Prepared for
We Energies

Date
January 31, 2025

Project No.
1940102327

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

PRESQUE ISLE POWER PLANT

ASH LANDFILL NO. 3

RAMBOLL Bright ideas. Sustainable change.

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT PRESQUE ISLE POWER PLANT ASH LANDFILL NO. 3

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Project no.	**1940102327**
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ACRONYMS AND ABBREVIATIONS

§	Section
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternate Source Demonstration
CCR	Coal Combustion Residuals
GWPS	groundwater protection standard
NA	not applicable
No.	number
PIPP	Presque Isle Power Plant
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Sampling and Analysis Plan
SSI	Statistically Significant Increase
TBD	To be Determined

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) Section (§) 257.90(e) for the Ash Landfill located at the Presque Isle Power Plant (PIPP) in Marquette, Michigan.

Groundwater is being monitored at PIPP Ash Landfill Number (No.) 3 in accordance with the Detection Monitoring Program requirements specified in 40 C.F.R. § 257.94.

No changes were made to the monitoring system in 2024 (no wells were installed or decommissioned).

In 2024, groundwater analytical data was evaluated for statistically significant increases (SSIs) over background concentrations for 40 C.F.R. § 257 Appendix III constituents in groundwater monitoring wells at PIPP Ash Landfill No. 3. The following constituents and wells had SSIs reported in 2024:

- Calcium (Ca) at wells MW70, MW79, MW80PR, and MW95
- pH at well MW80PR
- Total Dissolved Solids (TDS) at well MW80PR

Alternate Source Demonstrations (ASDs) prepared in prior years for these parameters and monitoring locations provide lines of evidence that the SSIs observed during the Detection Monitoring Program were not due to a release from PIPP Ash Landfill No. 3 but were either from an error in sampling or analysis or from naturally occurring conditions (*e.g.,* natural variation in groundwater quality).

PIPP Ash Landfill No. 3 remains in the Detection Monitoring Program in accordance with 40 C.F.R. § 257.94.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of We Energies, to provide the information required by 40 C.F.R. § 257.90(e) for the PIPP Ash Landfill No. 3 located in Marquette, Michigan.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a coal combustion residuals (CCR) unit must prepare an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year that documents the status of the Groundwater Monitoring and Corrective Action Program for the CCR unit (**Section 2**), summarizes key actions completed (**Section 3**), describes any problems encountered, discusses actions to resolve the problems (**Section 4**), and projects key activities for the upcoming year (**Section 5**). At a minimum, the annual report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit (**Figure 1**).
2. 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)**.
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98 (**Tables 1 and 2**), a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the Detection Monitoring or Assessment Monitoring Programs (**Section 3 and Table A**).
4. A narrative discussion of any transition between monitoring programs (*e.g.*, the date and circumstances for transitioning from Detection Monitoring to Assessment Monitoring (**Section 2**) in addition to identifying the constituent(s) detected at a statistically significant increase relative to background levels) (**Table A**).
5. Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.
6. A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit (**Executive Summary**). At a minimum, the summary must specify all of the following:
    i. At the start of the current annual reporting period, whether the CCR unit was operating under the Detection Monitoring Program in § 257.94 or the Assessment Monitoring Program in § 257.95.
    ii. At the end of the current annual reporting period, whether the CCR unit was operating under the Detection Monitoring Program in § 257.94 or the Assessment Monitoring Program in § 257.95.
    iii. If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III of § 257 pursuant to § 257.94(e):

A. Identify those constituents listed in Appendix III of § 257 and the names of the monitoring wells associated with such an increase.

B. Provide the date when the Assessment Monitoring Program was initiated for the CCR unit.

iv. If it was determined that there was a statistically significant level above the groundwater protection standard [GWPS] for one or more constituents listed in Appendix IV of § 257 pursuant to § 257.95(g) include all of the following:

A. Identify those constituents listed in Appendix IV of § 257 and the names of the monitoring wells associated with such an increase.

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

C. Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.

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

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

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

This report provides the required information for PIPP Ash Landfill No. 3 for calendar year 2024.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the monitoring program status in calendar year 2024 and PIPP Ash Landfill No. 3 remains in the Detection Monitoring Program in accordance with 40 C.F.R. § 257.94.

3. KEY ACTIONS COMPLETED IN 2024

The Detection Monitoring Program is summarized in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background (upgradient) and downgradient monitoring wells, is presented in **Figure 1**. No changes were made to the monitoring system in 2024.

In general, one groundwater sample was collected from each background and downgradient well during each monitoring event. All samples were collected and analyzed in accordance with the Sampling and Analysis Plan – Revision 1 (SAP; Natural Resource Technology, Inc., 2015). Potentiometric surface maps for the fourth quarter of 2023 and both monitoring events in 2024 are included in **Figures 2 through 4**. Water level data, collected from background and downgradient monitoring wells, are included in **Table 1**. All monitoring data and analytical results obtained under 40 C.F.R. §§ 257.90 through 257.98 (as applicable) in the fourth quarter of 2023 and both monitoring events in 2024 are presented in **Table 2**. Laboratory reports for both 2024 monitoring events are included in **Appendix A**[1]. Results for analysis of additional samples required by Ch. NR 507 Wisconsin Administrative Code are included in some reports because they were collected during the same sampling events, but are not summarized in this report.

Analytical data were evaluated in accordance with the Statistical Analysis Plan (Natural Resource Technology, Inc., an OBG Company, 2017) to determine any SSIs of Appendix III parameters relative to background concentrations. Statistical background values are provided in **Table 3**. A flow chart showing the statistical methodology for determination of background values is included as **Appendix B**.

Statistical evaluation, including SSI determinations, of analytical data from the Detection Monitoring Program for the November 14-15, 2023 (Detection Monitoring Round 13) and May 22, 2024 (Detection Monitoring Round 14) sampling events were completed in 2024 and within 90 days of receipt of the analytical data. The SSIs determined in 2024 were also determined in previous sampling events. Potential alternate sources and natural variation were evaluated following those previous sampling events as outlined in the 40 C.F.R. § 257.94(e)(2). ASDs were completed and certified by a qualified professional engineer. The dates ASDs were completed are provided in the notes of **Table A**.

[1] Laboratory reports for the fourth quarter of 2023 monitoring event were provided in the 2023 annual report.

Table A. 2023-2024 Detection Monitoring Program Summary

Detection Round	Sampling Date	Analytical Data Receipt Date	Parameters Collected	SSI Wells (Parameters)	SSI(s) Determination Date	ASD Completion Date [1]
13	November 14-15, 2023	January 4, 2024	Appendix III	MW70 (Calcium) MW80PR (Calcium and TDS)	April 3, 2024	NA
14	May 22, 2024	July 3, 2024	Appendix III	MW70 (Calcium) MW79 (Calcium) MW80PR (Calcium, pH and TDS) MW95 (Calcium)	October 1, 2024	NA
15	November 20, 2024	January 15, 2024	Appendix III	TBD	TBD before April 15, 2025	TBD

Notes:

ASD: Alternate Source Demonstration

NA: not applicable

SSI: statistically significant increase

[1] The ASD previously completed on April 15, 2018 for the PIPP Ash Landfill No. 3 provided a description, data, and pertinent information supporting an alternate source for the wells and parameters with SSIs during the November 14-15, 2023 and May 22, 2024 sampling events.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the Groundwater Monitoring Program during 2024. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2025

The following key activities are planned for 2025:

- Continuation of the Detection Monitoring Program with semi-annual sampling scheduled for the second and fourth quarters of 2025.
- Complete evaluation of analytical data from the downgradient wells using background data to determine whether an SSI of Appendix III parameters detected at concentrations greater than background concentrations has occurred.
- If an SSI is identified, potential alternate sources (*i.e.,* a source other than the CCR unit caused the SSI or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated.
  - If an alternate source is identified to be the cause of the SSI, a written demonstration will be completed within 90 days of SSI determination and included in the 2025 Annual Groundwater Monitoring and Corrective Action Report.
  - If an alternate source(s) is not identified to be the cause of the SSI, the applicable requirements of 40 C.F.R. §§ 257.94 through 257.98 as may apply in 2025 (*e.g.,* Assessment Monitoring) will be met, including associated recordkeeping/notifications required by 40 C.F.R. §§ 257.105 through 257.108.

6. REFERENCES

Natural Resource Technology, Inc., 2015, *Sampling and Analysis Plan-Revision 1, Presque Isle Power Plant Ash Landfill No. 3, Marquette, Michigan, December 8, 2015.*

Natural Resource Technology, an OBG Company, 2017, *Statistical Analysis Plan, Presque Isle Power Plant Ash Landfill No. 3, Marquette, Michigan, October 17, 2017.*

TABLES

Presque Isle-CCR
Table 1. Groundwater Elevations

Date Range: 11/01/2023 to 12/31/2024

Well Id	Date Sampled	Lab Id	GW Elv, ft
MW70	11/15/2023	AE70340	822.08
	05/22/2024	AE73351	822.08
	11/20/2024	AE76248	820.05
MW79	11/15/2023	AE70335	820.71
	05/22/2024	AE73352	819.54
	11/20/2024	AE76249	818.04
MW80PR	11/15/2023	AE70334	818.04
	05/22/2024	AE73353	818.17
	11/20/2024	AE76250	816.38
MW85	11/15/2023	AE70337	823.48
	05/22/2024	AE73354	823.32
	11/20/2024	AE76251	821.25
MW86	11/15/2023	AE70338	858.46
	05/22/2024	AE73355	856.96
	11/20/2024	AE76252	858.03
MW87	11/15/2023	AE70339	821.44
	05/22/2024	AE73356	824.45
	11/20/2024	AE76253	819.05
MW95	11/15/2023	AE70336	821.70
	05/22/2024	AE73357	821.19
	11/20/2024	AE76254	820.18

Presque Isle-CCR
Table 2. Analytical Results - Appendix III Parameters

Date Range: 11/01/2023 to 12/31/2024

Lab Methods:

Well Id	Date Sampled	Lab Id	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
MW70	11/15/2023	AE70340	0.0099	21.4000	<3.00	<0.48	7.4	3.7
	5/22/2024	AE73351	0.0185	24.5000	0.75	<0.10	7.6	7.2
	11/20/2024	AE76248	0.0230	20.5000	0.87	<0.10	7.5	3.6
MW79	11/15/2023	AE70335	0.0194	11.4000	<3.00	<0.48	5.9	2.4
	5/22/2024	AE73352	<0.0173	38.7000	0.74	<0.10	6.1	2.7
	11/20/2024	AE76249	0.0291	18.0000	0.84	<0.10	6.3	5.8
MW80PR	11/15/2023	AE70334	0.0111	47.8000	4.70	<0.48	7.8	5.5
	5/22/2024	AE73353	<0.0173	48.5000	3.00	<0.10	7.9	4.8
	11/20/2024	AE76250	0.0163	44.0000	3.00	<0.10	7.8	4.3
MW85	11/15/2023	AE70337	0.0123	7.2100	<3.00	<0.48	6.4	2.5
	5/22/2024	AE73354	0.0201	5.1700	0.81	<0.10	6.4	2.3
	11/20/2024	AE76251	0.0153	4.8500	0.84	<0.10	6.5	2.6
MW86	11/15/2023	AE70338	0.0130	8.0100	3.30	<0.48	6.0	<2.2
	5/22/2024	AE73355	<0.0173	3.2400	0.94	<0.10	6.2	<0.4
	11/20/2024	AE76252	0.0136	9.7900	3.80	<0.48	6.2	<2.2
MW87	11/15/2023	AE70339	0.1870	11.1000	<3.00	<0.48	6.9	10.5
	5/22/2024	AE73356	0.0328	9.4300	0.98	<0.10	6.9	5.5
	11/20/2024	AE76253	0.0641	12.0000	1.20	<0.10	7.1	6.2
MW95	11/15/2023	AE70336	0.0233	6.8200	<3.00	<0.48	6.0	3.2
	5/22/2024	AE73357	0.0279	29.9000	0.68	<0.10	7.6	2.6
	11/20/2024	AE76254	0.0239	28.0000	0.85	<0.10	7.8	2.7

Presque Isle-CCR
Table 2. Analytical Results - Appendix III Parameters

Date Range: 11/01/2023 to 12/31/2024

Lab Methods:

Well Id	Date Sampled	Lab Id	TDS, mg/L
MW70	11/15/2023	AE70340	64.0
	5/22/2024	AE73351	116.0
	11/20/2024	AE76248	50.0
MW79	11/15/2023	AE70335	42.0
	5/22/2024	AE73352	132.0
	11/20/2024	AE76249	60.0
MW80PR	11/15/2023	AE70334	222.0
	5/22/2024	AE73353	158.0
	11/20/2024	AE76250	134.0
MW85	11/15/2023	AE70337	28.0
	5/22/2024	AE73354	36.0
	11/20/2024	AE76251	10.0
MW86	11/15/2023	AE70338	156.0
	5/22/2024	AE73355	88.0
	11/20/2024	AE76252	118.0
MW87	11/15/2023	AE70339	74.0
	5/22/2024	AE73356	58.0
	11/20/2024	AE76253	66.0
MW95	11/15/2023	AE70336	38.0
	5/22/2024	AE73357	122.0
	11/20/2024	AE76254	82.0

Notes:

Exceedance of Background

TABLE 3
STATISTICAL BACKGROUND VALUES
2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PRESQUE ISLE POWER PLANT
ASH LANDFILL NO. 3
PRESQUE ISLE, MICHIGAN

Parameter	Date Range	Sample Count	Percent Non-Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Boron (mg/L)	11/4/2015 – 08/08/2017	24	0	Non-parametric UPL	0.28
Calcium (mg/L)	11/4/2015 – 08/08/2017	24	0	Parametric UPL	16.5
Chloride (mg/L)	11/4/2015 – 08/08/2017	24	8.33	Parametric UPL	8.53
Fluoride (mg/L)	11/4/2015 – 08/08/2017	24	95.83	Non-parametric UPL	0.12
pH (field) (SU)	11/4/2015 – 08/08/2017	24	0	Parametric LPL/UPL	5.2/7.8
Sulfate (mg/L)	11/4/2015 – 08/08/2017	24	20.83	Parametric UPL	11.4
Total Dissolved Solids (mg/L)	11/4/2015 – 08/08/2017	24	0	Parametric UPL	144

Notes:
LPL = lower prediction limit (applicable for pH only)
mg/L = milligrams per liter
SU = standard units
TBD = to be determined (following collection of background data)
UPL = upper prediction limit

FIGURES

Y:\GIS\Projects\16\1660\MXD\2020Annual_GWM_CAR\Figure 1_GW Samp Well Loc_PIPP_LF3.mxd

PROJECT: 71202 | DATED: 12/10/2020 | DESIGNER: STOLZSD

DOWNGRADIENT MONITORING WELL LOCATION

UPGRADIENT MONITORING WELL LOCATION

LANDFILL NO. 3

0 200 400 Feet

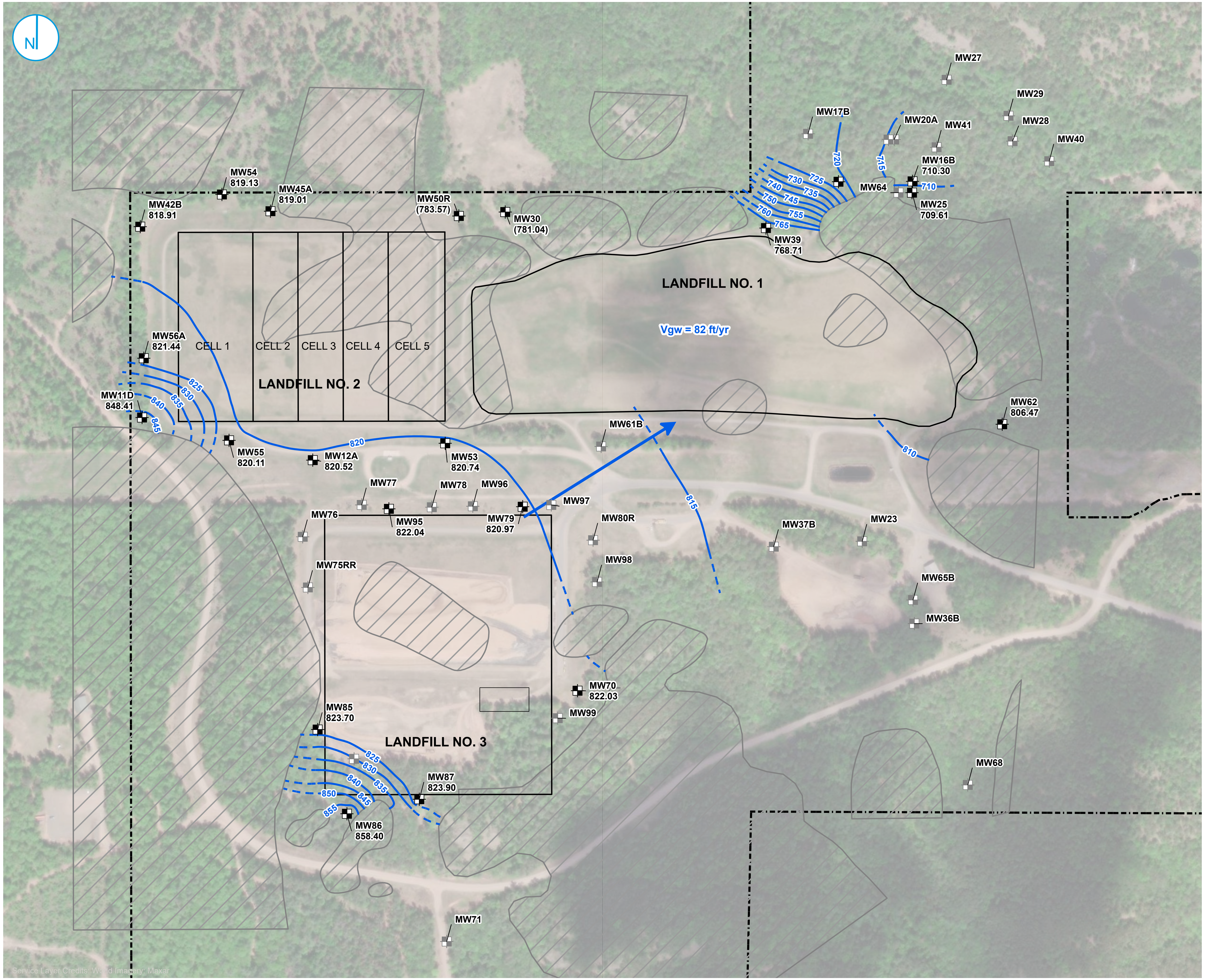
MONITORING WELL LOCATION MAP

2024 ANNUAL GROUNDWATER MONIORING AND CORRECTIVE ACTION REPORT
PRESQUE ISLE POWER PLANT
ASH LANDFILL NO. 3
MARQUETTE COUNTY, MICHIGAN

FIGURE 1

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL



GROUNDWATER MONITORING WELL
ABANDONED MONITORING WELL
GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL)
INFERRED GROUNDWATER ELEVATION CONTOUR
GROUNDWATER FLOW DIRECTION
INFERRED ZONES WHERE THE GLACIAL DRIFT AQUIFER IS NOT PRESENT
LANDFILL BOUNDARY
PROPERTY BOUNDARY

Notes
ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING
Vgw = ESTIMATED FT/YR GROUNDWATER FLOW VELOCITY

0 200 400 Feet

WATER TABLE ELEVATION CONTOURS
NOVEMBER 14-15, 2023

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PRESQUE ISLE POWER PLANT
ASH LANDFILL NO. 3
MARQUETTE COUNTY, MICHIGAN

FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

RAMBOLL

Y:\GIS\Projects\16\1660\MXD\2023 GW Contour Maps.aprx
PROJECT: 169000XXXX | DATED: 1/19/2024 | DESIGNER: egreaves

GROUNDWATER AVERAGE LINEAR VELOCITY CALCULATIONS

PRESQUE ISLE POWER PLANT ASH LANDFILLS

MARQUETTE, MICHIGAN

NOVEMBER 2023 **$V = K\ i\ /\ n_e$**

V = Groundwater Velocity

K = Hydraulic Conductivity

i = Hydraulic Gradient (unitless value)

n_e = Effective Porosity

WATER TABLE *(some contours are not shown on flow maps)*

Contours **820** **to** **815** **Northeast of Landfill 3**

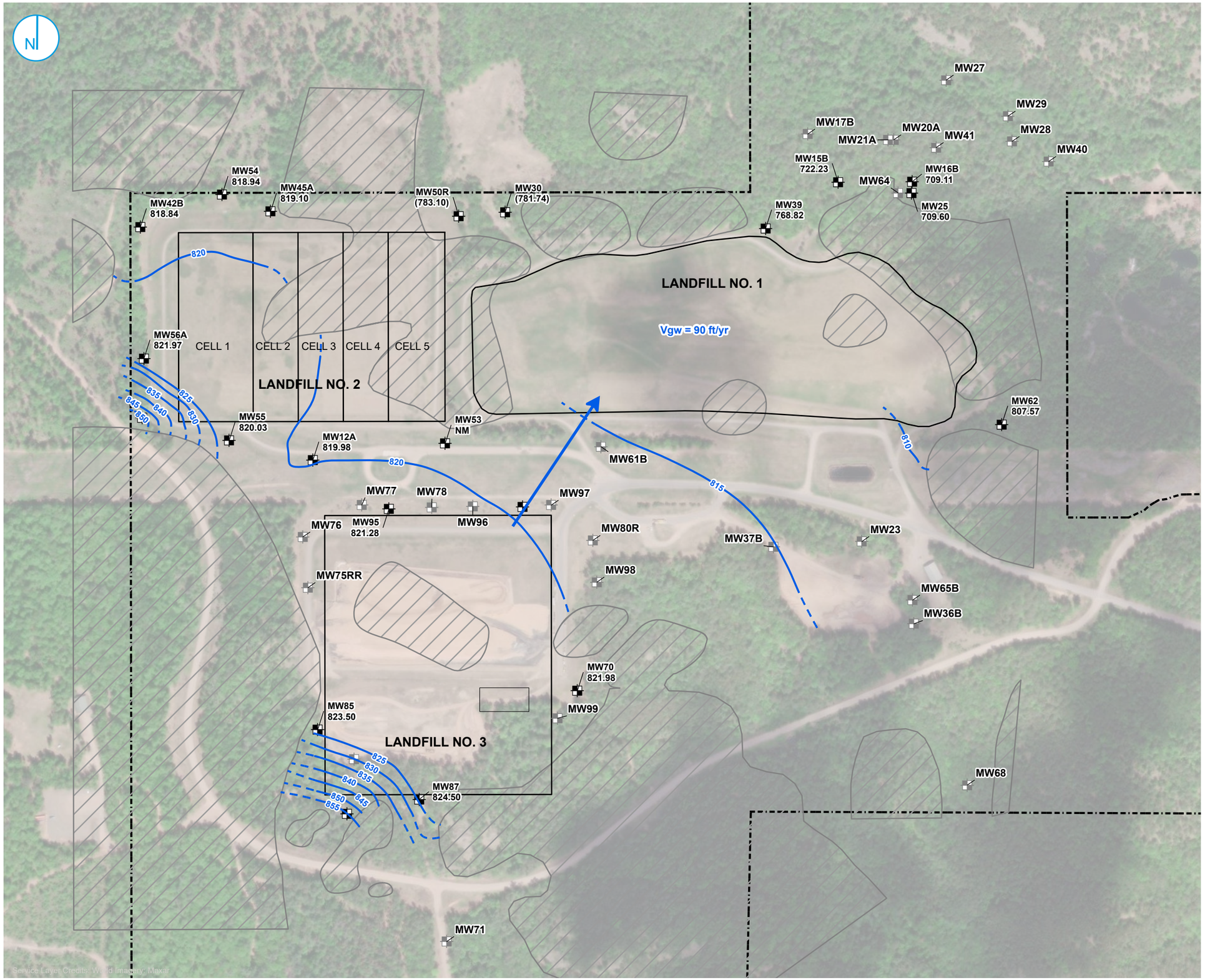
K =	2.38E+03	ft/yr.	Geometric mean for Landfill 3 (all)	Elevation Change			Distance Change	
i =	0.009		between contours identified above	(ft)			(ft)	
n_e =	25	%			5	/	581	0.009

$$V = \frac{2.38E+03 * 8.61E-03}{0.25}$$

V = 82 feet/year

[U: KLT 1/10/24, C: MMG 1/10/24]

Y:\GIS\Projects\16\1660MXD\2024 GW Contour Maps.aprx



- GROUNDWATER MONITORING WELL
- ABANDONED MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION
- INFERRED ZONES WHERE THE GLACIAL DRIFT AQUIFER IS NOT PRESENT
- LANDFILL BOUNDARY
- PROPERTY BOUNDARY

Notes

ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING
Vgw = ESTIMATED FT/YR GROUNDWATER FLOW VELOCITY
NM = NOT MEASURED

0 200 400 Feet

WATER TABLE ELEVATION CONTOURS
MAY 21 - 22, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PRESQUE ISLE POWER PLANT
ASH LANDFILL NO. 3

MARQUETTE COUNTY, MICHIGAN

FIGURE 3

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

PROJECT: 169000XXXX | DATED: 7/9/2024 | DESIGNER: CHURCHKE

GROUNDWATER AVERAGE LINEAR VELOCITY CALCULATIONS
PRESQUE ISLE POWER PLANT ASH LANDFILLS
MARQUETTE, MICHIGAN

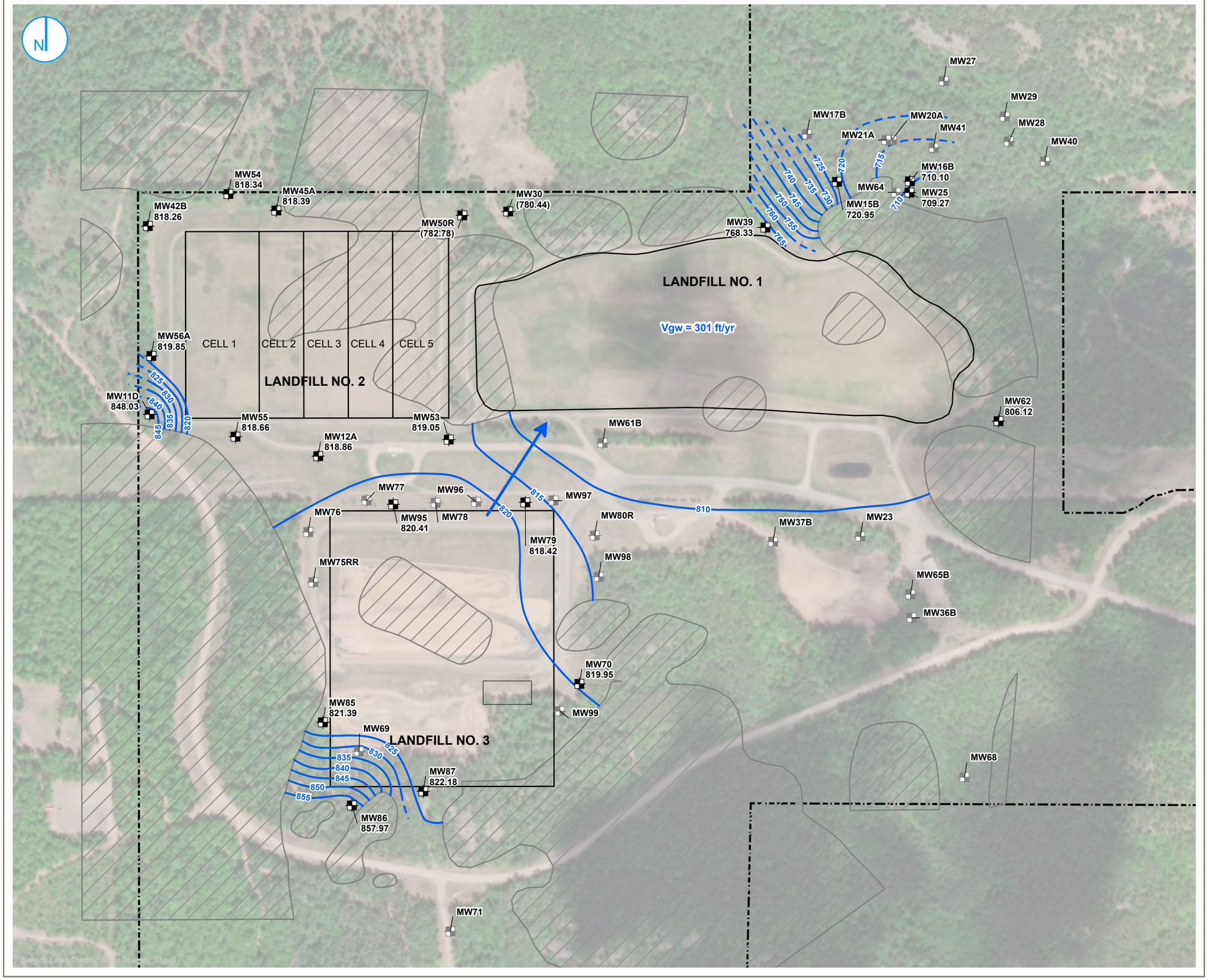
MAY 2024	**$V = K\ i\ /\ n_e$**	V = Groundwater Velocity
		K = Hydraulic Conductivity
		i = Hydraulic Gradient (unitless value)
		n_e = Effective Porosity
WATER TABLE		*(some contours are not shown on flow maps)*

Contours	**820**	**to**	**815**	**Northeast of Landfill 3**	Elevation			Distance		
K =	2.38E+03	ft/yr.		Geometric mean for Landfill 3 (all)	Change			Change		
i =	0.010			between contours identified above	(ft)			(ft)		
n_e =	25	%				5	/	526		0.010

$$V = \frac{2.38E+03 * 9.51E-03}{0.25}$$

V = 90 feet/year

[U: KLT 7/8/24, C: KJS 1/9/25]



- GROUNDWATER MONITORING WELL
- ABANDONED MONITORING WELL
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER ELEVATION CONTOUR (5-FT CONTOUR INTERVAL)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- LANDFILL BOUNDARY
- INFERRED ZONES WHERE THE GLACIAL DRIFT AQUIFER IS NOT PRESENT
- PROPERTY BOUNDARY

Notes
ELEVATIONS IN PARENTHESES NOT USED FOR CONTOURING
Vgw = ESTIMATED FT/YR GROUNDWATER FLOW VELOCITY

0 200 400 Feet

WATER TABLE ELEVATION CONTOURS NOVEMBER 19-20, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PRESQUE ISLE POWER PLANT
ASH LANDFILL NO. 3
MARQUETTE COUNTY, MICHIGAN

FIGURE 4

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.

RAMBOLL

GROUNDWATER AVERAGE LINEAR VELOCITY CALCULATIONS
PRESQUE ISLE POWER PLANT ASH LANDFILLS
MARQUETTE, MICHIGAN

NOVEMBER 2024 **$V = K\ i\ /\ n_e$**

V = Groundwater Velocity
K = Hydraulic Conductivity
i = Hydraulic Gradient (unitless value)
n_e = Effective Porosity

WATER TABLE *(some contours are not shown on flow maps)*

Contours **820** **to** **810** **Northeast of Landfill 3**

K =	2.38E+03	ft/yr.	Geometric mean for Landfill 3 (all)	Elevation Change		Distance Change	
i =	0.032		between contours identified above	(ft)		(ft)	
n_e =	25	%		10	/	316	0.032

$$V = \frac{2.38E+03 * 3.16E-02}{0.25}$$

V = 301 feet/year

[U: KLT 1/29/25, C: DSL 1/30/25]

APPENDICES

APPENDIX A
LABORATORY REPORTS

To: Eric Kovatch
PSB Annex A231

From: WEC Business Services
Laboratory Services PSBA-A070
WDNR Cert # 241329000

Report Date: Wednesday, July 3, 2024

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **MW-70** **PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73351 Sample Collection Date/Time: 05/22/2024 13:21
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	24.68	0.05	feet		1		H2OD	5/22/24	L ANDERSON
Field Temperature	8.2	0.1	Degrees C		1		TEMP	5/22/24	L ANDERSON
Field Conductivity	214	0	umhos		1		FCOND25	5/22/24	L ANDERSON
Field pH	7.6	0.1	Units	0.1	1		FIELDPH	5/22/24	L ANDERSON
Total Boron	18.5	17.3	ug/L	40.0	1		EPA 200.7	5/28/24	020
Total Calcium	24500	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	Less Than	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	116	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	0.75	0.59	mg/L	2.0	1	J, MO	EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1	MO	EPA 300.0	5/30/24	020
Total Sulfate	7.2	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Sample Comments:

Sample Description: **MW-79** **PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73352 Sample Collection Date/Time: 05/22/2024 09:33
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	22.67	0.05	feet		1		H2OD	5/22/24	L ANDERSON
Field Temperature	8.2	0.1	Degrees C		1		TEMP	5/22/24	L ANDERSON
Field Conductivity	176	0	umhos		1		FCOND25	5/22/24	L ANDERSON
Field pH	6.1	0.1	Units	0.1	1		FIELDPH	5/22/24	L ANDERSON
Total Boron	Less Than	17.3	ug/L	40.0	1		EPA 200.7	5/28/24	020
Total Calcium	38700	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	78.7	56.7	ug/L	100	1	J	EPA 200.7	5/28/24	020
Total Dissolved Solids	132	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	0.74	0.59	mg/L	2.0	1	J	EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	2.7	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Report Date: Wednesday, July 3, 2024

The following are the analytical results for samples received by Laboratory Services:

Sample Comments:

Sample Description: **MW-80PR PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73353 Sample Collection Date/Time: 05/22/2024 08:49
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	16.18	0.05	feet		1		H2OD	5/22/24	L ANDERSON
Field Temperature	9.4	0.1	Degrees C		1		TEMP	5/22/24	L ANDERSON
Field Conductivity	277	0	umhos		1		FCOND25	5/22/24	L ANDERSON
Field pH	7.9	0.1	Units	0.1	1		FIELDPH	5/22/24	L ANDERSON
Total Boron	Less Than	17.3	ug/L	40.0	1		EPA 200.7	5/28/24	020
Total Calcium	48500	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	Less Than	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	158	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	3.0	0.59	mg/L	2.0	1		EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	4.8	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Sample Comments:

Sample Description: **MW-85 PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73354 Sample Collection Date/Time: 05/22/2024 11:34
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	40.44	0.05	feet		1		H2OD	5/22/24	L ANDERSON
Field Temperature	7.6	0.1	Degrees C		1		TEMP	5/22/24	L ANDERSON
Field Conductivity	34.0	0	umhos		1		FCOND25	5/22/24	L ANDERSON
Field pH	6.4	0.1	Units	0.1	1		FIELDPH	5/22/24	L ANDERSON
Total Boron	20.1	17.3	ug/L	40.0	1	J	EPA 200.7	5/28/24	020
Total Calcium	5170	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	Less Than	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	36.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	0.81	0.59	mg/L	2.0	1	J	EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	2.3	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Report Date: Wednesday, July 3, 2024

The following are the analytical results for samples received by Laboratory Services:

Sample Comments:

Sample Description: **MW-86 PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73355 Sample Collection Date/Time: 05/22/2024 12:12
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	6.80	0.05	feet		1		H2OD	5/22/24	L ANDERSON
Field Temperature	7.6	0.1	Degrees C		1		TEMP	5/22/24	L ANDERSON
Field Conductivity	86.2	0	umhos		1		FCOND25	5/22/24	L ANDERSON
Field pH	6.2	0.1	Units	0.1	1		FIELDPH	5/22/24	L ANDERSON
Total Boron	Less Than	17.3	ug/L	40.0	1		EPA 200.7	5/28/24	020
Total Calcium	3240	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	23100	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	88.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	0.94	0.59	mg/L	2.0	1	J	EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	Less Than	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Sample Comments:

Sample Description: **MW-87 PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73356 Sample Collection Date/Time: 05/22/2024 12:56
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	30.95	0.05	feet		1		H2OD	5/22/24	L ANDERSON
Field Temperature	8.2	0.1	Degrees C		1		TEMP	5/22/24	L ANDERSON
Field Conductivity	81.4	0	umhos		1		FCOND25	5/22/24	L ANDERSON
Field pH	6.9	0.1	Units	0.1	1		FIELDPH	5/22/24	L ANDERSON
Total Boron	32.8	17.3	ug/L	40.0	1	J	EPA 200.7	5/28/24	020
Total Calcium	9430	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	401	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	58.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	0.98	0.59	mg/L	2.0	1	J	EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	5.5	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Report Date: Wednesday, July 3, 2024

The following are the analytical results for samples received by Laboratory Services:

Sample Comments:

Sample Description: **MW-95** **PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73357 Sample Collection Date/Time: 05/22/2024 10:58
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	31.97	0.05	feet		1		H2OD	5/22/24	L ANDERSON
Field Temperature	9.2	0.1	Degrees C		1		TEMP	5/22/24	L ANDERSON
Field Conductivity	193	0	umhos		1		FCOND25	5/22/24	L ANDERSON
Field pH	7.6	0.1	Units	0.1	1		FIELDPH	5/22/24	L ANDERSON
Total Boron	27.9	17.3	ug/L	40.0	1		EPA 200.7	5/28/24	020
Total Calcium	29900	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	Less Than	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	122	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	0.68	0.59	mg/L	2.0	1	J	EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	2.6	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Sample Comments:

Sample Description: **QC 03** **PIPP Landfill 3 Semi Annual - State and CCR**
Sample ID: AE73358 Sample Collection Date/Time: 05/22/2024 09:38
Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Boron	25.1	17.3	ug/L	40.0	1	J	EPA 200.7	5/28/24	020
Total Calcium	25600	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	Less Than	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	98.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	0.74	0.59	mg/L	2.0	1	J	EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	7.6	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Sample Comments:

Report Date: Wednesday, July 3, 2024

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **EB 3** **PIPP Landfill 3 Semi Annual - State and CCR**

Sample ID: AE73359 Sample Collection Date/Time: 05/22/2024 13:30

Sample Received: 06/17/2024 Sample Collector: RAMBOLL

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Boron	Less Than	17.3	ug/L	40.0	1		EPA 200.7	5/28/24	020
Total Calcium	Less Than	114	ug/L	500	1		EPA 200.7	5/28/24	020
Total Iron	Less Than	56.7	ug/L	100	1		EPA 200.7	5/28/24	020
Total Dissolved Solids	Less Than	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/28/24	020
Total Chloride	Less Than	0.59	mg/L	2.0	1		EPA 300.0	5/30/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/30/24	020
Total Sulfate	Less Than	0.44	mg/L	2.0	1		EPA 300.0	5/30/24	020

Sample Comments:

LOD and LOQ are adjusted for dilution factor.

'J' Flag, if present indicates an estimated concentration at or above the LOD and below the LOQ.

If there are any questions concerning this report, please contact Lab Services: 414-221-4595

To: Eric Kovatch
PSB Annex A231

From: WEC Business Services
Laboratory Services PSBA-A070
WDNR Cert # 241329000

Report Date: Wednesday, January 15, 2025

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **MW-70 PIPP Semi-Annual CCR Well**
Sample ID: AE76248 Sample Collection Date/Time: 11/20/2024 16:47
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	26.71	0.05	feet		1		H2OD	11/20/24	RAMBOLL
Field Temperature	8.2	0.1	Degrees C		1		TEMP	11/20/24	RAMBOLL
Field pH	7.5	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Field Conductivity	129	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	65.9	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	65.9	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	50.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	0.88	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Dissolved Sulfate	3.5	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Chloride	0.87	0.59	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1	M0	EPA 300.0	12/6/24	020
Total Sulfate	3.6	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	23.0	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	20500	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	62.6	58.0	ug/L	250	1	J	EPA 200.8	11/22/24	020
Dissolved Calcium	20800	76.2	ug/L	254	1	D9	EPA 200.8	11/27/24	020
Dissolved Magnesium	2910	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	829	237	ug/L	789	1		EPA 200.8	11/27/24	020
Dissolved Sodium	1250	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Sample Comments:

D9 - Dissolved result greater than total. Data within laboratory control limits
M0 - Matrix spike or matrix spike duplicate recovery was outside laboratory cont
rol limits.

Sample Description: **MW-79 PIPP Semi-Annual CCR Well**
Sample ID: AE76249 Sample Collection Date/Time: 11/20/2024 11:45
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	24.17	0.05	feet		1		H2OD	11/20/24	RAMBOLL
Field Temperature	9.7	0.1	Degrees C		1		TEMP	11/20/24	RAMBOLL
Field pH	6.3	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Field Conductivity	149	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	70.3	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	70.3	5.0	mg/L	10.0	1		HCO3	11/25/24	020

Report Date: Wednesday, January 15, 2025

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **MW-79 PIPP Semi-Annual CCR Well**
Sample ID: AE76249 Sample Collection Date/Time: 11/20/2024 11:45
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	60.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	0.82	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Dissolved Sulfate	5.8	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Chloride	0.84	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	12/6/24	020
Total Sulfate	5.8	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	29.1	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	18000	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	Less Than	58.0	ug/L	250	1		EPA 200.8	11/22/24	020
Dissolved Calcium	18000	76.2	ug/L	254	1	SD	EPA 200.8	11/27/24	020
Dissolved Magnesium	5240	31.2	ug/L	250	1	SD	EPA 200.8	11/27/24	020
Dissolved Potassium	2390	237	ug/L	789	1		EPA 200.8	11/27/24	020
Dissolved Sodium	4500	42.0	ug/L	250	1	SD	EPA 200.8	11/27/24	020

Sample Comments:

SD - Serial dilution and the original analysis did not agree within +/- 10%. Th
e concentration is estimated due to a suspected chemical or physical interferenc
e.

Sample Description: **MW-80PR PIPP Semi-Annual CCR Well**
Sample ID: AE76250 Sample Collection Date/Time: 11/20/2024 11:11
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	17.97	0.05	feet		1		H2OD	11/20/24	RAMBOLL
Field Temperature	9.1	0.1	Degrees C		1		TEMP	11/20/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Field Conductivity	285	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	144	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	144	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	134	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	2.9	0.59	mg/L	2.0	1		EPA 300.0	12/6/24	020
Dissolved Sulfate	4.2	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Chloride	3.0	0.59	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	12/6/24	020
Total Sulfate	4.3	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	16.3	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	44000	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	Less Than	58.0	ug/L	250	1		EPA 200.8	11/22/24	020
Dissolved Calcium	44800	76.2	ug/L	254	1	D9	EPA 200.8	11/27/24	020
Dissolved Magnesium	7260	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	1180	237	ug/L	789	1		EPA 200.8	11/27/24	020
Dissolved Sodium	1680	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Report Date: Wednesday, January 15, 2025

The following are the analytical results for samples received by Laboratory Services:

Sample Comments:

Sample Description: **MW-85 PIPP Semi-Annual CCR Well**
Sample ID: AE76251 Sample Collection Date/Time: 11/20/2024 13:10
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	42.51	0.05	feet		1		H2OD	11/20/24	RAMBOLL
Field Temperature	7.5	0.1	Degrees C		1		TEMP	11/20/24	RAMBOLL
Field pH	6.5	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Field Conductivity	39.5	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	14.3	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	14.3	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	10.0	8.7	mg/L	20.0	1	J	Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	0.84	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Dissolved Sulfate	2.7	0.44	mg/L	2.0	1	D9	EPA 300.0	12/6/24	020
Total Chloride	0.84	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	12/6/24	020
Total Sulfate	2.6	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	15.3	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	4850	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	Less Than	58.0	ug/L	250	1		EPA 200.8	11/22/24	020
Dissolved Calcium	4830	76.2	ug/L	254	1		EPA 200.8	11/27/24	020
Dissolved Magnesium	891	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	606	237	ug/L	789	1	J	EPA 200.8	11/27/24	020
Dissolved Sodium	718	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Sample Comments:

D9 - Dissolved result greater than total. Data within laboratory control limits
.

Sample Description: **MW-86 PIPP Semi-Annual CCR Well**
Sample ID: AE76252 Sample Collection Date/Time: 11/20/2024 15:28
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.73	0.05	feet		1		H2OD	11/20/24	RAMBOLL
Field Temperature	9.8	0.1	Degrees C		1		TEMP	11/20/24	RAMBOLL
Field pH	6.2	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Field Conductivity	173	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	49.8	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	49.8	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020

Report Date: Wednesday, January 15, 2025

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **MW-86 PIPP Semi-Annual CCR Well**
Sample ID: AE76252 Sample Collection Date/Time: 11/20/2024 15:28
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Dissolved Solids	118	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	4.0	3.0	mg/L	10.0	5	J, D3	EPA 300.0	12/6/24	020
Dissolved Sulfate	Less Than	2.2	mg/L	10.0	5	D3	EPA 300.0	12/6/24	020
Total Chloride	3.8	3.0	mg/L	10.0	5	J, D3	EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.48	mg/L	1.6	5	D3	EPA 300.0	12/6/24	020
Total Sulfate	Less Than	2.2	mg/L	10.0	5	D3	EPA 300.0	12/6/24	020
Total Boron	13.6	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	9790	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	29000	58.0	ug/L	250	1		EPA 200.8	11/22/24	020
Dissolved Calcium	10000	76.2	ug/L	254	1	D9	EPA 200.8	11/27/24	020
Dissolved Magnesium	4690	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	1920	237	ug/L	789	1		EPA 200.8	11/27/24	020
Dissolved Sodium	1290	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Sample Comments:

D9 - Dissolved result greater than total. Data within laboratory control limits
D3 - Sample was diluted due to the presence of high levels of non-target analyte
s or other matrix interference.

Sample Description: **MW-87 PIPP Semi-Annual CCR Well**
Sample ID: AE76253 Sample Collection Date/Time: 11/20/2024 16:13
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	36.35	0.05	feet		1		H2OD	11/20/24	RAMBOLL
Field Temperature	7.6	0.1	Degrees (		1		TEMP	11/20/24	RAMBOLL
Field pH	7.1	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Field Conductivity	137	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	61.9	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	61.9	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	66.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	1.1	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Dissolved Sulfate	5.7	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Chloride	1.2	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	12/6/24	020
Total Sulfate	6.2	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	64.1	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	12000	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	120	58.0	ug/L	250	1	J	EPA 200.8	11/22/24	020
Dissolved Calcium	11700	76.2	ug/L	254	1		EPA 200.8	11/27/24	020
Dissolved Magnesium	3590	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	2540	237	ug/L	789	1		EPA 200.8	11/27/24	020
Dissolved Sodium	8220	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Report Date: Wednesday, January 15, 2025

The following are the analytical results for samples received by Laboratory Services:

Sample Comments:

Sample Description: **MW-95 PIPP Semi-Annual CCR Well**
Sample ID: AE76254 Sample Collection Date/Time: 11/20/2024 12:30
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	32.98	0.05	feet		1		H2OD	11/20/24	RAMBOLL
Field Temperature	8.4	0.1	Degrees C		1		TEMP	11/20/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Field Conductivity	205	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	108	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	108	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	82.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	0.83	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Dissolved Sulfate	2.7	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Chloride	0.85	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	12/6/24	020
Total Sulfate	2.7	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	23.9	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	28000	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	Less Than	58.0	ug/L	250	1		EPA 200.8	11/22/24	020
Dissolved Calcium	27900	76.2	ug/L	254	1		EPA 200.8	11/27/24	020
Dissolved Magnesium	7080	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	1040	237	ug/L	789	1		EPA 200.8	11/27/24	020
Dissolved Sodium	1710	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Sample Comments:

Sample Description: **QC 03 PIPP Semi-Annual CCR Well**
Sample ID: AE76255 Sample Collection Date/Time: 11/20/2024 16:52
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Filtered Alkalinity as CaCO3	62.7	5.0	mg/l	10.0	1		Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	62.7	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	38.0	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	0.91	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020
Dissolved Sulfate	3.5	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Chloride	0.94	0.59	mg/L	2.0	1	J	EPA 300.0	12/6/24	020

Report Date: Wednesday, January 15, 2025

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **QC 03 PIPP Semi-Annual CCR Well**
Sample ID: AE76255 Sample Collection Date/Time: 11/20/2024 16:52
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	12/6/24	020
Total Sulfate	3.7	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	9.6	3.0	ug/L	10.0	1	J	EPA 200.8	11/22/24	020
Total Calcium	19700	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	65.8	58.0	ug/L	250	1	J	EPA 200.8	11/22/24	020
Dissolved Calcium	20000	76.2	ug/L	254	1	D9	EPA 200.8	11/27/24	020
Dissolved Magnesium	2770	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	758	237	ug/L	789	1	J	EPA 200.8	11/27/24	020
Dissolved Sodium	1050	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Sample Comments:

Sample Description: **EB 3 PIPP Semi-Annual CCR Well**
Sample ID: AE76256 Sample Collection Date/Time: 11/20/2024 17:10
Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Filtered Alkalinity as CaCO3	6.6	5.0	mg/l	10.0	1	J	Std Mtd 2320 B	11/25/24	020
Bicarbonate Ion	6.6	5.0	mg/L	10.0	1		HCO3	11/25/24	020
Carbonate Ion	Less Than	5.0	mg/L	10.0	1		CO3	11/25/24	020
Total Dissolved Solids	Less Than	8.7	mg/L	20.0	1		Std Mtd 2540 C	11/25/24	020
Dissolved Chloride	Less Than	0.59	mg/L	2.0	1		EPA 300.0	12/6/24	020
Dissolved Sulfate	Less Than	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Chloride	Less Than	0.59	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	12/6/24	020
Total Sulfate	Less Than	0.44	mg/L	2.0	1		EPA 300.0	12/6/24	020
Total Boron	Less Than	3.0	ug/L	10.0	1		EPA 200.8	11/22/24	020
Total Calcium	Less Than	76.2	ug/L	254	1		EPA 200.8	11/22/24	020
Total Iron	Less Than	58.0	ug/L	250	1		EPA 200.8	11/22/24	020
Dissolved Calcium	Less Than	76.2	ug/L	254	1		EPA 200.8	11/27/24	020
Dissolved Magnesium	Less Than	31.2	ug/L	250	1		EPA 200.8	11/27/24	020
Dissolved Potassium	Less Than	237	ug/L	789	1		EPA 200.8	11/27/24	020
Dissolved Sodium	Less Than	42.0	ug/L	250	1		EPA 200.8	11/27/24	020

Sample Comments:

Report Date: Wednesday, January 15, 2025

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **L-Tank PIPP Landfill 3 Annual Sample**

Sample ID: AE76257 Sample Collection Date/Time: 11/20/2024 17:25

Sample Received: 01/03/2025 Sample Collector: FALYN STREY

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	11	0.1	Degrees C		1		TEMP	11/20/24	RAMBOLL
Field Conductivity	10112	0	umhos		1		FCOND25	11/20/24	RAMBOLL
Field pH	9.8	0.1	Units	0.1	1		FIELDPH	11/20/24	RAMBOLL
Total Suspended Solids	16.9	0.54	mg/L	1.1	1		Std Mtd 2540 D	11/25/24	020
Total Arsenic	714	2.8	ug/L	10.0	10		EPA 200.8	11/22/24	020
Total Calcium	34000	762	ug/L	2540	10		EPA 200.8	11/22/24	020
Total Magnesium	4570	312	ug/L	2500	110		EPA 200.8	11/22/24	020

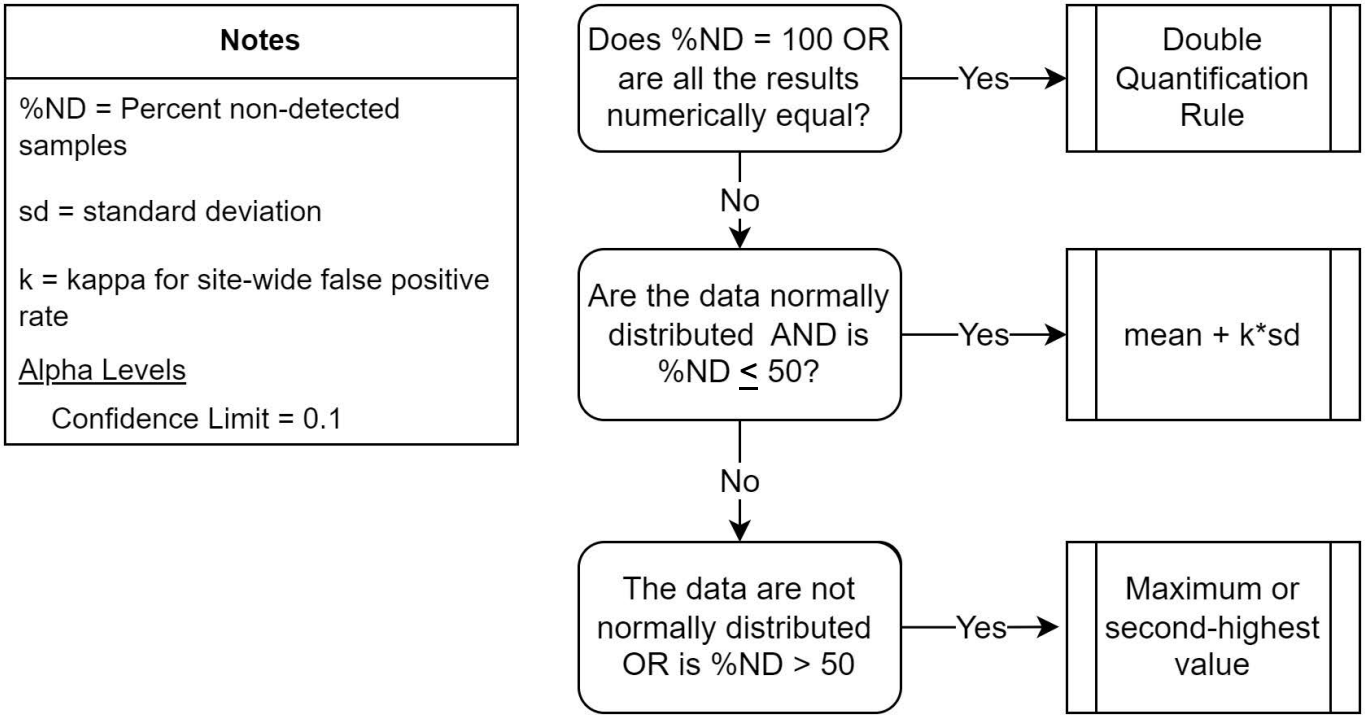
Sample Comments:

LOD and LOQ are adjusted for dilution factor.

'J' Flag, if present indicates an estimated concentration at or above the LOD and below the LOQ.

If there are any questions concerning this report, please contact Lab Services: 414-221-4595

APPENDIX B
STATISTICAL METHODOLOGY FOR DETERMINATION OF BACKGROUND VALUES



When data are not normally distributed or %ND > 50, the maximum value is used if the background sample size is < 60. Where the background sample size is > 60, the achievable per-constituent false positive rates for the maximum and second-highest background values will be compared, and the background value with the achievable per-constituent false positive rate that is closest to, but does not exceed, the target per-constituent false positive rate of 0.015% is used.