsenic, total	0.00054 J	mg/L
18D	Compliance	E007	10/08/2024	Barium, total	0.0640	mg/L
18D	Compliance	E007	10/08/2024	Beryllium, total	0.00053 U	mg/L
18D	Compliance	E007	10/08/2024	Boron, total	1.20	mg/L
18D	Compliance	E007	10/08/2024	Cadmium, total	0.00038 J	mg/L
18D	Compliance	E007	10/08/2024	Calcium, total	96.0	mg/L
18D	Compliance	E007	10/08/2024	Chloride, total	68.0	mg/L

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Event	Date	Parameter	Result	Unit
18D	Compliance	E007	10/08/2024	Chromium, total	0.0011 U	mg/L
18D	Compliance	E007	10/08/2024	Cobalt, total	0.00150	mg/L
18D	Compliance	E007	10/08/2024	Dissolved Oxygen	1.47	mg/L
18D	Compliance	E007	10/08/2024	Fluoride, total	0.140	mg/L
18D	Compliance	E007	10/08/2024	Lead, total	0.00033 J	mg/L
18D	Compliance	E007	10/08/2024	Lithium, total	0.0240	mg/L
18D	Compliance	E007	10/08/2024	Mercury, total	0.000076 U	mg/L
18D	Compliance	E007	10/08/2024	Molybdenum, total	0.0310	mg/L
18D	Compliance	E007	10/08/2024	Oxidation Reduction Potential	70.2	mV
18D	Compliance	E007	10/08/2024	pH (field)	7.1	SU
18D	Compliance	E007	10/08/2024	Radium 226 + Radium 228, total	1.43	pCi/L
18D	Compliance	E007	10/08/2024	Selenium, total	0.00098 U	mg/L
18D	Compliance	E007	10/08/2024	Specific Conductance @ 25C (field)	781	micromhos/cm
18D	Compliance	E007	10/08/2024	Sulfate, total	110	mg/L
18D	Compliance	E007	10/08/2024	Temperature	18.1	degrees C
18D	Compliance	E007	10/08/2024	Thallium, total	0.00057 U	mg/L
18D	Compliance	E007	10/08/2024	Total Dissolved Solids	500	mg/L
18D	Compliance	E007	10/08/2024	Turbidity, field	22.2	NTU
45S	Compliance	E007	10/09/2024	Antimony, total	0.0013 U	mg/L
45S	Compliance	E007	10/09/2024	Arsenic, total	0.00023 U	mg/L
45S	Compliance	E007	10/09/2024	Barium, total	0.0700	mg/L
45S	Compliance	E007	10/09/2024	Beryllium, total	0.00053 U	mg/L
45S	Compliance	E007	10/09/2024	Boron, total	0.320 J+	mg/L
45S	Compliance	E007	10/09/2024	Cadmium, total	0.000940	mg/L
45S	Compliance	E007	10/09/2024	Calcium, total	90.0	mg/L
45S	Compliance	E007	10/09/2024	Chloride, total	70.0	mg/L
45S	Compliance	E007	10/09/2024	Chromium, total	0.0011 U	mg/L
45S	Compliance	E007	10/09/2024	Cobalt, total	0.00150	mg/L
45S	Compliance	E007	10/09/2024	Dissolved Oxygen	1.39	mg/L
45S	Compliance	E007	10/09/2024	Fluoride, total	0.250	mg/L
45S	Compliance	E007	10/09/2024	Lead, total	0.00028 J	mg/L
45S	Compliance	E007	10/09/2024	Lithium, total	0.0120	mg/L
45S	Compliance	E007	10/09/2024	Mercury, total	0.000076 U	mg/L
45S	Compliance	E007	10/09/2024	Molybdenum, total	0.0460	mg/L
45S	Compliance	E007	10/09/2024	Oxidation Reduction Potential	62.7	mV
45S	Compliance	E007	10/09/2024	pH (field)	7.1	SU
45S	Compliance	E007	10/09/2024	Radium 226 + Radium 228, total	0.0985	pCi/L
45S	Compliance	E007	10/09/2024	Selenium, total	0.00098 U	mg/L
45S	Compliance	E007	10/09/2024	Specific Conductance @ 25C (field)	797	micromhos/cm
45S	Compliance	E007	10/09/2024	Sulfate, total	68.0	mg/L
45S	Compliance	E007	10/09/2024	Temperature	18.4	degrees C
45S	Compliance	E007	10/09/2024	Thallium, total	0.00057 U	mg/L
45S	Compliance	E007	10/09/2024	Total Dissolved Solids	510	mg/L
45S	Compliance	E007	10/09/2024	Turbidity, field	9.72	NTU

TABLE 1.
FIELD PARAMETERS AND ANALYTICAL RESULTS - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
C = Celsius
cm = centimeter
mg/L = milligrams per liter
mV = millivolts
NTU = Nephelometric Turbidity Units
pCi/L = picocuries per liter
Result Code (if applicable):

- NR[1] = Parameter not analyzed.
- NS[1] = Well has been, or will be, abandoned; therefore, a sample was not collected.
- NS[2] = Well either needs or was undergoing maintenance; therefore, a sample was not collected.
- NS[3] = The location was not accessible; therefore, a sample was not collected.
- NS[4] = The location could not be found; therefore, a sample was not collected.
- NS[5] = The location was damaged; therefore, a sample was not collected.
- NS[6] = Sampling pump could not yield a sample.
- NS[7] = Well was either dry or purged dry and did not recover sufficiently to yield adequate volume for a sample.
- NS[8] = A sample was not collected.
- PM[1] = Parameter not analyzed as the well purged dry during sample collection and did not sufficiently recover to yield adequate sample volume for analysis.

SU = Standard Units
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+ = The result is an estimated quantity, but the result may be biased high.
U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
03R	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.006	Standard	No Exceedance
03R	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	100	All ND - Last	0.001	0.010	Standard	No Exceedance
03R	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CI around mean	0.0622	2.0	Standard	No Exceedance
03R	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.004	Standard	No Exceedance
03R	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	0.447	2	Standard	No Exceedance
03R	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	93	CB around T-S line	0.000644	0.005	Standard	No Exceedance
03R	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	77.9	435	Background	No Exceedance
03R	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	26	92	CB around T-S line	0.0015	0.1	Standard	No Exceedance
03R	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	27	96	CI around median	0.001	0.0380	Background	No Exceedance
03R	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CI around median	0.27	4.0	Standard	No Exceedance
03R	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
03R	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	31	0	CI around mean	0.0236	0.04	Standard	No Exceedance
03R	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
03R	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0826	0.1	Standard	No Exceedance
03R	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	35	0	CI around median	7.2/7.3	6.5/9.0	Standard/Standard	No Exceedance
03R	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around median	0.28	5	Standard	No Exceedance
03R	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	28	7	CB around T-S line	0.00171	0.05	Standard	No Exceedance
03R	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	72.9	400	Standard	No Exceedance
03R	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.002	Standard	No Exceedance
03R	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	32	0	CI around mean	512	1,620	Background	No Exceedance
18S	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18S	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	97	CI around median	0.001	0.010	Standard	No Exceedance
18S	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.0502	2.0	Standard	No Exceedance
18S	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18S	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	0.935	2	Standard	No Exceedance
18S	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	77	CB around T-S line	0.00054	0.005	Standard	No Exceedance
18S	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	32	0	CB around linear reg	69.8	435	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18S	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	27	58	CI around median	0.0015	0.1	Standard	No Exceedance
18S	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	27	84	CI around median	0.001	0.0380	Background	No Exceedance
18S	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CB around T-S line	0.171	4.0	Standard	No Exceedance
18S	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
18S	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0351	0.04	Standard	No Exceedance
18S	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18S	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0871	0.1	Standard	No Exceedance
18S	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	35	0	CI around median	7.3/7.4	6.5/9.0	Standard/Standard	No Exceedance
18S	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around mean	0.344	5	Standard	No Exceedance
18S	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	28	3	CB around T-S line	0.000606	0.05	Standard	No Exceedance
18S	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	77.5	400	Standard	No Exceedance
18S	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18S	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	476	1,620	Background	No Exceedance
18D	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18D	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	97	CI around median	0.001	0.010	Standard	No Exceedance
18D	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around T-S line	0.0638	2.0	Standard	No Exceedance
18D	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18D	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	32	0	CB around linear reg	1.2	2	Standard	No Exceedance
18D	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	94	CB around T-S line	0.000891	0.005	Standard	No Exceedance
18D	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	32	0	CI around mean	75.9	435	Background	No Exceedance
18D	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	26	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
18D	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	28	3	CB around linear reg	0.000118	0.0380	Background	No Exceedance
18D	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CI around median	0.15	4.0	Standard	No Exceedance
18D	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	93	CI around median	0.001	0.0075	Standard	No Exceedance
18D	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0228	0.04	Standard	No Exceedance
18D	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18D	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	31	0	CI around median	0.0315	0.1	Standard	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18D	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	35	0	CI around median	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
18D	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around mean	0.544	5	Standard	No Exceedance
18D	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	27	94	CB around T-S line	0.001	0.05	Standard	No Exceedance
18D	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	32	0	CB around linear reg	87.2	400	Standard	No Exceedance
18D	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18D	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	468	1,620	Background	No Exceedance
45S	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.006	Standard	No Exceedance
45S	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	92	CI around median	0.001	0.010	Standard	No Exceedance
45S	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.0787	2.0	Standard	No Exceedance
45S	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.004	Standard	No Exceedance
45S	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	29	0	CB around linear reg	0.211	2	Standard	No Exceedance
45S	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	44	CB around linear reg	0.000569	0.005	Standard	No Exceedance
45S	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	29	0	CB around linear reg	86.1	435	Background	No Exceedance
45S	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	27	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
45S	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	28	14	CI around geomean	0.00139	0.0380	Background	No Exceedance
45S	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CB around T-S line	0.24	4.0	Standard	No Exceedance
45S	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	81	CI around median	0.001	0.0075	Standard	No Exceedance
45S	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.0106	0.04	Standard	No Exceedance
45S	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
45S	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.042	0.1	Standard	No Exceedance
45S	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	29	0	CI around mean	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
45S	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around geomean	0.527	5	Standard	No Exceedance
45S	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	27	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
45S	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	29	0	CI around median	70	400	Standard	No Exceedance
45S	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.002	Standard	No Exceedance
45S	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	29	0	CI around mean	526	1,620	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
Compliance Result:

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

HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

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

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

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

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

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

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

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

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
03R	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.006	Standard	No Exceedance
03R	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	100	All ND - Last	0.001	0.010	Standard	No Exceedance
03R	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CI around geomean	0.0621	2.0	Standard	No Exceedance
03R	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.004	Standard	No Exceedance
03R	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	0.42	2	Standard	No Exceedance
03R	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	93	CB around T-S line	0.000641	0.005	Standard	No Exceedance
03R	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	77.5	435	Background	No Exceedance
03R	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	27	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
03R	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	28	96	CI around median	0.001	0.0380	Background	No Exceedance
03R	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CI around median	0.27	4.0	Standard	No Exceedance
03R	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
03R	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	32	0	CI around mean	0.0235	0.04	Standard	No Exceedance
03R	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
03R	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	0.0778	0.1	Standard	No Exceedance
03R	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	36	0	CI around median	7.2/7.3	6.5/9.0	Standard/Standard	No Exceedance
03R	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around median	0.28	5	Standard	No Exceedance
03R	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	29	7	CI around mean	0.00459	0.05	Standard	No Exceedance
03R	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	72.1	400	Standard	No Exceedance
03R	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.002	Standard	No Exceedance
03R	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	33	0	CI around mean	513	1,620	Background	No Exceedance
18S	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18S	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	97	CI around median	0.001	0.010	Standard	No Exceedance
18S	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.051	2.0	Standard	No Exceedance
18S	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18S	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	0.75	2	Standard	No Exceedance
18S	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	78	CB around T-S line	0.000583	0.005	Standard	No Exceedance
18S	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	33	0	CB around linear reg	68.9	435	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18S	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	28	59	CI around median	0.0015	0.1	Standard	No Exceedance
18S	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	28	84	CI around median	0.001	0.0380	Background	No Exceedance
18S	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CB around T-S line	0.163	4.0	Standard	No Exceedance
18S	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
18S	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	32	0	CB around T-S line	0.0326	0.04	Standard	No Exceedance
18S	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18S	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	0.0857	0.1	Standard	No Exceedance
18S	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	36	0	CI around median	7.3/7.4	6.5/9.0	Standard/Standard	No Exceedance
18S	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around mean	0.357	5	Standard	No Exceedance
18S	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	29	3	CB around T-S line	0.00449	0.05	Standard	No Exceedance
18S	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	81.7	400	Standard	No Exceedance
18S	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18S	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	481	1,620	Background	No Exceedance
18D	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18D	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	97	CI around median	0.001	0.010	Standard	No Exceedance
18D	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around T-S line	0.0625	2.0	Standard	No Exceedance
18D	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18D	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	33	0	CB around linear reg	1.16	2	Standard	No Exceedance
18D	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	94	CB around T-S line	0.000836	0.005	Standard	No Exceedance
18D	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	33	0	CI around mean	75.8	435	Background	No Exceedance
18D	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	27	94	CB around T-S line	0.0015	0.1	Standard	No Exceedance
18D	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	29	3	CB around linear reg	6.72e-06	0.0380	Background	No Exceedance
18D	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CI around median	0.15	4.0	Standard	No Exceedance
18D	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	90	CI around median	0.001	0.0075	Standard	No Exceedance
18D	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	0.0231	0.04	Standard	No Exceedance
18D	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18D	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	32	0	CI around median	0.0315	0.1	Standard	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18D	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	36	0	CI around median	7.2/7.2	6.5/9.0	Standard/Standard	No Exceedance
18D	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around mean	0.555	5	Standard	No Exceedance
18D	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	28	94	CB around T-S line	0.001	0.05	Standard	No Exceedance
18D	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	33	0	CB around linear reg	86.1	400	Standard	No Exceedance
18D	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18D	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	475	1,620	Background	No Exceedance
45S	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.006	Standard	No Exceedance
45S	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	93	CI around median	0.001	0.010	Standard	No Exceedance
45S	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.0792	2.0	Standard	No Exceedance
45S	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.004	Standard	No Exceedance
45S	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	30	0	CB around linear reg	0.214	2	Standard	No Exceedance
45S	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	43	CB around linear reg	0.00057	0.005	Standard	No Exceedance
45S	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	30	0	CB around linear reg	86.1	435	Background	No Exceedance
45S	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	28	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
45S	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	29	14	CI around geomean	0.0014	0.0380	Background	No Exceedance
45S	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CB around T-S line	0.244	4.0	Standard	No Exceedance
45S	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	78	CI around median	0.001	0.0075	Standard	No Exceedance
45S	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.011	0.04	Standard	No Exceedance
45S	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
45S	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.0415	0.1	Standard	No Exceedance
45S	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	30	0	CI around mean	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
45S	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around geomean	0.516	5	Standard	No Exceedance
45S	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	28	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
45S	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	30	0	CI around median	70	400	Standard	No Exceedance
45S	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.002	Standard	No Exceedance
45S	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	30	0	CI around mean	526	1,620	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
Compliance Result:

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

HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

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

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

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

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

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

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

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

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
03R	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.006	Standard	No Exceedance
03R	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	100	All ND - Last	0.001	0.010	Standard	No Exceedance
03R	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CI around geomean	0.0623	2.0	Standard	No Exceedance
03R	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.004	Standard	No Exceedance
03R	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	0.428	2	Standard	No Exceedance
03R	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	93	CB around T-S line	0.000615	0.005	Standard	No Exceedance
03R	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	76.5	435	Background	No Exceedance
03R	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	28	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
03R	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	29	97	CI around median	0.001	0.0380	Background	No Exceedance
03R	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CI around median	0.27	4.0	Standard	No Exceedance
03R	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
03R	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	33	0	CI around mean	0.0234	0.04	Standard	No Exceedance
03R	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
03R	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	0.0731	0.1	Standard	No Exceedance
03R	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	37	0	CI around median	7.2/7.3	6.5/9.0	Standard/Standard	No Exceedance
03R	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around median	0.27	5	Standard	No Exceedance
03R	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	30	7	CI around mean	0.00472	0.05	Standard	No Exceedance
03R	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	73	400	Standard	No Exceedance
03R	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.002	Standard	No Exceedance
03R	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	34	0	CI around mean	514	1,620	Background	No Exceedance
18S	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18S	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	97	CI around median	0.001	0.010	Standard	No Exceedance
18S	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.051	2.0	Standard	No Exceedance
18S	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18S	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	1.06	2	Standard	No Exceedance
18S	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	79	CB around T-S line	0.000562	0.005	Standard	No Exceedance
18S	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	34	0	CB around linear reg	68.9	435	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18S	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	29	61	CI around median	0.0015	0.1	Standard	No Exceedance
18S	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	29	85	CI around median	0.001	0.0380	Background	No Exceedance
18S	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CB around T-S line	0.167	4.0	Standard	No Exceedance
18S	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
18S	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	33	0	CB around T-S line	0.0333	0.04	Standard	No Exceedance
18S	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18S	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	0.0828	0.1	Standard	No Exceedance
18S	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	37	0	CI around median	7.3/7.4	6.5/9.0	Standard/Standard	No Exceedance
18S	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around mean	0.352	5	Standard	No Exceedance
18S	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	30	3	CB around T-S line	0.00454	0.05	Standard	No Exceedance
18S	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	81.8	400	Standard	No Exceedance
18S	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18S	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	34	0	CI around geomean	569	1,620	Background	No Exceedance
18D	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18D	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	97	CI around median	0.001	0.010	Standard	No Exceedance
18D	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around T-S line	0.0625	2.0	Standard	No Exceedance
18D	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18D	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	34	0	CB around linear reg	1.14	2	Standard	No Exceedance
18D	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	94	CB around T-S line	0.000803	0.005	Standard	No Exceedance
18D	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	34	0	CI around mean	75.8	435	Background	No Exceedance
18D	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	28	94	CB around T-S line	0.0015	0.1	Standard	No Exceedance
18D	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	30	3	CB around linear reg	-0.000149	0.0380	Background	No Exceedance
18D	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CI around median	0.15	4.0	Standard	No Exceedance
18D	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	91	CB around T-S line	0.000905	0.0075	Standard	No Exceedance
18D	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	0.0227	0.04	Standard	No Exceedance
18D	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18D	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	33	0	CI around median	0.0315	0.1	Standard	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18D	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	37	0	CI around median	7.2/7.2	6.5/9.0	Standard/Standard	No Exceedance
18D	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around mean	0.55	5	Standard	No Exceedance
18D	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	29	94	CB around T-S line	0.001	0.05	Standard	No Exceedance
18D	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	34	0	CB around linear reg	85.9	400	Standard	No Exceedance
18D	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18D	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	477	1,620	Background	No Exceedance
45S	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.006	Standard	No Exceedance
45S	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	93	CI around median	0.001	0.010	Standard	No Exceedance
45S	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.0799	2.0	Standard	No Exceedance
45S	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.004	Standard	No Exceedance
45S	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	31	0	CB around linear reg	0.218	2	Standard	No Exceedance
45S	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	41	CB around linear reg	0.000587	0.005	Standard	No Exceedance
45S	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	31	0	CB around linear reg	87.1	435	Background	No Exceedance
45S	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	29	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
45S	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	30	13	CI around geomean	0.00142	0.0380	Background	No Exceedance
45S	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CB around T-S line	0.242	4.0	Standard	No Exceedance
45S	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	79	CI around median	0.001	0.0075	Standard	No Exceedance
45S	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.0109	0.04	Standard	No Exceedance
45S	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
45S	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.0405	0.1	Standard	No Exceedance
45S	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	31	0	CI around mean	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
45S	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around geomean	0.508	5	Standard	No Exceedance
45S	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	29	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
45S	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	31	0	CI around median	70	400	Standard	No Exceedance
45S	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.002	Standard	No Exceedance
45S	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	31	0	CI around mean	528	1,620	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
Compliance Result:
No Exceedance: the statistical result did not exceed the GWPS.
HSU = hydrostratigraphic unit:
UA = Uppermost Aquifer
mg/L = milligrams per liter
Missing Code (if applicable):
NR[1] = Select parameters were not analyzed.
NS[1] = This well has been, or will be, abandoned; therefore, a sample was not collected.
NS[2] = Well either needs or was undergoing maintenance, therefore, a sample was not collected.
NS[3] = A sample was not collected because the location was inaccessible.
NS[4] = The location could not be found, therefore a sample was not collected.
NS[5] = A sample was not collected because of damage to the well.
NS[6] = A sample was not collected because of pump issues.
NS[7] = A sample was not collected because the well was either dry or was purged dry and did not recover.
PM[1] = Select parameters were not analyzed as the well purged dry during sample collection and did not sufficiently recover to sample for all parameters.
ND = non-detect
pCi/L = picocuries per liter
SU = standard units
Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result
Statistical Calculation = method used to calculate the statistical result:
All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown
CB around T-S line = Confidence band around Thiel-Sen line
CB around linear reg = Confidence band around linear regression
CI around geomean = Confidence interval around the geometric mean
CI around mean = Confidence interval around the mean
CI around median = Confidence interval around the median
Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range
For pH, the values presented are the lower / upper limits
GWPS = Groundwater Protection Standard
GWPS Source:
Background = background concentration
Standard = standard specified in 35 I.A.C. § 845.600(a)(1)

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
03R	UA	E007	Antimony, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.003	0.006	Standard	No Exceedance
03R	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/09/24	29	100	All ND - Last	0.001	0.010	Standard	No Exceedance
03R	UA	E007	Barium, total	mg/L	12/09/15 - 10/09/24	31	0	CI around mean	0.062	2.0	Standard	No Exceedance
03R	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.001	0.004	Standard	No Exceedance
03R	UA	E007	Boron, total	mg/L	12/09/15 - 10/09/24	35	0	CB around T-S line	0.356	2	Standard	No Exceedance
03R	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/09/24	30	93	CB around T-S line	0.000596	0.005	Standard	No Exceedance
03R	UA	E007	Chloride, total	mg/L	12/09/15 - 10/09/24	35	0	CI around geomean	71.3	435	Background	No Exceedance
03R	UA	E007	Chromium, total	mg/L	12/09/15 - 10/09/24	29	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
03R	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/09/24	30	97	CI around median	0.001	0.0380	Background	No Exceedance
03R	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/09/24	32	3	CI around median	0.27	4.0	Standard	No Exceedance
03R	UA	E007	Lead, total	mg/L	12/09/15 - 10/09/24	29	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
03R	UA	E007	Lithium, total	mg/L	12/09/15 - 10/09/24	34	0	CI around mean	0.0232	0.04	Standard	No Exceedance
03R	UA	E007	Mercury, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
03R	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/09/24	34	0	CB around linear reg	0.0683	0.1	Standard	No Exceedance
03R	UA	E007	pH (field)	SU	12/09/15 - 10/09/24	38	0	CB around T-S line	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
03R	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/09/24	29	0	CI around median	0.28	5	Standard	No Exceedance
03R	UA	E007	Selenium, total	mg/L	12/09/15 - 10/09/24	31	6	CI around mean	0.00472	0.05	Standard	No Exceedance
03R	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/09/24	34	0	CB around linear reg	71.8	400	Standard	No Exceedance
03R	UA	E007	Thallium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.002	0.002	Standard	No Exceedance
03R	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/09/24	35	0	CI around mean	514	1,620	Background	No Exceedance
18S	UA	E007	Antimony, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18S	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/08/24	29	97	CI around median	0.001	0.010	Standard	No Exceedance
18S	UA	E007	Barium, total	mg/L	12/09/15 - 10/08/24	31	0	CB around linear reg	0.0507	2.0	Standard	No Exceedance
18S	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18S	UA	E007	Boron, total	mg/L	12/09/15 - 10/08/24	35	0	CB around T-S line	1.15	2	Standard	No Exceedance
18S	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/08/24	30	79	CB around T-S line	0.000586	0.005	Standard	No Exceedance
18S	UA	E007	Chloride, total	mg/L	12/09/15 - 10/08/24	35	0	CB around linear reg	67.8	435	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18S	UA	E007	Chromium, total	mg/L	12/09/15 - 10/08/24	30	62	CB around T-S line	0.0015	0.1	Standard	No Exceedance
18S	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/08/24	30	85	CI around median	0.001	0.0380	Background	No Exceedance
18S	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/08/24	32	3	CB around T-S line	0.168	4.0	Standard	No Exceedance
18S	UA	E007	Lead, total	mg/L	12/09/15 - 10/08/24	29	100	All ND - Last	0.0005	0.0075	Standard	No Exceedance
18S	UA	E007	Lithium, total	mg/L	12/09/15 - 10/08/24	34	0	CB around T-S line	0.0333	0.04	Standard	No Exceedance
18S	UA	E007	Mercury, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18S	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/08/24	34	0	CB around linear reg	0.081	0.1	Standard	No Exceedance
18S	UA	E007	pH (field)	SU	12/09/15 - 10/08/24	38	0	CI around median	7.3/7.4	6.5/9.0	Standard/Standard	No Exceedance
18S	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/08/24	29	0	CI around mean	0.356	5	Standard	No Exceedance
18S	UA	E007	Selenium, total	mg/L	12/09/15 - 10/08/24	31	3	CB around T-S line	0.00105	0.05	Standard	No Exceedance
18S	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/08/24	35	0	CB around T-S line	85.2	400	Standard	No Exceedance
18S	UA	E007	Thallium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18S	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/08/24	35	0	CI around geomean	568	1,620	Background	No Exceedance
18D	UA	E007	Antimony, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.003	0.006	Standard	No Exceedance
18D	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/08/24	29	97	CI around median	0.001	0.010	Standard	No Exceedance
18D	UA	E007	Barium, total	mg/L	12/09/15 - 10/08/24	31	0	CB around T-S line	0.0618	2.0	Standard	No Exceedance
18D	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.001	0.004	Standard	No Exceedance
18D	UA	E007	Boron, total	mg/L	12/09/15 - 10/08/24	35	0	CB around linear reg	1.12	2	Standard	No Exceedance
18D	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/08/24	30	94	CB around T-S line	0.000765	0.005	Standard	No Exceedance
18D	UA	E007	Chloride, total	mg/L	12/09/15 - 10/08/24	35	0	CI around mean	75.4	435	Background	No Exceedance
18D	UA	E007	Chromium, total	mg/L	12/09/15 - 10/08/24	29	94	CB around T-S line	0.0015	0.1	Standard	No Exceedance
18D	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/08/24	31	3	CB around linear reg	-0.000248	0.0380	Background	No Exceedance
18D	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/08/24	32	3	CI around median	0.15	4.0	Standard	No Exceedance
18D	UA	E007	Lead, total	mg/L	12/09/15 - 10/08/24	29	91	CB around T-S line	0.000827	0.0075	Standard	No Exceedance
18D	UA	E007	Lithium, total	mg/L	12/09/15 - 10/08/24	34	0	CB around linear reg	0.0225	0.04	Standard	No Exceedance
18D	UA	E007	Mercury, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
18D	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/08/24	34	0	CI around median	0.0315	0.1	Standard	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	GWPS	GWPS Source	Compliance Result
18D	UA	E007	pH (field)	SU	12/09/15 - 10/08/24	38	0	CI around median	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
18D	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/08/24	29	0	CI around mean	0.575	5	Standard	No Exceedance
18D	UA	E007	Selenium, total	mg/L	12/09/15 - 10/08/24	30	94	CB around T-S line	0.001	0.05	Standard	No Exceedance
18D	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/08/24	35	0	CB around linear reg	86.5	400	Standard	No Exceedance
18D	UA	E007	Thallium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.002	0.002	Standard	No Exceedance
18D	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/08/24	35	0	CB around T-S line	469	1,620	Background	No Exceedance
45S	UA	E007	Antimony, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.003	0.006	Standard	No Exceedance
45S	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/09/24	29	93	CI around median	0.001	0.010	Standard	No Exceedance
45S	UA	E007	Barium, total	mg/L	12/09/15 - 10/09/24	31	0	CB around linear reg	0.0783	2.0	Standard	No Exceedance
45S	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.001	0.004	Standard	No Exceedance
45S	UA	E007	Boron, total	mg/L	12/09/15 - 10/09/24	32	0	CB around linear reg	0.22	2	Standard	No Exceedance
45S	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/09/24	30	40	CB around linear reg	0.000582	0.005	Standard	No Exceedance
45S	UA	E007	Chloride, total	mg/L	12/09/15 - 10/09/24	32	0	CI around mean	81.2	435	Background	No Exceedance
45S	UA	E007	Chromium, total	mg/L	12/09/15 - 10/09/24	30	93	CB around T-S line	0.0015	0.1	Standard	No Exceedance
45S	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/09/24	31	13	CI around geomean	0.00142	0.0380	Background	No Exceedance
45S	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/09/24	32	3	CB around T-S line	0.241	4.0	Standard	No Exceedance
45S	UA	E007	Lead, total	mg/L	12/09/15 - 10/09/24	29	79	CI around median	0.001	0.0075	Standard	No Exceedance
45S	UA	E007	Lithium, total	mg/L	12/09/15 - 10/09/24	31	0	CB around linear reg	0.0108	0.04	Standard	No Exceedance
45S	UA	E007	Mercury, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.0002	0.002	Standard	No Exceedance
45S	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/09/24	31	0	CB around linear reg	0.0396	0.1	Standard	No Exceedance
45S	UA	E007	pH (field)	SU	12/09/15 - 10/09/24	32	0	CI around mean	7.1/7.2	6.5/9.0	Standard/Standard	No Exceedance
45S	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/09/24	29	0	CI around geomean	0.457	5	Standard	No Exceedance
45S	UA	E007	Selenium, total	mg/L	12/09/15 - 10/09/24	30	100	All ND - Last	0.0025	0.05	Standard	No Exceedance
45S	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/09/24	32	0	CI around median	70	400	Standard	No Exceedance
45S	UA	E007	Thallium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.002	0.002	Standard	No Exceedance
45S	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/09/24	32	0	CI around mean	527	1,620	Background	No Exceedance

TABLE 2.
EVALUATION OF COMPLIANCE - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
Compliance Result:
- No Exceedance: the statistical result did not exceed the GWPS.
  - Throughout this document, "exceedance" or "exceedances" is intended to refer only to potential exceedances of proposed applicable background statistics or Groundwater Protection Standards (GWPSs) as described in the proposed groundwater monitoring program which was submitted to the Illinois Environmental Protection Agency (IEPA) on October 25, 2021 as part of Dynegy Midwest Generation, LLC's (DMG's) operating permit application for the Ash Pond No. 2 and Ash Pond No. 4. That operating permit application, including the proposed groundwater monitoring program, remains under review by the IEPA and, therefore, DMG has not identified any actual exceedances.

Events:
- E007 = Quarter 4, 2024 sampling event

HSU = hydrostratigraphic unit:
- UA = Uppermost Aquifer

mg/L = milligrams per liter
ND = non-detect
pCi/L = picocuries per liter
SU = standard units
Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result
Statistical Calculation = method used to calculate the statistical result:
- All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown
- CB around T-S line = Confidence band around Thiel-Sen line
- CB around T-S line = Confidence band around Thiel-Sen line
- CB around linear reg = Confidence band around linear regression
- CI around geomean = Confidence interval around the geometric mean
- CI around mean = Confidence interval around the mean
- CI around median = Confidence interval around the median

Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range
Statistical Result Code (if applicable):
- NR[1] = Parameter not analyzed.
- NS[1] = Well has been, or will be, abandoned; therefore, a sample was not collected.
- NS[2] = Well either needs or was undergoing maintenance; therefore, a sample was not collected.
- NS[3] = The location was not accessible; therefore, a sample was not collected.
- NS[4] = The location could not be found; therefore, a sample was not collected.
- NS[5] = The location was damaged; therefore, a sample was not collected.
- NS[6] = Sampling pump could not yield a sample.
- NS[7] = Well was either dry or purged dry and did not recover sufficiently to yield adequate volume for a sample.
- NS[8] = A sample was not collected.
- PM[1] = Parameter not analyzed as the well purged dry during sample collection and did not sufficiently recover to yield adequate sample volume for analysis.

For pH, the values presented are the lower / upper limits
GWPS Source:
- Background = background concentration
- Standard = standard specified in 35 I.A.C. § 845.600(a)(1)

FIGURES

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

0 200 400
Feet

MONITORING WELL LOCATION MAP

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22285\MXD\845_Operating_Permit\Hennepin\GMP_802\Figure 2-1_Proposed Monitoring Well Network.mxd

PROJECT: 169000XXXX | DATED: 9/29/2021 | DESIGNER: STOLZSD

COMPLIANCE WELL WITHOUT EXCEEDANCE

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

LIMITS OF FINAL COVER

PROPERTY BOUNDARY

0 175 350 Feet

GWPS EXCEEDANCE MAP UPPERMOST AQUIFER QUARTER 4, 2023 - QUARTER 4, 2024

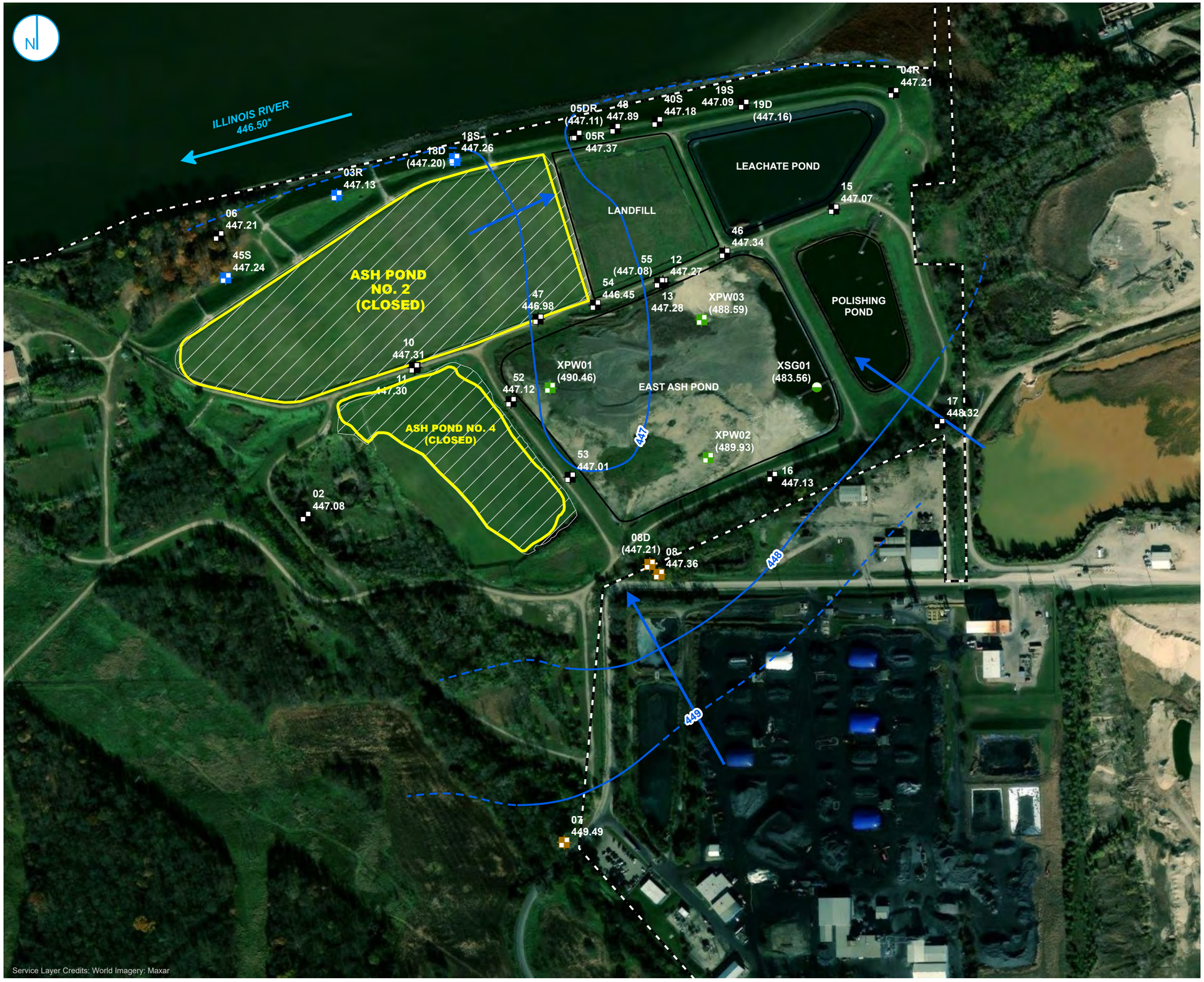
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP JANUARY 22-23, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

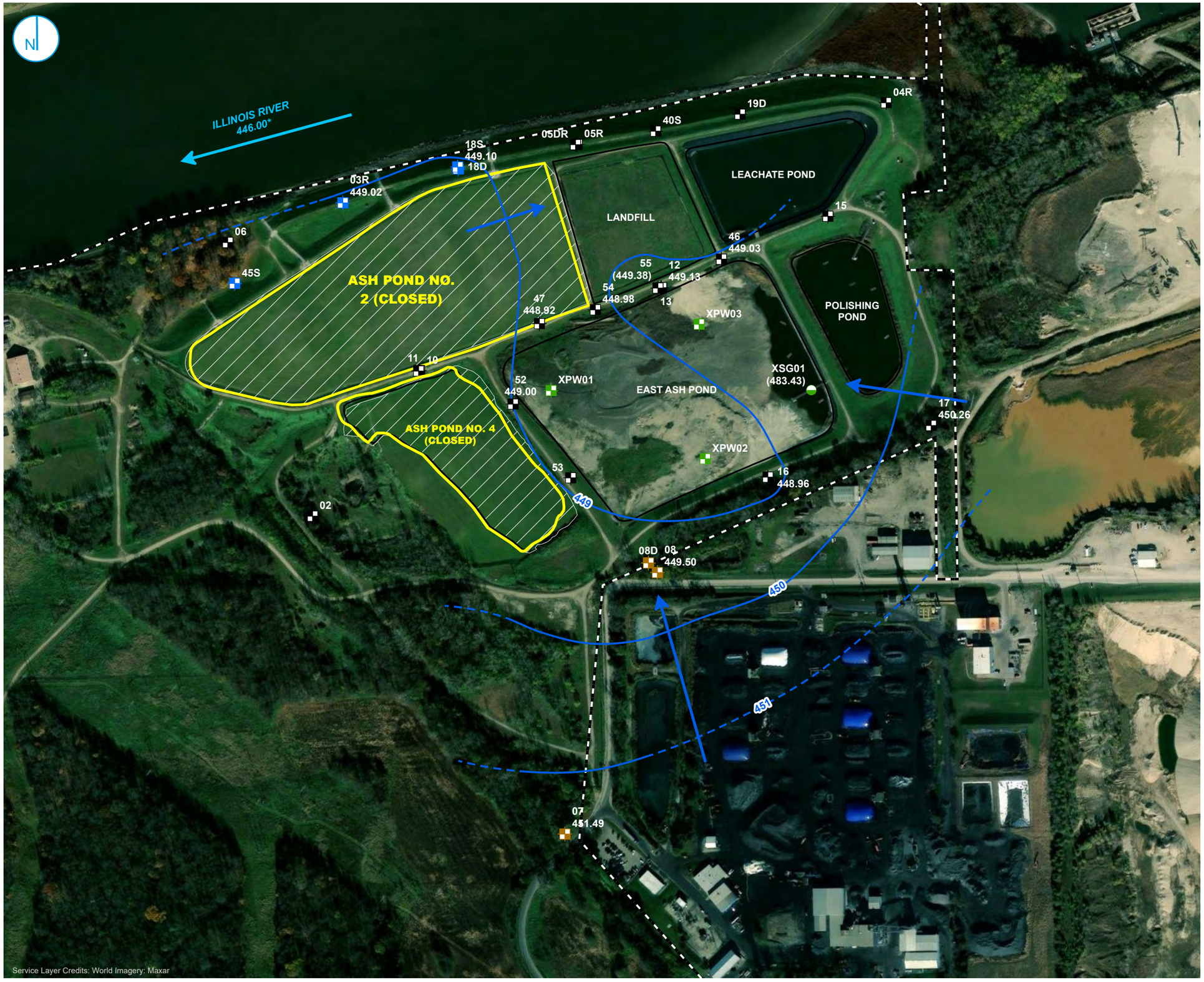
HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240122
PROJECT: 169000XXXX | DATED: 3/28/2024 | DESIGNER: GALARNMC



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP
FEBRUARY 15, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND NO.2 AND ASH POND NO.4

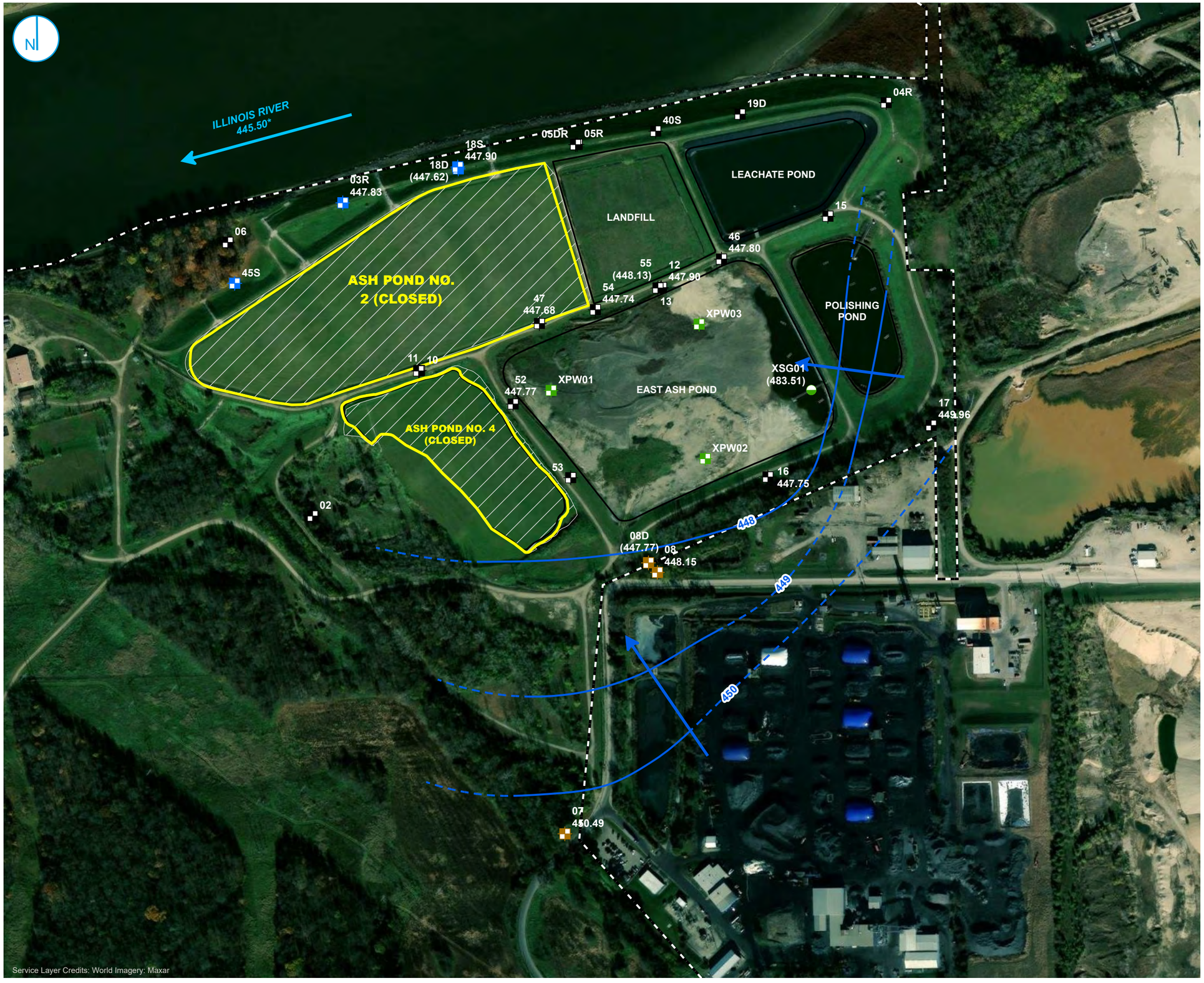
HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 4

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240215
PROJECT: 169000XXXX | DATED: 7/17/2024 | DESIGNER: GALARNMC



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP MARCH 15, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

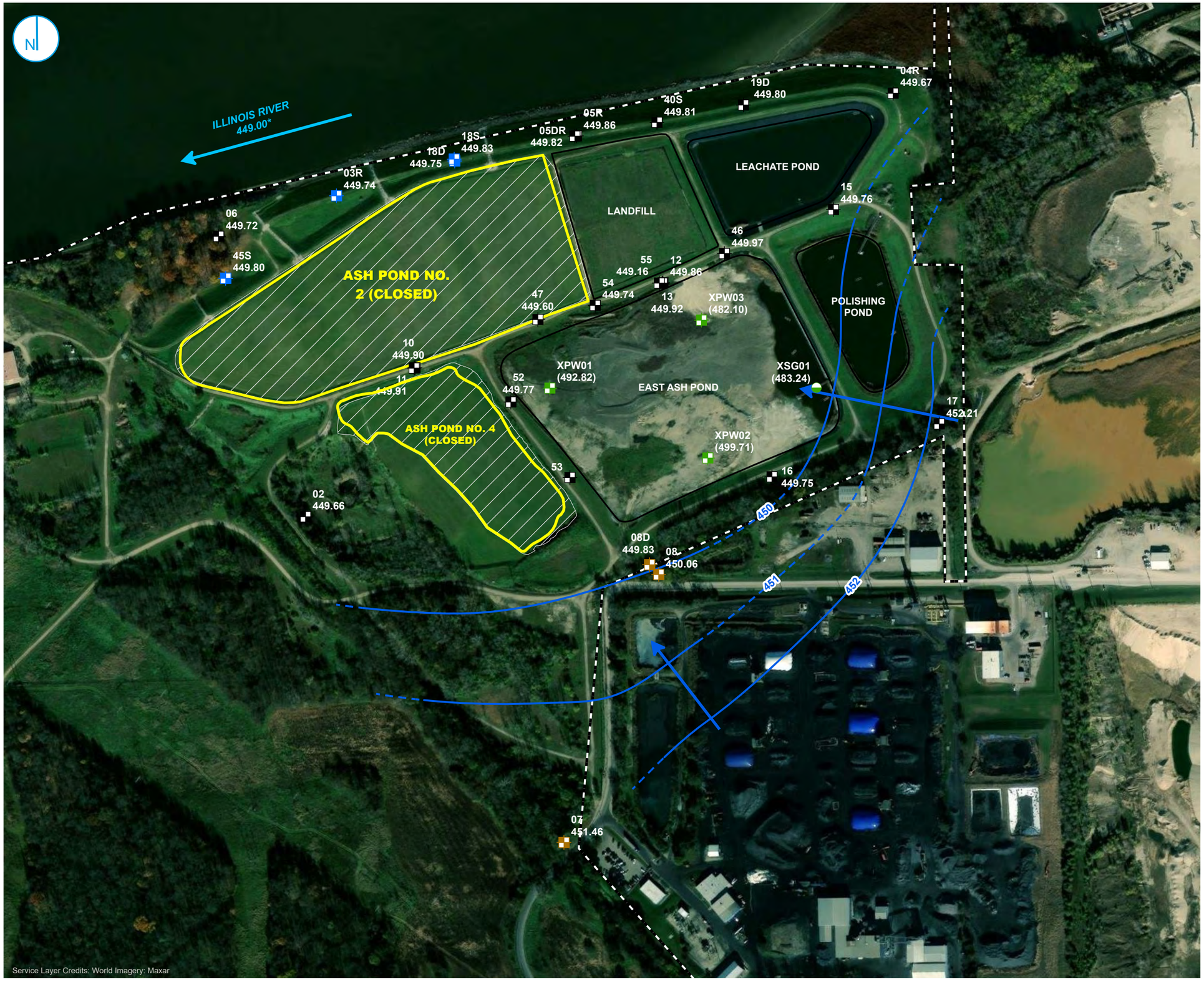
FIGURE 5

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240315

PROJECT: 169000XXXX | DATED: 7/22/2024 | DESIGNER: GALARNMC



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP APRIL 15-16, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

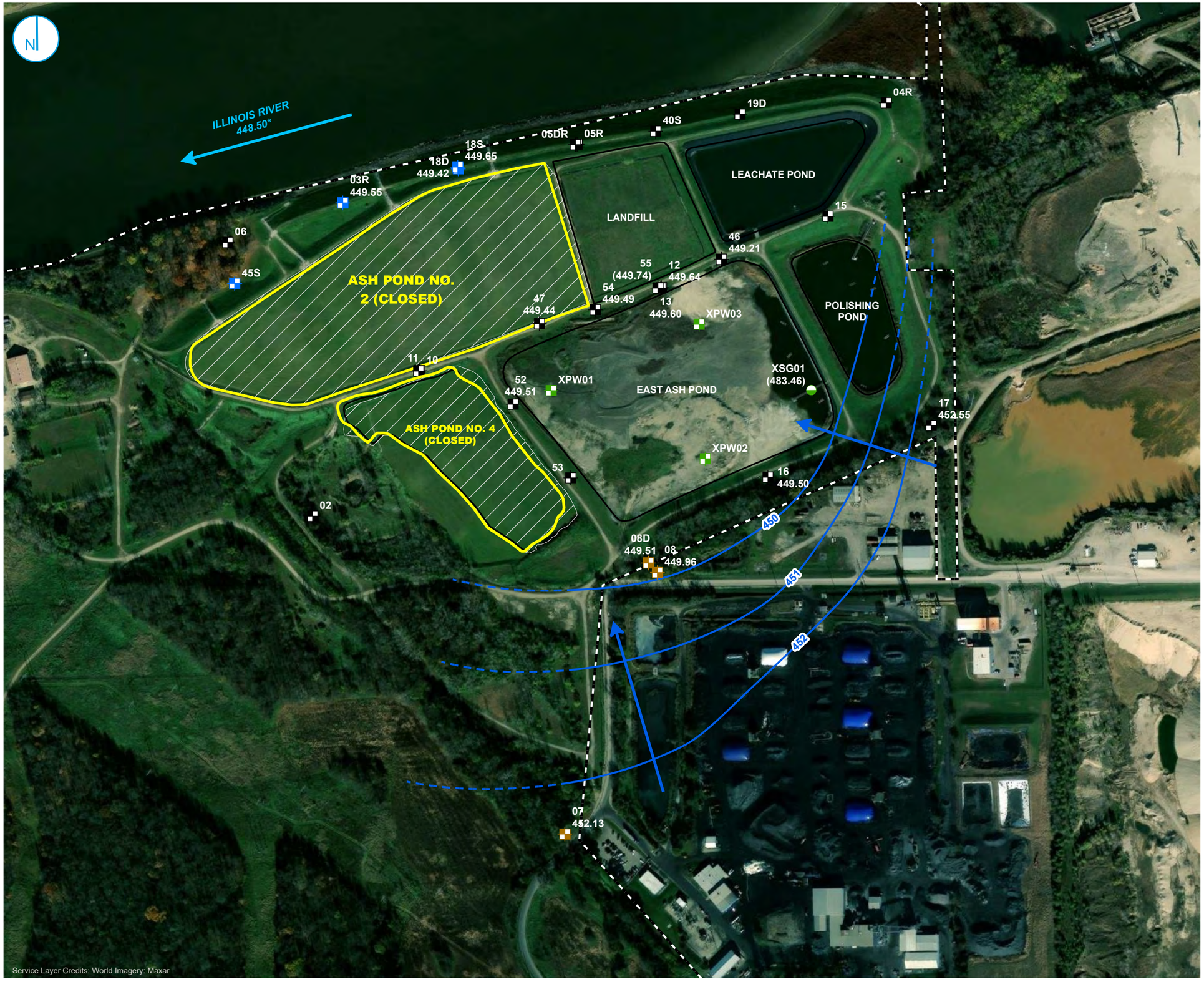
FIGURE 6

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240415

PROJECT: 169000XXXX | DATED: 8/1/2024 | DESIGNER: GALARNMC



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP MAY 15, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 7

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240515

PROJECT: 169000XXXX | DATED: 8/15/2024 | DESIGNER: GALARNMC

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP
JUNE 15, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND NO.2 AND ASH POND NO.4

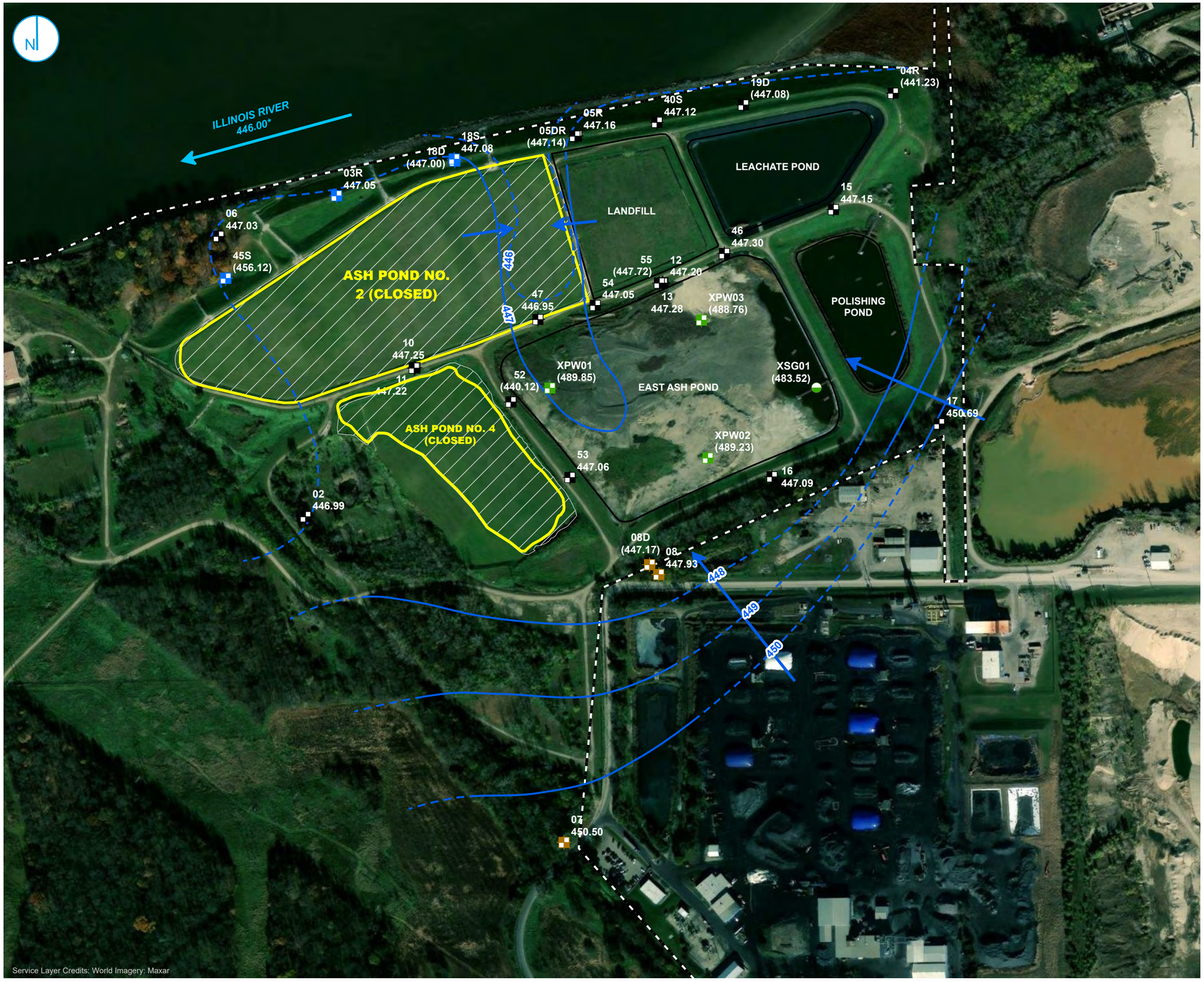
HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 8

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240615
PROJECT: 169000XXXX | DATED: 8/15/2024 | DESIGNER: GALARNMC



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP JULY 15, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

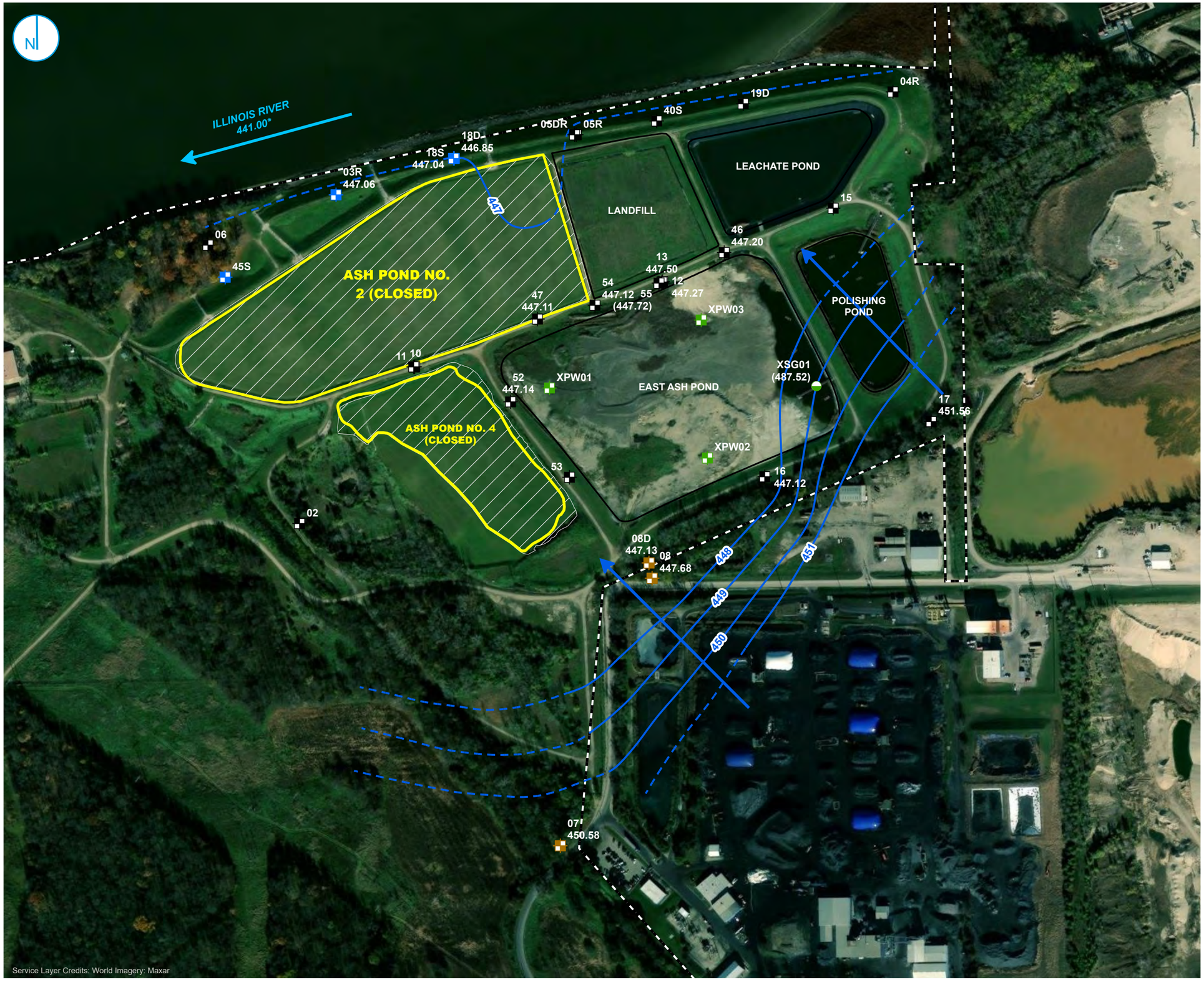
FIGURE 9

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22851\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240715

PROJECT: 169000XXXX | DATED: 9/9/2024 | DESIGNER: GALARNMC



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP AUGUST 7, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 10

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22851\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240807

PROJECT: 1690000XXXX | DATED: 11/13/2024 | DESIGNER: PWYSIATKO

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP SEPTEMBER 7, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

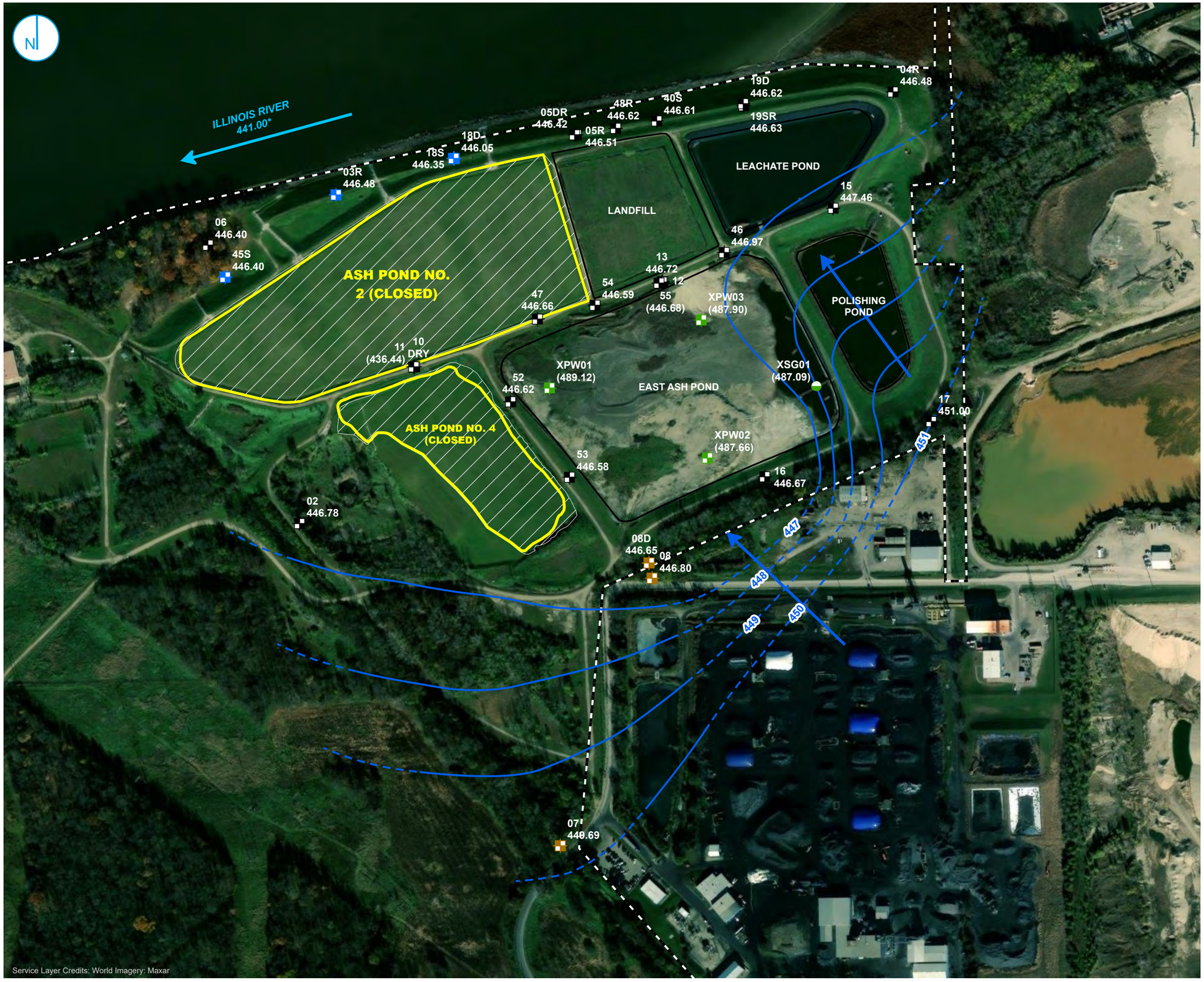
FIGURE 11

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20240907

PROJECT: 1690000XXXX | DATED: 11/12/2024 | DESIGNER: PWYSIATKO



Service Layer Credits: World Imagery: Maxar

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP OCTOBER 7, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 12

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22851\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20241007

PROJECT: 169000XXXX | DATED: 12/2/2024 | DESIGNER: PWYSIATKO

- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP NOVEMBER 19, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

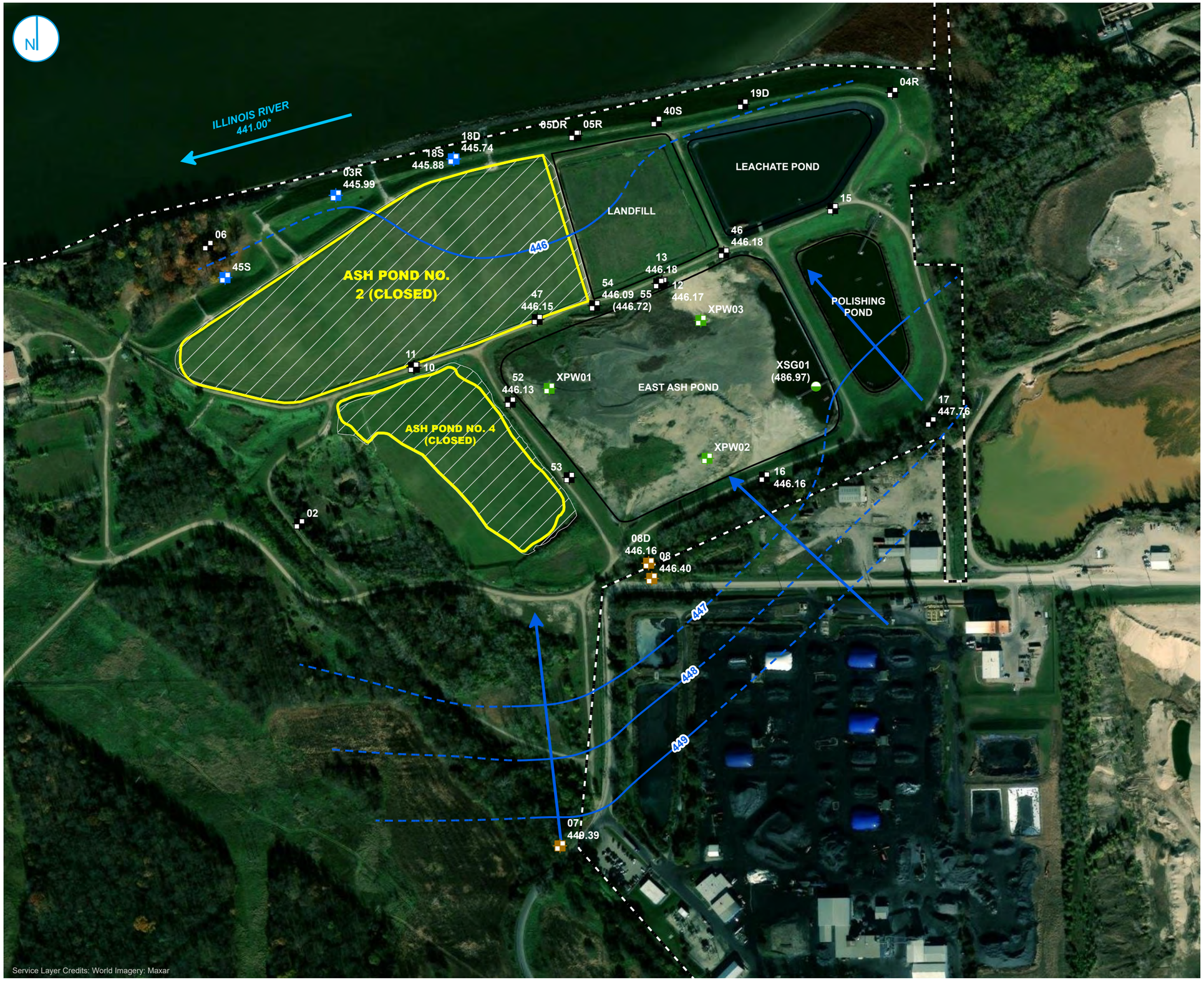
FIGURE 13

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\22685\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20241119

PROJECT: 169000XXXX | DATED: 1/6/2025 | DESIGNER: PWYSIATKO



- COMPLIANCE MONITORING WELL
- BACKGROUND MONITORING WELL
- MONITORING WELL
- PORE WATER WELL
- STAFF GAGE, CCR UNIT
- GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- LIMITS OF FINAL COVER
- PROPERTY BOUNDARY

NOTES:
1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT.

0 175 350
Feet

POTENTIOMETRIC SURFACE MAP DECEMBER 18-19, 2024

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT ASH POND NO.2 AND ASH POND NO.4

HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS

FIGURE 14

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\Mapping\Projects\22\2285\MXD\GW_Contours\Round_2024\Hennepin\AP2_802\HEN_802_AP2_2024.aprx\HEN 802 AP2 Pot Surface 20241218_19
PROJECT: 169000XXXX | DATED: 1/6/2025 | DESIGNER: PWYSIATKO

ATTACHMENTS

ATTACHMENT A
GROUNDWATER ELEVATION DATA

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
03R	Compliance	UA	01/22/2024	34.96	447.13
03R	Compliance	UA	02/15/2024	33.06	449.02
03R	Compliance	UA	03/15/2024	34.25	447.83
03R	Compliance	UA	04/15/2024	32.35	449.74
03R	Compliance	UA	05/15/2024	32.54	449.55
03R	Compliance	UA	06/15/2024	34.05	448.04
03R	Compliance	UA	07/15/2024	35.04	447.05
03R	Compliance	UA	08/07/2024	35.42	447.06
03R	Compliance	UA	09/07/2024	36.20	446.28
03R	Compliance	UA	10/07/2024	36.01	446.48
03R	Compliance	UA	11/19/2024	35.64	446.84
03R	Compliance	UA	12/19/2024	36.50	445.99
07	Background	UA	01/22/2024	68.78	449.49
07	Background	UA	02/15/2024	66.77	451.49
07	Background	UA	03/15/2024	67.77	450.49
07	Background	UA	04/15/2024	66.81	451.46
07	Background	UA	05/15/2024	66.14	452.13
07	Background	UA	06/15/2024	67.10	451.17
07	Background	UA	07/15/2024	67.77	450.50
07	Background	UA	08/07/2024	68.21	450.58
07	Background	UA	09/07/2024	69.01	449.78
07	Background	UA	10/07/2024	69.10	449.69
07	Background	UA	11/19/2024	68.80	449.99
07	Background	UA	12/19/2024	69.40	449.39
08	Background	UA	01/22/2024	53.82	447.36
08	Background	UA	02/15/2024	51.67	449.50
08	Background	UA	03/15/2024	53.02	448.15
08	Background	UA	04/15/2024	51.12	450.06
08	Background	UA	05/15/2024	51.22	449.96
08	Background	UA	06/15/2024	52.53	448.65
08	Background	UA	07/15/2024	53.25	447.93
08	Background	UA	08/07/2024	53.82	447.68
08	Background	UA	09/07/2024	54.63	446.87
08	Background	UA	10/07/2024	54.71	446.80
08	Background	UA	11/19/2024	54.17	447.33
08	Background	UA	12/19/2024	55.11	446.40
08D	Background	UA	01/22/2024	54.20	447.21
08D	Background	UA	02/15/2024	DM[7]	
08D	Background	UA	03/15/2024	53.63	447.77
08D	Background	UA	04/15/2024	51.58	449.83
08D	Background	UA	05/15/2024	51.90	449.51
08D	Background	UA	06/15/2024	53.25	448.16
08D	Background	UA	07/15/2024	54.24	447.17
08D	Background	UA	08/07/2024	54.63	447.13
08D	Background	UA	09/07/2024	55.40	446.36
08D	Background	UA	10/07/2024	55.12	446.65

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
08D	Background	UA	11/19/2024	54.92	446.84
08D	Background	UA	12/19/2024	55.61	446.16
18S	Compliance	UA	01/22/2024	40.42	447.26
18S	Compliance	UA	02/15/2024	38.57	449.10
18S	Compliance	UA	03/15/2024	39.77	447.90
18S	Compliance	UA	04/15/2024	37.85	449.83
18S	Compliance	UA	05/15/2024	38.03	449.65
18S	Compliance	UA	06/15/2024	39.63	448.05
18S	Compliance	UA	07/15/2024	40.60	447.08
18S	Compliance	UA	08/07/2024	40.93	447.04
18S	Compliance	UA	09/07/2024	41.70	446.26
18S	Compliance	UA	10/07/2024	41.63	446.35
18S	Compliance	UA	11/19/2024	40.97	446.99
18S	Compliance	UA	12/19/2024	42.10	445.88
18D	Compliance	UA	01/22/2024	40.57	447.20
18D	Compliance	UA	02/15/2024	DM[1]	
18D	Compliance	UA	03/15/2024	40.14	447.62
18D	Compliance	UA	04/15/2024	38.02	449.75
18D	Compliance	UA	05/15/2024	38.35	449.42
18D	Compliance	UA	06/15/2024	40.16	447.61
18D	Compliance	UA	07/15/2024	40.77	447.00
18D	Compliance	UA	08/07/2024	41.18	446.85
18D	Compliance	UA	09/07/2024	41.95	446.07
18D	Compliance	UA	10/07/2024	41.99	446.05
18D	Compliance	UA	11/19/2024	41.30	446.72
18D	Compliance	UA	12/19/2024	42.30	445.74
45S	Compliance	UA	01/22/2024	20.24	447.24
45S	Compliance	UA	02/15/2024	DM[1]	
45S	Compliance	UA	03/15/2024	DM[1]	
45S	Compliance	UA	04/15/2024	17.68	449.80
45S	Compliance	UA	05/15/2024	DM[1]	
45S	Compliance	UA	06/15/2024	DM[1]	
45S	Compliance	UA	07/16/2024	20.26	447.22
45S	Compliance	UA	08/07/2024	DM[1]	
45S	Compliance	UA	09/07/2024	DM[1]	
45S	Compliance	UA	10/07/2024	21.29	446.40
45S	Compliance	UA	11/19/2024	DM[1]	
45S	Compliance	UA	12/18/2024	DM[1]	

ATTACHMENT A
GROUNDWATER ELEVATION DATA
2024 35 I.A.C. § 845 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
BMP = below measuring point
Depth to Groundwater/Groundwater Elevation Code (if applicable):

- DM[1] = Depth to water was not measured.
- DM[2] = Depth to water was not measured because water was above or below the staff gage markings.
- DM[3] = Depth to water was not measured because the location was inaccessible.
- DM[4] = Depth to water was not measured because water level was below the top of the pump.
- DM[5] = Depth to water was not measured because water level was above the top of casing (artesian well).
- DM[6] = Depth to water was not measured because of damage to the well.
- DM[7] = Depth to water was not measured due to required pressure transducer maintenance.
- DM[8] = Lab provided groundwater elevation data and not depth to water.

NAVD88 = North American Vertical Datum of 1988
Monitored Unit Abbreviations:

- UA = uppermost aquifer

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ATTACHMENT B
COMPARISON TO BACKGROUND

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
03R	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.001
03R	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	100	All ND - Last	0.001	0.001
03R	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CI around mean	0.0622	0.212
03R	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.001
03R	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	0.447	0.163
03R	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	93	CB around T-S line	0.000644	0.00230
03R	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	77.9	435
03R	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	26	92	CB around T-S line	0.0015	0.00100
03R	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	27	96	CI around median	0.001	0.0380
03R	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CI around median	0.27	0.120
03R	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	100	All ND - Last	0.0005	0.00150
03R	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	31	0	CI around mean	0.0236	0.0190
03R	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.0002
03R	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0826	0.00170
03R	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	35	0	CI around median	7.2/7.3	6.6/7.5
03R	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around median	0.28	1.50
03R	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	28	7	CB around T-S line	0.00171	0.00140
03R	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	72.9	215
03R	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.001
03R	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	32	0	CI around mean	512	1,620
18S	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.001
18S	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	97	CI around median	0.001	0.001
18S	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.0502	0.212
18S	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.001
18S	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	0.935	0.163
18S	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	77	CB around T-S line	0.00054	0.00230
18S	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	32	0	CB around linear reg	69.8	435

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18S	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	27	58	CI around median	0.0015	0.00100
18S	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	27	84	CI around median	0.001	0.0380
18S	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CB around T-S line	0.171	0.120
18S	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	100	All ND - Last	0.0005	0.00150
18S	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0351	0.0190
18S	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.0002
18S	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0871	0.00170
18S	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	35	0	CI around median	7.3/7.4	6.6/7.5
18S	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around mean	0.344	1.50
18S	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	28	3	CB around T-S line	0.000606	0.00140
18S	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	77.5	215
18S	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.001
18S	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	476	1,620
18D	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.001
18D	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	97	CI around median	0.001	0.001
18D	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around T-S line	0.0638	0.212
18D	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.001
18D	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	32	0	CB around linear reg	1.2	0.163
18D	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	94	CB around T-S line	0.000891	0.00230
18D	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	32	0	CI around mean	75.9	435
18D	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	26	93	CB around T-S line	0.0015	0.00100
18D	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	28	3	CB around linear reg	0.000118	0.0380
18D	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CI around median	0.15	0.120
18D	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	93	CI around median	0.001	0.00150
18D	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	31	0	CB around linear reg	0.0228	0.0190
18D	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.0002
18D	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	31	0	CI around median	0.0315	0.00170

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18D	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	35	0	CI around median	7.1/7.2	6.6/7.5
18D	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around mean	0.544	1.50
18D	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	27	94	CB around T-S line	0.001	0.00140
18D	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	32	0	CB around linear reg	87.2	215
18D	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.001
18D	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	32	0	CB around T-S line	468	1,620
45S	UA	E004	Antimony, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.003	0.001
45S	UA	E004	Arsenic, total	mg/L	12/09/15 - 01/25/24	26	92	CI around median	0.001	0.001
45S	UA	E004	Barium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.0787	0.212
45S	UA	E004	Beryllium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.001	0.001
45S	UA	E004	Boron, total	mg/L	12/09/15 - 01/25/24	29	0	CB around linear reg	0.211	0.163
45S	UA	E004	Cadmium, total	mg/L	12/09/15 - 01/25/24	27	44	CB around linear reg	0.000569	0.00230
45S	UA	E004	Chloride, total	mg/L	12/09/15 - 01/25/24	29	0	CB around linear reg	86.1	435
45S	UA	E004	Chromium, total	mg/L	12/09/15 - 01/25/24	27	93	CB around T-S line	0.0015	0.00100
45S	UA	E004	Cobalt, total	mg/L	12/09/15 - 01/25/24	28	14	CI around geomean	0.00139	0.0380
45S	UA	E004	Fluoride, total	mg/L	12/09/15 - 01/25/24	29	3	CB around T-S line	0.24	0.120
45S	UA	E004	Lead, total	mg/L	12/09/15 - 01/25/24	26	81	CI around median	0.001	0.00150
45S	UA	E004	Lithium, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.0106	0.0190
45S	UA	E004	Mercury, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.0002	0.0002
45S	UA	E004	Molybdenum, total	mg/L	12/09/15 - 01/25/24	28	0	CB around linear reg	0.042	0.00170
45S	UA	E004	pH (field)	SU	12/09/15 - 01/25/24	29	0	CI around mean	7.1/7.2	6.6/7.5
45S	UA	E004	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 01/25/24	26	0	CI around geomean	0.527	1.50
45S	UA	E004	Selenium, total	mg/L	12/09/15 - 01/25/24	27	100	All ND - Last	0.0025	0.00140
45S	UA	E004	Sulfate, total	mg/L	12/09/15 - 01/25/24	29	0	CI around median	70	215
45S	UA	E004	Thallium, total	mg/L	12/09/15 - 01/25/24	25	100	All ND - Last	0.002	0.001
45S	UA	E004	Total Dissolved Solids	mg/L	12/09/15 - 01/25/24	29	0	CI around mean	526	1,620

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 1, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value
HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

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

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

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

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

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

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
03R	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.001
03R	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	100	All ND - Last	0.001	0.001
03R	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CI around geomean	0.0621	0.212
03R	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.001
03R	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	0.42	0.163
03R	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	93	CB around T-S line	0.000641	0.00230
03R	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	77.5	435
03R	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	27	93	CB around T-S line	0.0015	0.00100
03R	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	28	96	CI around median	0.001	0.0380
03R	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CI around median	0.27	0.120
03R	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	100	All ND - Last	0.0005	0.00150
03R	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	32	0	CI around mean	0.0235	0.0190
03R	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.0002
03R	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	0.0778	0.00170
03R	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	36	0	CI around median	7.2/7.3	6.6/7.5
03R	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around median	0.28	1.50
03R	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	29	7	CI around mean	0.00459	0.00140
03R	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	72.1	215
03R	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.001
03R	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	33	0	CI around mean	513	1,620
18S	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.001
18S	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	97	CI around median	0.001	0.001
18S	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.051	0.212
18S	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.001
18S	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	0.75	0.163
18S	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	78	CB around T-S line	0.000583	0.00230
18S	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	33	0	CB around linear reg	68.9	435

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18S	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	28	59	CI around median	0.0015	0.00100
18S	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	28	84	CI around median	0.001	0.0380
18S	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CB around T-S line	0.163	0.120
18S	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	100	All ND - Last	0.0005	0.00150
18S	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	32	0	CB around T-S line	0.0326	0.0190
18S	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.0002
18S	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	0.0857	0.00170
18S	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	36	0	CI around median	7.3/7.4	6.6/7.5
18S	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around mean	0.357	1.50
18S	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	29	3	CB around T-S line	0.00449	0.00140
18S	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	81.7	215
18S	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.001
18S	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	481	1,620
18D	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.001
18D	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	97	CI around median	0.001	0.001
18D	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around T-S line	0.0625	0.212
18D	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.001
18D	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	33	0	CB around linear reg	1.16	0.163
18D	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	94	CB around T-S line	0.000836	0.00230
18D	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	33	0	CI around mean	75.8	435
18D	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	27	94	CB around T-S line	0.0015	0.00100
18D	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	29	3	CB around linear reg	6.72e-06	0.0380
18D	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CI around median	0.15	0.120
18D	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	90	CI around median	0.001	0.00150
18D	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	32	0	CB around linear reg	0.0231	0.0190
18D	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.0002
18D	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	32	0	CI around median	0.0315	0.00170

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18D	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	36	0	CI around median	7.2/7.2	6.6/7.5
18D	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around mean	0.555	1.50
18D	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	28	94	CB around T-S line	0.001	0.00140
18D	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	33	0	CB around linear reg	86.1	215
18D	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.001
18D	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	33	0	CB around T-S line	475	1,620
45S	UA	E005	Antimony, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.003	0.001
45S	UA	E005	Arsenic, total	mg/L	12/09/15 - 04/15/24	27	93	CI around median	0.001	0.001
45S	UA	E005	Barium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.0792	0.212
45S	UA	E005	Beryllium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.001	0.001
45S	UA	E005	Boron, total	mg/L	12/09/15 - 04/15/24	30	0	CB around linear reg	0.214	0.163
45S	UA	E005	Cadmium, total	mg/L	12/09/15 - 04/15/24	28	43	CB around linear reg	0.00057	0.00230
45S	UA	E005	Chloride, total	mg/L	12/09/15 - 04/15/24	30	0	CB around linear reg	86.1	435
45S	UA	E005	Chromium, total	mg/L	12/09/15 - 04/15/24	28	93	CB around T-S line	0.0015	0.00100
45S	UA	E005	Cobalt, total	mg/L	12/09/15 - 04/15/24	29	14	CI around geomean	0.0014	0.0380
45S	UA	E005	Fluoride, total	mg/L	12/09/15 - 04/15/24	30	3	CB around T-S line	0.244	0.120
45S	UA	E005	Lead, total	mg/L	12/09/15 - 04/15/24	27	78	CI around median	0.001	0.00150
45S	UA	E005	Lithium, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.011	0.0190
45S	UA	E005	Mercury, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.0002	0.0002
45S	UA	E005	Molybdenum, total	mg/L	12/09/15 - 04/15/24	29	0	CB around linear reg	0.0415	0.00170
45S	UA	E005	pH (field)	SU	12/09/15 - 04/15/24	30	0	CI around mean	7.1/7.2	6.6/7.5
45S	UA	E005	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 04/15/24	27	0	CI around geomean	0.516	1.50
45S	UA	E005	Selenium, total	mg/L	12/09/15 - 04/15/24	28	100	All ND - Last	0.0025	0.00140
45S	UA	E005	Sulfate, total	mg/L	12/09/15 - 04/15/24	30	0	CI around median	70	215
45S	UA	E005	Thallium, total	mg/L	12/09/15 - 04/15/24	26	100	All ND - Last	0.002	0.001
45S	UA	E005	Total Dissolved Solids	mg/L	12/09/15 - 04/15/24	30	0	CI around mean	526	1,620

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 2, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value
HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

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

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

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

CB around linear reg = Confidence band around linear regression

CI around geomean = Confidence interval around the geometric mean

CI around mean = Confidence interval around the mean

CI around median = Confidence interval around the median

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

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
03R	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.001
03R	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	100	All ND - Last	0.001	0.001
03R	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CI around geomean	0.0623	0.212
03R	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.001
03R	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	0.428	0.163
03R	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	93	CB around T-S line	0.000615	0.00230
03R	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	76.5	435
03R	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	28	93	CB around T-S line	0.0015	0.00100
03R	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	29	97	CI around median	0.001	0.0380
03R	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CI around median	0.27	0.120
03R	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	100	All ND - Last	0.0005	0.00150
03R	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	33	0	CI around mean	0.0234	0.0190
03R	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.0002
03R	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	0.0731	0.00170
03R	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	37	0	CI around median	7.2/7.3	6.6/7.5
03R	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around median	0.27	1.50
03R	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	30	7	CI around mean	0.00472	0.00140
03R	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	73	215
03R	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.001
03R	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	34	0	CI around mean	514	1,620
18S	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.001
18S	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	97	CI around median	0.001	0.001
18S	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.051	0.212
18S	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.001
18S	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	1.06	0.163
18S	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	79	CB around T-S line	0.000562	0.00230
18S	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	34	0	CB around linear reg	68.9	435

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18S	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	29	61	CI around median	0.0015	0.00100
18S	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	29	85	CI around median	0.001	0.0380
18S	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CB around T-S line	0.167	0.120
18S	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	100	All ND - Last	0.0005	0.00150
18S	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	33	0	CB around T-S line	0.0333	0.0190
18S	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.0002
18S	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	0.0828	0.00170
18S	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	37	0	CI around median	7.3/7.4	6.6/7.5
18S	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around mean	0.352	1.50
18S	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	30	3	CB around T-S line	0.00454	0.00140
18S	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	81.8	215
18S	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.001
18S	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	34	0	CI around geomean	569	1,620
18D	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.001
18D	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	97	CI around median	0.001	0.001
18D	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around T-S line	0.0625	0.212
18D	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.001
18D	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	34	0	CB around linear reg	1.14	0.163
18D	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	94	CB around T-S line	0.000803	0.00230
18D	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	34	0	CI around mean	75.8	435
18D	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	28	94	CB around T-S line	0.0015	0.00100
18D	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	30	3	CB around linear reg	-0.000149	0.0380
18D	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CI around median	0.15	0.120
18D	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	91	CB around T-S line	0.000905	0.00150
18D	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	33	0	CB around linear reg	0.0227	0.0190
18D	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.0002
18D	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	33	0	CI around median	0.0315	0.00170

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18D	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	37	0	CI around median	7.2/7.2	6.6/7.5
18D	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around mean	0.55	1.50
18D	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	29	94	CB around T-S line	0.001	0.00140
18D	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	34	0	CB around linear reg	85.9	215
18D	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.001
18D	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	34	0	CB around T-S line	477	1,620
45S	UA	E006	Antimony, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.003	0.001
45S	UA	E006	Arsenic, total	mg/L	12/09/15 - 07/16/24	28	93	CI around median	0.001	0.001
45S	UA	E006	Barium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.0799	0.212
45S	UA	E006	Beryllium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.001	0.001
45S	UA	E006	Boron, total	mg/L	12/09/15 - 07/16/24	31	0	CB around linear reg	0.218	0.163
45S	UA	E006	Cadmium, total	mg/L	12/09/15 - 07/16/24	29	41	CB around linear reg	0.000587	0.00230
45S	UA	E006	Chloride, total	mg/L	12/09/15 - 07/16/24	31	0	CB around linear reg	87.1	435
45S	UA	E006	Chromium, total	mg/L	12/09/15 - 07/16/24	29	93	CB around T-S line	0.0015	0.00100
45S	UA	E006	Cobalt, total	mg/L	12/09/15 - 07/16/24	30	13	CI around geomean	0.00142	0.0380
45S	UA	E006	Fluoride, total	mg/L	12/09/15 - 07/16/24	31	3	CB around T-S line	0.242	0.120
45S	UA	E006	Lead, total	mg/L	12/09/15 - 07/16/24	28	79	CI around median	0.001	0.00150
45S	UA	E006	Lithium, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.0109	0.0190
45S	UA	E006	Mercury, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.0002	0.0002
45S	UA	E006	Molybdenum, total	mg/L	12/09/15 - 07/16/24	30	0	CB around linear reg	0.0405	0.00170
45S	UA	E006	pH (field)	SU	12/09/15 - 07/16/24	31	0	CI around mean	7.1/7.2	6.6/7.5
45S	UA	E006	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 07/16/24	28	0	CI around geomean	0.508	1.50
45S	UA	E006	Selenium, total	mg/L	12/09/15 - 07/16/24	29	100	All ND - Last	0.0025	0.00140
45S	UA	E006	Sulfate, total	mg/L	12/09/15 - 07/16/24	31	0	CI around median	70	215
45S	UA	E006	Thallium, total	mg/L	12/09/15 - 07/16/24	27	100	All ND - Last	0.002	0.001
45S	UA	E006	Total Dissolved Solids	mg/L	12/09/15 - 07/16/24	31	0	CI around mean	528	1,620

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 3, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:
Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value
HSU = hydrostratigraphic unit:
UA = Uppermost Aquifer
mg/L = milligrams per liter
Missing Code (if applicable):
NR[1] = Select parameters were not analyzed.
NS[1] = This well has been, or will be, abandoned; therefore, a sample was not collected.
NS[2] = Well either needs or was undergoing maintenance, therefore, a sample was not collected.
NS[3] = A sample was not collected because the location was inaccessible.
NS[4] = The location could not be found, therefore a sample was not collected.
NS[5] = A sample was not collected because of damage to the well.
NS[6] = A sample was not collected because of pump issues.
NS[7] = A sample was not collected because the well was either dry or was purged dry and did not recover.
PM[1] = Select parameters were not analyzed as the well purged dry during sample collection and did not sufficiently recover to sample for all parameters.
ND = non-detect
pCi/L = picocuries per liter
SU = standard units
Sample Count = number of samples from Sampled Date Range used to calculate the Statistical Result
Statistical Calculation = method used to calculate the statistical result:
All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown
CB around T-S line = Confidence band around Thiel-Sen line
CB around linear reg = Confidence band around linear regression
CI around geomean = Confidence interval around the geometric mean
CI around mean = Confidence interval around the mean
CI around median = Confidence interval around the median
Statistical Result = calculated in accordance with the Statistical Analysis Plan using constituent concentrations observed at each monitoring well during all sampling events within the specified date range
For pH, the values presented are the lower / upper limits of the background determination

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
03R	UA	E007	Antimony, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.003	0.001
03R	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/09/24	29	100	All ND - Last	0.001	0.001
03R	UA	E007	Barium, total	mg/L	12/09/15 - 10/09/24	31	0	CI around mean	0.062	0.212
03R	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.001	0.001
03R	UA	E007	Boron, total	mg/L	12/09/15 - 10/09/24	35	0	CB around T-S line	0.356	0.163
03R	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/09/24	30	93	CB around T-S line	0.000596	0.00230
03R	UA	E007	Chloride, total	mg/L	12/09/15 - 10/09/24	35	0	CI around geomean	71.3	435
03R	UA	E007	Chromium, total	mg/L	12/09/15 - 10/09/24	29	93	CB around T-S line	0.0015	0.00100
03R	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/09/24	30	97	CI around median	0.001	0.0380
03R	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/09/24	32	3	CI around median	0.27	0.120
03R	UA	E007	Lead, total	mg/L	12/09/15 - 10/09/24	29	100	All ND - Last	0.0005	0.00150
03R	UA	E007	Lithium, total	mg/L	12/09/15 - 10/09/24	34	0	CI around mean	0.0232	0.0190
03R	UA	E007	Mercury, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.0002	0.0002
03R	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/09/24	34	0	CB around linear reg	0.0683	0.00170
03R	UA	E007	pH (field)	SU	12/09/15 - 10/09/24	38	0	CB around T-S line	7.1/7.2	6.6/7.5
03R	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/09/24	29	0	CI around median	0.28	1.50
03R	UA	E007	Selenium, total	mg/L	12/09/15 - 10/09/24	31	6	CI around mean	0.00472	0.00140
03R	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/09/24	34	0	CB around linear reg	71.8	215
03R	UA	E007	Thallium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.002	0.001
03R	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/09/24	35	0	CI around mean	514	1,620
18S	UA	E007	Antimony, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.003	0.001
18S	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/08/24	29	97	CI around median	0.001	0.001
18S	UA	E007	Barium, total	mg/L	12/09/15 - 10/08/24	31	0	CB around linear reg	0.0507	0.212
18S	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.001	0.001
18S	UA	E007	Boron, total	mg/L	12/09/15 - 10/08/24	35	0	CB around T-S line	1.15	0.163
18S	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/08/24	30	79	CB around T-S line	0.000586	0.00230
18S	UA	E007	Chloride, total	mg/L	12/09/15 - 10/08/24	35	0	CB around linear reg	67.8	435

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18S	UA	E007	Chromium, total	mg/L	12/09/15 - 10/08/24	30	62	CB around T-S line	0.0015	0.00100
18S	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/08/24	30	85	CI around median	0.001	0.0380
18S	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/08/24	32	3	CB around T-S line	0.168	0.120
18S	UA	E007	Lead, total	mg/L	12/09/15 - 10/08/24	29	100	All ND - Last	0.0005	0.00150
18S	UA	E007	Lithium, total	mg/L	12/09/15 - 10/08/24	34	0	CB around T-S line	0.0333	0.0190
18S	UA	E007	Mercury, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.0002	0.0002
18S	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/08/24	34	0	CB around linear reg	0.081	0.00170
18S	UA	E007	pH (field)	SU	12/09/15 - 10/08/24	38	0	CI around median	7.3/7.4	6.6/7.5
18S	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/08/24	29	0	CI around mean	0.356	1.50
18S	UA	E007	Selenium, total	mg/L	12/09/15 - 10/08/24	31	3	CB around T-S line	0.00105	0.00140
18S	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/08/24	35	0	CB around T-S line	85.2	215
18S	UA	E007	Thallium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.002	0.001
18S	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/08/24	35	0	CI around geomean	568	1,620
18D	UA	E007	Antimony, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.003	0.001
18D	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/08/24	29	97	CI around median	0.001	0.001
18D	UA	E007	Barium, total	mg/L	12/09/15 - 10/08/24	31	0	CB around T-S line	0.0618	0.212
18D	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.001	0.001
18D	UA	E007	Boron, total	mg/L	12/09/15 - 10/08/24	35	0	CB around linear reg	1.12	0.163
18D	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/08/24	30	94	CB around T-S line	0.000765	0.00230
18D	UA	E007	Chloride, total	mg/L	12/09/15 - 10/08/24	35	0	CI around mean	75.4	435
18D	UA	E007	Chromium, total	mg/L	12/09/15 - 10/08/24	29	94	CB around T-S line	0.0015	0.00100
18D	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/08/24	31	3	CB around linear reg	-0.000248	0.0380
18D	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/08/24	32	3	CI around median	0.15	0.120
18D	UA	E007	Lead, total	mg/L	12/09/15 - 10/08/24	29	91	CB around T-S line	0.000827	0.00150
18D	UA	E007	Lithium, total	mg/L	12/09/15 - 10/08/24	34	0	CB around linear reg	0.0225	0.0190
18D	UA	E007	Mercury, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.0002	0.0002
18D	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/08/24	34	0	CI around median	0.0315	0.00170

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Well ID	HSU	Event	Parameter	Units	Date Range	Sample Count	Percent ND	Statistical Calculation	Statistical Result	Background
18D	UA	E007	pH (field)	SU	12/09/15 - 10/08/24	38	0	CI around median	7.1/7.2	6.6/7.5
18D	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/08/24	29	0	CI around mean	0.575	1.50
18D	UA	E007	Selenium, total	mg/L	12/09/15 - 10/08/24	30	94	CB around T-S line	0.001	0.00140
18D	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/08/24	35	0	CB around linear reg	86.5	215
18D	UA	E007	Thallium, total	mg/L	12/09/15 - 10/08/24	28	100	All ND - Last	0.002	0.001
18D	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/08/24	35	0	CB around T-S line	469	1,620
45S	UA	E007	Antimony, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.003	0.001
45S	UA	E007	Arsenic, total	mg/L	12/09/15 - 10/09/24	29	93	CI around median	0.001	0.001
45S	UA	E007	Barium, total	mg/L	12/09/15 - 10/09/24	31	0	CB around linear reg	0.0783	0.212
45S	UA	E007	Beryllium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.001	0.001
45S	UA	E007	Boron, total	mg/L	12/09/15 - 10/09/24	32	0	CB around linear reg	0.22	0.163
45S	UA	E007	Cadmium, total	mg/L	12/09/15 - 10/09/24	30	40	CB around linear reg	0.000582	0.00230
45S	UA	E007	Chloride, total	mg/L	12/09/15 - 10/09/24	32	0	CI around mean	81.2	435
45S	UA	E007	Chromium, total	mg/L	12/09/15 - 10/09/24	30	93	CB around T-S line	0.0015	0.00100
45S	UA	E007	Cobalt, total	mg/L	12/09/15 - 10/09/24	31	13	CI around geomean	0.00142	0.0380
45S	UA	E007	Fluoride, total	mg/L	12/09/15 - 10/09/24	32	3	CB around T-S line	0.241	0.120
45S	UA	E007	Lead, total	mg/L	12/09/15 - 10/09/24	29	79	CI around median	0.001	0.00150
45S	UA	E007	Lithium, total	mg/L	12/09/15 - 10/09/24	31	0	CB around linear reg	0.0108	0.0190
45S	UA	E007	Mercury, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.0002	0.0002
45S	UA	E007	Molybdenum, total	mg/L	12/09/15 - 10/09/24	31	0	CB around linear reg	0.0396	0.00170
45S	UA	E007	pH (field)	SU	12/09/15 - 10/09/24	32	0	CI around mean	7.1/7.2	6.6/7.5
45S	UA	E007	Radium 226 + Radium 228, total	pCi/L	12/09/15 - 10/09/24	29	0	CI around geomean	0.457	1.50
45S	UA	E007	Selenium, total	mg/L	12/09/15 - 10/09/24	30	100	All ND - Last	0.0025	0.00140
45S	UA	E007	Sulfate, total	mg/L	12/09/15 - 10/09/24	32	0	CI around median	70	215
45S	UA	E007	Thallium, total	mg/L	12/09/15 - 10/09/24	28	100	All ND - Last	0.002	0.001
45S	UA	E007	Total Dissolved Solids	mg/L	12/09/15 - 10/09/24	32	0	CI around mean	527	1,620

ATTACHMENT B.
COMPARISON TO BACKGROUND - QUARTER 4, 2024
845 QUARTERLY REPORT
HENNEPIN POWER PLANT
ASH POND NO. 2 AND ASH POND NO. 4
HENNEPIN, IL

Notes:

Lower Confidence Limit (LCL) or Upper Confidence Limit (UCL) exceeded the statistical background value

Throughout this document, "exceedance" or "exceedances" is intended to refer only to potential exceedances of proposed applicable background statistics or Groundwater Protection Standards (GWPSs) as described in the proposed groundwater monitoring program which was submitted to the Illinois Environmental Protection Agency (IEPA) on October 25, 2021 as part of Dynegy Midwest Generation, LLC's (DMG's) operating permit application for the Ash Pond No. 2 and Ash Pond No. 4. That operating permit application, including the proposed groundwater monitoring program, remains under review by the IEPA and, therefore, DMG has not identified any actual exceedances.

Events:

E007 = Quarter 4, 2024 sampling event

HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

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

All ND - Last = All results were below the reporting limit, and the last determined reporting limit is shown
CB around T-S line = Confidence band around Thiel-Sen line
CB around T-S line = Confidence band around Thiel-Sen line
CB around linear reg = Confidence band around linear regression
CI around geomean = Confidence interval around the geometric mean
CI around mean = Confidence interval around the mean
CI around median = Confidence interval around the median

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

NR[1] = Parameter not analyzed.
NS[1] = Well has been, or will be, abandoned; therefore, a sample was not collected.
NS[2] = Well either needs or was undergoing maintenance; therefore, a sample was not collected.
NS[3] = The location was not accessible; therefore, a sample was not collected.
NS[4] = The location could not be found; therefore, a sample was not collected.
NS[5] = The location was damaged; therefore, a sample was not collected.
NS[6] = Sampling pump could not yield a sample.
NS[7] = Well was either dry or purged dry and did not recover sufficiently to yield adequate volume for a sample.
NS[8] = A sample was not collected.
PM[1] = Parameter not analyzed as the well purged dry during sample collection and did not sufficiently recover to yield adequate sample volume for analysis.

For pH, the values presented are the lower / upper limits of the background determination