2024 Periodic Review Report for the Reynolds Metals Company, LLC

Massena East
New York
NYSDEC Site Code #645009

Prepared for:

Alcoa Corporation
Reynolds Metals Company, LLC

Prepared by:

EHS Support

April 2025

Table of Contents

1 Introduction 1

1.1 Intent of Document 1
1.2 General Information 1
1.3 Organization of Report 2
1.4 Non-Routine Report Sections 2
1.4.1 Integrated Water Management Planning 2

2 Operations, Maintenance, and Monitoring Requirements 4

2.1 Post-Closure Monitoring 4
2.1.1 Water Level Measurements 4
2.1.2 Groundwater Sampling and Analysis 4
2.1.3 Data Evaluation and Assessment 5
2.1.4 Precipitation Data 5
2.1.5 Data Quality Review 6

3 Hydrogeologic Conceptual Site Model 7

3.1.1 Geology 7
3.1.1.1 Gray Glacial Till 8
3.1.1.2 Lacustrine/Marine Clay 8
3.1.1.3 Winnowed Till 8
3.1.1.4 Lacustrine/Marine Silt and Silty Sand 9
3.1.1.5 Fluvial Deposits 9
3.1.1.6 Fill 9
3.1.2 Hydrogeology 10
3.1.2.1 Lateral Groundwater Flow 11
3.1.2.2 Vertical Groundwater Flow 11
3.2 Precipitation 11
3.3 Groundwater Elevations 11
3.4 Fluoride Concentration Distributions 12

4 Industrial Landfill (OU-1) 13

4.1 Operations 15
4.2 Maintenance, Repairs, and Modifications 15
4.3 Groundwater Monitoring 16
4.3.1 Groundwater Elevations and Hydraulic Gradients 16
4.3.2 Groundwater Quality 16
4.3.3 Outfall 010 Groundwater Extraction System 18
4.3.4 Post-Closure Assessment 18

5 Black Mud Pond (OU-2) 20

5.1 Operations 21
5.2 Maintenance, Repairs, and Modifications 21

5.3 Groundwater Monitoring 22
5.3.1 Groundwater Elevations and Hydraulic Gradients 22
5.3.2 Groundwater Quality 23
5.3.3 Post-Closure Monitoring Assessment 24

6 North Yard (OU-3) 26

6.1 Operations 27
6.2 Maintenance, Repairs, and Modifications 27
6.3 Groundwater Monitoring 28
6.3.1 Groundwater Elevations and Hydraulic Gradients 28
6.3.2 Groundwater Quality 28
6.3.3 Post-Closure Assessment 30

7 Former Potliner Storage Pad (OU-5) 31

7.1 Operations 32
7.2 Maintenance, Repairs and Modifications 32
7.3 Groundwater Monitoring 32
7.3.1 Groundwater Elevations and Hydraulic Gradients 32
7.3.2 Groundwater Quality 32
7.3.3 Post-Closure Assessment 34

8 Wetlands and Miscellaneous Areas (OU-4 and OU-6) 35

8.1 Wetlands Remediation Area 35
8.2 Rectifier Yard 35
8.3 Former Soil Stockpile 35
8.4 West Ditch Outfall 36
8.5 002 Diversion Area (Outfall 005) 36
8.6 Area North of Haverstock Road and Outfall 004 36

9 Findings and Recommendations 37

9.1 General 37
9.1.1 Industrial Landfill Findings 37
9.1.2 Black Mud Pond Findings 38
9.1.3 North Yard Findings 39
9.1.4 Former Potliner Storage Pad Findings 39
9.1.5 Rectifier Yard Findings 40
9.2 Institutional Control and Engineering Control Plan Review 40
9.2.1 Industrial Landfill 40
9.2.2 Black Mud Pond 41
9.2.3 North Yard 41
9.2.4 Former Potliner Storage Pad 41
9.2.5 Wetlands and Site-Wide 41
9.3 Sampling Schedule 41
9.4 Recommendations 42

10 References 43

List of Embedded Tables

Table 2-1 New York State Class GA Groundwater Standards
Table 4-1 ILF Groundwater Monitoring Results
Table 5-1 BMP Groundwater Monitoring Results
Table 6-1 North Yard Groundwater Monitoring Results
Table 7-1 Former Potliner Storage Pad Groundwater Monitoring Results

List of Attached Tables

Table 1 Monitoring Well and Piezometer Construction
Table 2 Groundwater Monitoring Schedule
Table 3 Groundwater Elevation Measurements at Black Mud Pond
Table 4 Groundwater Elevations at the Industrial Landfill
Table 5 Groundwater Elevation Data for Former Potliner Storage Pad Area
Table 6 Groundwater Elevation Data for North Yard
Table 7 Summary of Groundwater and Surface Water Recovered from Leachate Collection System
Table 8 Extraction Well Flowmeter Readings
Table 9 Extraction Well Analytical Results
Table 10 Summary of Historical Analytical Results Compared to Results for 2024
Table 11 Summary of Groundwater Quantities Removed for BMP
Table 12 French Drain Flow Data

List of Embedded Figures

Figure 3-1 Schematic Stratigraphic Section Showing Relationships and Generalized Grain Sizes of Deposits Identified at the Site
Figure 3-2 Revised Conceptualization of Site Geology

List of Attached Figures

Figure 1 Operable Units
Figure 2 Outfall Location Plan
Figure 3 Outfall Locations
Figure 4 Spring 2024 Sitewide Groundwater Contours
Figure 5 Fall 2024 Sitewide Groundwater Contours
Figure 6 Fluoride Concentration Contours June 2024
Figure 7 Fluoride Concentration Contours December 2024
Figure 8 Landfill Location Plan
Figure 9 Cumulative Landfill Groundwater Removal
Figure 10 Monthly Landfill Groundwater Removal
Figure 11 Historical Flowmeter Readings for Extraction Wells through 2024
Figure 12 Groundwater Elevations in Landfill Downgradient Wells and Piezometers
Figure 13 Groundwater Elevations in Extraction Wells
Figure 14 Black Mud Pond Location Plan

Figure 15 Monthly BMP Groundwater Removal
Figure 16 Cumulative BMP Groundwater Removal
Figure 17 Groundwater Elevations in BMP Piezometers
Figure 18 North Yard and PSP Location Plan
Figure 19 Rectifier Yard Location Plan

List of Appendices

Appendix A O&M Activities
Appendix B Field Sampling Forms
Appendix C Historical Analytical Results
Appendix D Statistical Analysis – Post-Closure Mann Kendall Trends
Appendix E Data Quality Assessments
Appendix F Institutional and Engineering Controls Certification Form
Appendix G Daily Precipitation Data for 2024

Acronyms

bgs	below ground surface
BMP	Black Mud Pond
cm/sec	centimeters per second
COC	constituent of concern
CY	cubic yard
FCR	Field Change Request
ft	feet
HCSM	Hydrogeologic Conceptual Site Model
HTM	heat transfer medium
ILF	Industrial Landfill
mg/L	milligrams per liter
NYSDEC	New York State Department of Environmental Conservation
NYSWQS	New York State Water Quality Standards
O&M	operations and maintenance
OU	operable unit
PCB	polychlorinated biphenyl
ppm	parts per million
PSP	Potliner Storage Pad
ROD	Record of Decision
SPDES	State Pollutant Discharge Elimination System
SPLWETE	eastern wetlands
SPLWETW	western wetlands
USEPA	United States Environmental Protection Agency

Trademarks, trade names, company, or product names referenced herein are used for identification purposes only and are the property of their respective owners.

1 Introduction

1.1 Intent of Document

This *2024 Periodic Review Report* was prepared by EHS Support LLC ("EHS Support") for Alcoa Corporation ("Alcoa") and presents the results of the post--closure monitoring program conducted in 2024 at the Reynolds Metals Company, LLC facility, New York State Department of Environmental Conservation (NYSDEC) Site #645009 ("Site") in Massena, New York.

The following remediated operable units (OUs) are addressed in this report:

- Closed Industrial Landfill (ILF) (OU-1)
- Black Mud Pond (BMP) (OU-2)
- North Yard (OU-3)
- Wetlands Remediation Area (OU-4)
- Former Potliner Storage Pad (PSP) (OU-5)
- Miscellaneous areas, including the Rectifier Yard (OU-6)

This report provides an overview of the hydrogeology and groundwater constituent concentrations; documents the post-closure monitoring activities and ongoing implementation of institutional and engineering controls for the Site; and summarizes non-routine activities conducted at the Site throughout the year. The non-routine activities this year involved planning for Integrated Water Management at the Site.

This *2024 Periodic Review Report* provides the following:

- Brief background summary for each remediated OU
- Summary of Period Review Report monitoring and operations and maintenance (O&M) activities that occurred at each OU during the year
- Overall Site plan showing all monitoring wells associated with post-closure monitoring efforts
- Groundwater contour map for spring and fall
- Summary of analytical data collected during the year
- Statistical analysis of collected groundwater samples
- Review of the institutional and engineering control plan
- Certification of the institutional and engineering controls
- Findings and recommendations for future activities

1.2 General Information

The Site was formally owned and operated by Reynolds Metals Company as the St. Lawrence Reduction Plant ("Plant"). The Plant was built in 1958 and ceased production in 2014. In the mid-1980s, Reynolds Metals Company entered into an Order of Consent with NYSDEC to develop a remedial investigation and action plan to address contamination at the Site. In 1992, NYSDEC issued a Record of Decision (ROD) that summarized the selected remediation activities for each of the hazardous waste areas (NYSDEC, 1992), which are referred to as OUs. In 2001, Alcoa purchased Reynolds Metals Company and took responsibility for post-closure activities. Reynolds Metals Company has remained a wholly owned subsidiary company.

Based on closure documents submitted to NYSDEC, the Site's timeline was as follows:

- Miscellaneous areas were closed in 1994.
- Remedial construction for the former PSP was completed in 1995.
- The BMP was closed in 1996.
- Remedial construction for the North Yard was completed in 1997.
- The ILF cap was completed in 2003.
- Production ceased in 2014.

A series of monitoring wells were installed throughout the Site during closure activities. These wells now serve as the post-closure monitoring well network. The OUs are shown in **Figure 1**. Construction details for monitoring wells at the Site are shown in **Table 1**. The locations of outfalls regulated by the State Pollutant Discharge Elimination System (SPDES) are shown in **Figure 2**, and outfall catchment areas are shown on **Figure 3**.

1.3 Organization of Report

The remaining sections of this report provide the following information.

Section 2 summarizes the operation and maintenance (O&M) activities performed and the monitoring requirements. **Section 3** summarizes the Hydrogeologic Conceptual Site Model (HCSM). **Section 4** through **Section 8** discusses the six OUs. **Section 9** provides the findings and recommendations from the post-closure monitoring program. **Section 10** lists the references cited in this report.

Appendix A presents the schedule of required O&M activities. **Appendix B** contains field sampling forms, notes, and chain of custodies. **Appendix C** contains historical analytical data. **Appendix D** contains a statistical analysis of analytical results. **Appendix E** contains data quality assessments for the annual sampling data. **Appendix F** contains the Institutional and Engineering Controls Certification Form. **Appendix G** consists of daily precipitation data for the year.

1.4 Non-Routine Report Sections

1.4.1 Integrated Water Management Planning

While the plant was operational, several drainage and conveyance systems were installed to support operations. These drainage systems conveyed stormwater drainage, sanitary, and industrial wastewaters. The drainage systems were installed in parallel to carry flow from the point of generation to treatment and eventually to receiving waterbodies. Today, much of these systems are aged or inactive; groundwater infiltration into these utilities, as permitted, results in consistent discharge to plant treatment systems. To ensure the Site remains in compliance with its SPDES permit (No. NY0000132), these treatment systems require extensive resources to operate and maintain. In addition, the primary stormwater drainage system is up to 20 feet below the surface grade in portions of the plant, complicating efforts to keep the drainage system free of potentially contaminated sediment and material.

To address this, a site-wide integrated water management plan (IWMP) is being pursued to:

1. Reduce the sources of inflow to the drainage system;

2. Modify the drainage system to facilitate maintenance and cleanout activities;
3. Eliminate the need for pumped conveyance of drainage; and
4. Replace large-scale, traditional treatment systems with sustainable, nature-based practices (e.g., treatment wetlands) where possible.

Phased planning and design activities in support of the IWMP are ongoing; with field investigation, regulator outreach and engineering design proceeding in parallel through summer of 2025. The current project schedule calls for construction work on the IWMP to begin in the fall of 2026, pursuant to regulator review and approval timelines.

2 Operations, Maintenance, and Monitoring Requirements

Following closure of the six OUs listed in **Section 1.1**, the Site has complied with the post-closure requirements found in Title 6 of the New York Codes, Rules, and Regulations Part 373-2.14(g) (2), including maintenance and monitoring throughout the post-closure care period. Applicable regulations include the following:

- Maintain the integrity and effectiveness of the final cover, which includes making necessary repairs to correct the effects of settling, subsidence, erosion, and/or other similar events
- Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements
- Prevent run-on and runoff from eroding, or otherwise damaging, the final cover systems
- Protect and maintain surveyed benchmarks

A summary of the O&M schedule is provided in **Appendix A**. Details on the post-closure requirements specific to each OU are provided in **Section 4** through **Section 8**.

2.1 Post-Closure Monitoring

Details of the post-closure monitoring program are provided in **Section 2.1.1** through **Section 2.1.5**. The post-closure groundwater monitoring schedule is provided in **Table 2**. The quarterly gauging and sampling events were conducted in March, June, September, and December. Comprehensive spring and fall monitoring events were conducted in March and September, respectively.

2.1.1 Water Level Measurements

Groundwater elevations were measured at designated monitoring wells and piezometers near each of the relevant OUs (ILF, BMP, PSP, North Yard, and Rectifier Yard) during post-closure sampling events. Site-wide groundwater elevation contours for spring and fall are shown in **Figure 4** and **Figure 5**, respectively. Groundwater elevations are provided on **Table 3** through **Table 6**.

2.1.2 Groundwater Sampling and Analysis

The post-closure groundwater monitoring program was performed in accordance with the schedule presented in **Table 2**, which includes modifications approved by NYSDEC in an email dated March 15, 2023[1].

Analytical analysis for the monitoring locations was performed by Alpha Analytical in Westborough, Massachusetts (polychlorinated biphenyls [PCBs]), Alpha Analytical in Mansfield, Massachusetts (fluoride and sulfate), and Eurofins in Pittsburgh, Pennsylvania (free cyanide).

Well gauging, purging, and groundwater sampling activities, including measurement of groundwater field parameters (e.g., pH, temperature, specific conductance, turbidity, or redox potential), were completed by CDM Smith Inc. Field sampling forms are provided in **Appendix B**.

[1] The use of free cyanide in place of total and WAD cyanide was approved by NYSDEC in an email dated March 15, 2023.

2.1.3 Data Evaluation and Assessment

Beginning with the *2022 Annual Periodic Review Report* (EHS Support, 2023), statistical concentration trend analysis has been applied to data collected after the second quarter of 2014 (starting in July 2014) when potline operation ceased. This time frame was selected to account for the major remediation actions and operational changes (i.e., plant closure) that have occurred at the Site. The statistical significance of concentration trends is evaluated using the Mann-Kendall technique according to standard methods described by Aziz et al. (2003). Historical analytical data collected for the wells monitored during the semiannual monitoring program are presented in **Appendix C**, and an evaluation of the statistical trends is provided in **Appendix D**.

The groundwater monitoring data provided in the sections for each OU (ILF **Section 4.3;** BMP **Section 5.3**; North Yard **Section 6.3**; Former PSP **Section 7.3**; and Wetland and Miscellaneous Areas **Section 8.3**) are evaluated relative to post-closure monitoring requirements; remedial action objectives; available standards, criteria, and guidelines; and historical trends. In the sections of this report that discuss individual, remediated OUs, reference is made to the NYSDEC Class GA Groundwater Standards outlined in **Table 2-1**.

Table 2-1 New York State Class GA Groundwater Standards

Chemical	Concentration
Free Cyanide	0.2 mg/L
Fluoride	1.5 mg/L
Sulfate	250 mg/L
Total PCBs	0.09 µg/L

Notes:
µg/L = micrograms per liter
mg/L = milligrams per liter
PCB = polychlorinated biphenyl

Note that cyanide was analyzed as *free* cyanide, the form most likely to exhibit toxicological effects. The NYSDEC groundwater standard for cyanide, promulgated in 1998, is based on the United States Environmental Protection Agency (USEPA) maximum contaminant level goal of 0.2 milligrams per liter (mg/L) (USEPA, 1998), as there is no specific maximum contaminant level for cyanide in New York State. As noted in the Clarification of Free and Total Cyanide Analysis for Safe Drinking Water Act Compliance documentation (USEPA, 2020), the maximum contaminant level limit of 0.2 mg/L applies specifically to free cyanide.

2.1.4 Precipitation Data

To support the assessment of groundwater elevations and concentration trends, precipitation and other weather data are collected daily at the Massena International Airport weather station. The recommended citation for data obtained from this station is Menne et al. (2012). The daily and cumulative precipitation data for the year are included in **Appendix G**.

2.1.5 Data Quality Review

Data quality assessments using the analytical results provided by the laboratory were conducted by CDM Smith Inc. Complete data quality assessments for March, June, September, and December sampling events are included in **Appendix E**.

Project-generated quality control samples (i.e., field duplicates and field blanks) were reviewed and included in the data quality assessment. The following quality control methods or data were reviewed for each sample event:

- Laboratory method blank results
- Matrix spike/matrix spike duplicate samples
- Surrogate spike recoveries
- Laboratory control sample
- Sample holding time summaries
- Sample receipt conditions

3 Hydrogeologic Conceptual Site Model

An updated HCSM for the Site was provided in the *2021 Annual Periodic Review Report* (EHS Support, 2022b) and is summarized below. Investigations completed over the year (as described above) have not indicated a need for modification to the HCSM. Further assessment will be included in future reports.

3.1.1 Geology

Soils at the Site include:

- Fill – primarily in the PSP and North Yard
- Alluvium – primarily in the North Yard adjacent to the St. Lawrence River
- Marine/Lacustrine Orange-Brown Sand – on the northern edge of the BMP, beneath the PSP, and portions of the North Yard
- Marine/Lacustrine Clay – primarily beneath the ILF and BMP
- Winnowed Till – between the BMP and ILF
- Grey Glacial Till – Site-wide

The general stratigraphic relationship of the deposits is provided in **Figure 3-1**, and the approximate distribution is shown on **Figure 3-2**. The following summarizes pertinent features of the soil units identified at the Site.

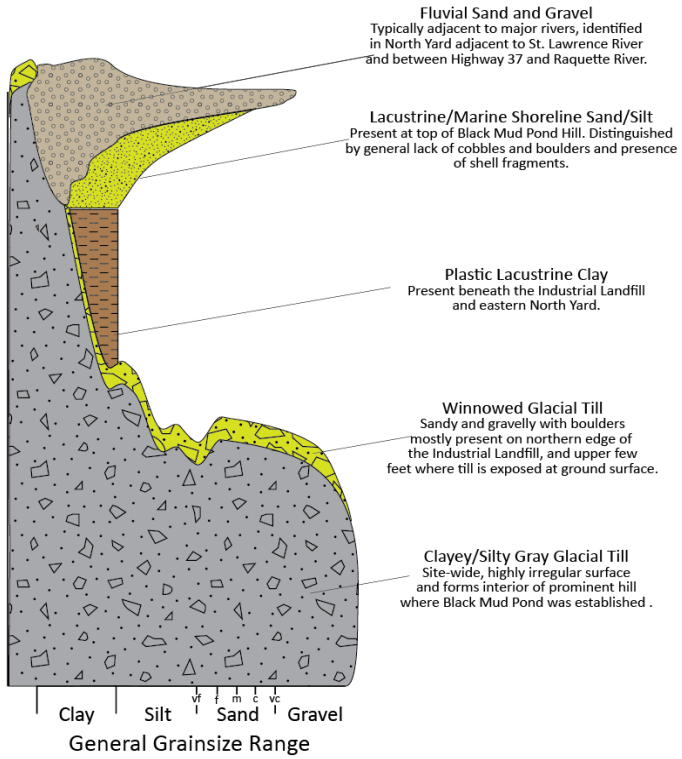


Figure 3-1 Schematic Stratigraphic Section Showing Relationships and Generalized Grain Sizes of Deposits Identified at the Site

3.1.1.1 Gray Glacial Till

Grey glacial till has overall low permeability (1.1×10^{-4} to 4.86×10^{-9} centimeters per second [cm/sec]); precludes lateral migration of groundwater through this unit; and, coupled with lacustrine clay, forms the base of the shallow groundwater flow system at the Site. Gray glacial till is stratigraphically the lowest unit encountered at the Site and has variable surface topography. The prominent ridge at the BMP is a ribbed moraine primarily consisting of grey glacial till encountered at elevations of 225–235 feet (ft) relative to the National Geodetic Vertical Datum of 1929 during drilling.

At the northernmost extent of the Site (the western edge of the North Yard), grey glacial till is encountered at about 10 ft below ground surface (bgs) (at approximately 200 ft in the National Geodetic Vertical Datum of 1929) beneath MW-43 and MW-44. The grey glacial till dips eastward below lacustrine/marine clay and has not been encountered south of the ILF.

3.1.1.2 Lacustrine/Marine Clay

Lacustrine clay is encountered regionally at low points surrounding ridges and drumlins of glacial till. At the Site, lacustrine clay is identified at the base of the BMP ridge beneath the ILF, beneath the North Yard, and at the PSP. The unit has permeability as low as 10^{-10} cm/sec and provides a barrier to vertical and lateral groundwater migration where present.

At the ILF, lacustrine clay is described beneath refuse on the logs for borings LFB-1 through LFB-5, LFBB-1 through LFBB-4, and TB-4 (Woodward Clyde, 1990). Lacustrine clay is also identified at the southern edge of the ILF in the logs for wells MW-39S, MW-40S, PZ-7, and PZ-11. The lacustrine clay is distinctive from glacial till clay intervals in that they are typically brown rather than gray in color, distinctively plastic, contain organic matter and shells, intervals of gravel, cobbles, and/or boulders are rare or absent[2]. The permeability is typically much lower than glacial till (as low as 1.0×10^{-10} cm/sec). The presence of this clay unit beneath the ILF prevents downward percolation of landfill-impacted groundwater but also provides a surface over which groundwater may flow to the lowest point. The lowest point is the southwest corner of the ILF, an area that was excavated as part of the Wetland OU-4 remediation before closure and capping of the ILF.

At the BMP, plastic lacustrine clay is also identified in the logs for borings MPOF1403D and MPOG1603D in a thin interval directly underlying the refuse and overlying gray glacial till. The implication is that hydraulic conductivity beneath the BMP is lower than the lateral hydraulic conductivity to the west at MW-13S and north at MW-12S, favoring lateral groundwater flow in these locations and restricting vertical groundwater flow.

3.1.1.3 Winnowed Till

Winnowed till is formed from glacial till through winnowing by lake/marine wave action. The process washes away fine particles from till and leaves coarser grains behind. The resulting soils are more permeable than undisturbed glacial till and provide a pathway for lateral groundwater flow where present. Indeed, some of the higher permeability values reported for glacial till at the Site are from areas of winnowed till. At the Site, winnowed till is present between the BMP and the northern edge of

[2] Note: Ice-rafted gravel and boulders are periodically encountered in lacustrine/shallow marine deposits in this area, so the occurrence is not a definitive indicator of glacial till.

the ILF. The unit is described as sandy and there is a higher incidence of cobbles and boulders as reported on the 2010 to 2012 logs for extraction wells EW-01 through EW-06.

3.1.1.4 Lacustrine/Marine Silt and Silty Sand

The permeability of this unit is relatively high with values of 10^{-3} cm/sec, providing a key control on lateral groundwater flow at the Site. This unconfined unit also facilitates substantial concentration reductions (attenuation) through infiltration of precipitation and snowmelt over the intervening space between the OUs.

The log for boring MW-12D[3] shows at least the uppermost 8 ft of sediment on the BMP ridge consists of silt and silty sand with varying proportions of sand and gravel that contain shell fragments. The permeability of the unit (1.0×10^{-3} cm/sec at MW-13S; Woodward-Clyde, 1990) is higher than the measured permeability on samples of the underlying till (average of 1.0×10^{-6} cm/sec). Similar deposits without shell fragments on the BMP ridge are described in the logs for PZ-32 through PZ-35; PZ-37; PZ-38; PZ-41 through PZ-43; MW-12S; MW-13S; MW-13D; MW-14S; MW-15D; and MW-15S.

At the PSP, the log for PZ-28 identifies an interval from 8–10 ft bgs of coarse sand with shells. A similar sand interval without shells is identified at 12–16 ft bgs in PZ-23; 5–10 ft bgs in PZ-24; 8–12 ft bgs in PZ-25; 8–9 ft bgs in PZ-27; 8–9.5 ft bgs in PZ-29; 8–9.1 ft bgs in PZ-30; and 6–8 ft bgs in PZ-31.

3.1.1.5 Fluvial Deposits

North of the Pitch Pump House and adjacent to the St. Lawrence River, specifically at borings MW-36S, MW-37S, and MW-38S, the area is underlain by an estimated 4 ft of fill, and an interval of cobbles and boulders up to 12 ft bgs. This fill is interpreted as fluvial in origin due to its stratigraphic position overlying plastic clay, which is interpreted as lacustrine or marine in origin. Fluvial deposits have also been identified through drilling investigations between Highway 37 and the Raquette River (ATL, 1972).

3.1.1.6 Fill

Excavation and fill activities occurred at the Site during construction of the Plant and during remediation activities. Exclusive of refuse placed in the BMP and ILF, fill was typically obtained locally from borrow pits at the Site. The largest area of grading occurred at the plant where pot rooms were operating. Primary areas of excavation for remediation occurred at the PSP and North Yard areas. Fill material in these locations typically has a high permeability of 1.4×10^{-1} to 4.6×10^{-2} cm/sec (Woodward Clyde, 1990). The West Ditch Outfall lies between the PSP and the St. Lawrence River and was remediated with the additional OU-6 areas.

Key elements of the updated geologic model are shown in **Figure 3-2**.

[3] Boring logs available upon request.

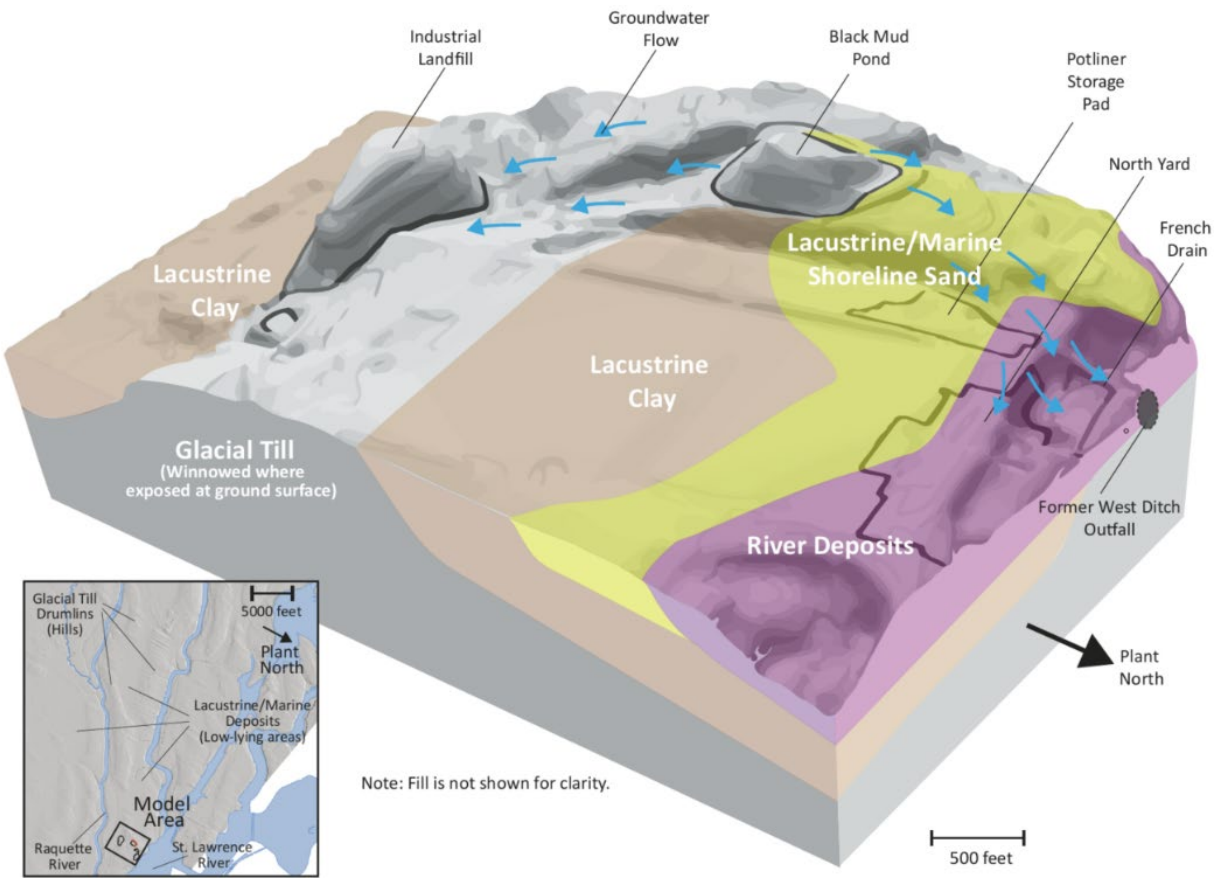


Figure 3-2 Revised Conceptualization of Site Geology

Note: The areas of construction and remediation fill are not shown to provide clarity for the geologic relationships. Figure 3-2 is not to scale and is vertically exaggerated. Spatial locations of **units are highly generalized and for illustrative/conceptualization purposes only**.

3.1.2 Hydrogeology

Groundwater at the Site is recharged by precipitation, as is apparent in the seasonal variations of groundwater elevations. Conceptually, precipitation and snowmelt infiltrate into more permeable surficial deposits (e.g., winnowed till, lacustrine/marine silt and silty sand, fluvial deposits, and fill). This recharge results in some lateral flow from the areas of residual contamination but also provides for reductions in concentration from infiltration downgradient of source areas.

Two primary groundwater flow pathways are present at the Site; both originate at the BMP. One flow pathway is south toward the ILF, and the other flow pathway is northward toward the St. Lawrence River. Shallow groundwater also flows westward from the BMP toward the wetland (located west of the BMP). The revised understanding of the groundwater flow system implies that downward vertical groundwater infiltration into glacial till is limited, and that lateral groundwater flow within the glacial till is minimal. This is critical in terms of the contaminant transport as only vertical migration of groundwater and/or diffusion can account for contaminants detected in the glacial till.

3.1.2.1 Lateral Groundwater Flow

Surficial deposits that blanket grey glacial till (excluding low-permeability lacustrine/marine clay) are the primary pathways for lateral groundwater flow based on hydraulic conductivity values. Consistent with surficial deposits controlling lateral groundwater flow, the water table is observed to mimic surface topography (**Figure 4** and **Figure 5**). These lines of evidence reinforce that downward vertical groundwater infiltration into glacial till is limited, and that lateral groundwater flow within the glacial till is minimal.

3.1.2.2 Vertical Groundwater Flow

Vertical groundwater gradients have been historically assessed at eight shallow/deep well pairs in the vicinity of the BMP.

In the interior of the BMP, the shallow and deep MPOF well pair screens are separated by several feet of clay that prevents vertical groundwater flow; therefore, apparent upward vertical gradients that have been historically reported reflect the efficacy of the BMP underdrain system for dewatering the interior of the BMP, as well as the efficacy of isolating the interior of the BMP (near the clay layer) from confined groundwater beneath the BMP.

Variations in vertical gradients are a function of more rapid, lateral groundwater discharge through the shallow permeable units, rather than a function of appreciable vertical seepage. This concept was demonstrated in the *2021 Annual Periodic Review Report* (EHS Support, 2022b), where the time for 10 ft of vertical seepage was calculated to range from hundreds of years to tens of thousands of years. This result is consistent with the hydrogeologic conceptualization whereby impacts in till are diffusion driven and primary groundwater flow is lateral and within more permeable surficial units. Consequently, numeric calculation of vertical groundwater gradients is of little value and are not calculated.

3.2 Precipitation

Annual precipitation data are included in **Appendix G**. The annual precipitation rate from 1990 to 2023 averaged 33.01 inches per year. The East Massena area received 33.53 inches of precipitation through the year, which amounts to 0.52 inches more than the average annual amount. Monthly precipitation during 2024 ranged from 0.45 inches (February) to 7.19 inches (August). Variation in the amount and timing of precipitation affects the amount of groundwater recharged; therefore, changes in water level elevations, particularly in the shallowest and most permeable units, will occur. The largest monthly precipitation measurements during the year were recorded during the months of June, July, and August.

3.3 Groundwater Elevations

During the post-closure sampling events, groundwater elevations were measured at select monitoring wells and piezometers throughout the Site. Groundwater elevation contours were constructed using data from the shallow wells and piezometers collected in the spring (March) and fall (September), and are presented in **Figure 4** and **Figure 5**, respectively. These figures were developed from the measured groundwater elevations presented in **Table 3** through **Table 6**.

In general, groundwater elevations are highest on the north side of the BMP and decrease outward toward the St. Lawrence River to the north, the wetlands south of the ILF, east to the plant, and to the west. The hydraulic heads in the BMP are affected by a low-permeability barrier that was constructed around the unit, which resulted in mounding. Further discussion on the groundwater elevations and hydraulic gradients for each OU are discussed in **Section 4** through **Section 8**.

Groundwater elevation contours, **Figure 4** and **Figure 5**, indicate a groundwater divide is present near the northwest corner of the BMP. The groundwater divide in this area is partially associated with the low-permeability barrier wall that was constructed on the northern and western sides of the BMP, as well as the Site surface topography (Calocerinos & Spina, 1985).

3.4 Fluoride Concentration Distributions

Fluoride concentration contours are provided as **Figure 6** and **Figure 7**. Fluoride is specifically discussed as it has the broadest distribution in groundwater at the Site. The highest fluoride concentrations occur at the BMP and PSP. At the BMP, detections around the periphery reflect diffusion throughout the low-permeability perimeter wall and seepage of groundwater to the south. At the PSP, soil removal was conducted to remove PCB-impacted soils, but residual wastes containing fluoride may be located outside/below the limits of previous investigation.

As indicated on **Figure 6** and **Figure 7**, fluoride concentrations rapidly attenuate to below the standard of 1.5 mg/L over short horizontal distances. In the context of the HCSM, fluoride is transported from source areas through the shallow advective groundwater flow system where concentrations attenuate over short horizontal distances. The primary mechanism for attenuation is precipitation and snowmelt infiltration into the shallow advective groundwater flow system in unpaved areas. Monitoring well MW-56 was installed between the BMP and PSP to verify that fluoride sourced from the BMP attenuates before reaching the PSP; monitoring well MW-10S serves the same purpose for the groundwater flow system between the BMP and ILF. Results from MW-56 to date indicate that constituents leaving the BMP are attenuated prior to reaching the PSP.

Monitoring wells MW-48 through MW-52 and MW-54 were installed downgradient of the PSP and North Yard to verify constituents attenuate before migrating further downgradient. As indicated in **Table 10** and consistent with the HCSM, fluoride was below the standard of 1.5 mg/L in groundwater samples from these wells in 2024 indicating that constituents sourced from residual impacts at the PSP are not migrating significantly downgradient.

4 Industrial Landfill (OU-1)

The 11.5-acre ILF is located south of the former production area of the plant and immediately north of the wetlands area. The ILF historically received plant garbage and process waste, construction debris, spent potliner, and sewage sludge. Waste management activities were permanently terminated at the ILF on June 30, 1990.

As documented in the *Area-Specific Completion Report for the Remediation of the Landfill/Former Potliner Storage Area* (Bechtel, 1997a) and *Overall Completion Report for the Alcoa Massena East Smelter Plant Site Remediation Project* (Bechtel, 2003b), ILF closure activities were conducted in accordance with the Order on Consent dated September 9, 1987, and with the associated ROD. These activities included the construction of an upgraded groundwater leachate recovery system keyed into highly impermeable material below the ILF in 1997 and placement of a hazardous waste landfill cap over the ILF in 2003.

The leachate collection system included the construction of a perimeter leachate collection trench, with a portion of the ILF perimeter also having a cutoff wall keyed into the low-permeability subsoils. A double-walled leachate transfer line from the ILF to the (now former) Outfall 01A treatment system was also installed. Groundwater currently collected by the leachate collection system is monitored weekly for flow at Outfall 01C, and water quality is monitored monthly per the SPDES permit requirements. All water collected through Outfall 01C is currently treated at the SPDES-regulated Outfall 003 treatment system.

The landfill cap constructed over the full extent of the ILF comprises a geosynthetic clay layer, a 40-mil very low -density polyethylene geomembrane, and drainage Geo composite. In addition, surface water controls were installed to reduce the amount of surface water run-on entering the ILF and to control erosional effects of surface water running off the ILF.

Before placing the cap, impacted soils and sediment from the Wetlands, PSP, and Miscellaneous Areas were consolidated in the ILF. As documented in the *Overall Completion Report for Alcoa. Massena East Smelter Plant Site Remediation Project* (Bechtel, 2003b), a ROD amendment was issued by NYSDEC in 1995, allowing Reynolds Metals Company to increase the PCB limit from 25 parts per million (ppm) to 50 ppm on low-level contaminated soils that could be placed in the ILF before capping (NYSDEC, 1995).

Materials consolidated in the ILF included the following:

- Two ft of potliner-impacted soils immediately north of the ILF and within the New York Power Authority easement were placed in the ILF. This action, performed under Field Change Request (FCR)-190, reduced the size of the ILF management area by more than two acres. Some potlining material was inaccessible and remained in-place following the remedial effort.
- Impacted soils from the wetlands, the area north of Haverstock Road, the Rectifier Yard and associated ditch, the North Yard, the PSP, the 002 Diversion Area, and other various on-site remedial efforts were placed in the ILF.
- An area identified in 1998 as a former short-term storage area for potliner and other process material (known as the “Former Material Stockpile Area”) was managed and remediated under the ILF area of concern. This ¼-acre area was sampled under FCR-199 and remediated under FCR-200. The work was documented and reported in the *Post-Remedial Report for Second*

Quarter 1998[4] and in the *Landfill Cap Installation Addendum to the Area-Specific Completion Report for the Remediation of the Landfill/Former Potliner Storage Area* (Bechtel, 2003a). The available FCR information has been provided as an appendix in previous annual monitoring reports (e.g., CDM Smith, 2020).

- In 2001 and 2002, dredging spoils with less than 50 ppm PCBs from the St. Lawrence River were disposed of in the ILF, and the ILF was closed with a hazardous waste closure cap to reduce stormwater/surface runoff infiltration and resultant leachate generation. Disposal of river dredging spoils in the ILF, and installation of the closure cap, are documented in the *Landfill Cap Installation Addendum to the Area-Specific Completion Report for the Remediation of the Landfill/Former Potliner Storage Area* (Bechtel, 2003a). Construction quality assurance associated with this work is documented in the *Construction Quality Assurance Certification Report for the Landfill/Former Potliner Storage Area Closure Cap* (Bechtel, 2003c).

The total quantity of excavated material from remediation activities that were disposed of in the ILF is approximately 220,000 cubic yards (CY). Table 1 from the *Landfill Cap Installation Addendum to the Area-Specific Completion Report for the Remediation of the Landfill/Former Potliner Storage Area Closure Cap* (Bechtel, 2003a) summarizes the quantities of material from on-site remedial actions that are disposed of in the ILF. Additional details can be found in the Site-specific remediation completion reports.[5]

Between November 2010 and May 2012, a series of upgradient groundwater extraction wells (EW-01 through EW-06) were installed north of the ILF to lower shallow groundwater elevations beneath the ILF and are referred to as the Outfall 010 groundwater extraction system (**Figure 8**). Extraction well EW-03 was never operational and was abandoned due to poor water production (CDM Smith, 2012). In addition to the extraction wells, piezometers (PZ-71 through PZ-79) were installed to monitor groundwater elevations. Extracted groundwater from this system is discharged through SPDES-regulated Outfall 001. In October 2018, a new building was erected for the extraction well lines, performing needed updates and repairs. The extraction wells continue to pump and discharge to the same location.

Key post-remediation activities include maintaining the cap, leachate collection and treatment. Inspections, maintenance, and groundwater monitoring are also required (per the Basis of Design Report submitted to NYSDEC on January 27, 2012)[6] for the Outfall 010 groundwater extraction system. The groundwater extraction system became operational in Summer 2012. **Figure 8** shows a plan of the ILF and the associated groundwater wells and piezometers used for monitoring. The following items require periodic inspections:

- ILF cap
- Leachate collection system
- Upgradient extraction wells

[4] Reference information is not available; this is legacy text pulled from an earlier report that was not written by EHS Support.
[5] These Site-specific remediation completion reports are referenced in **Section 10** under Bechtel (1992, 1995a-c, 1996, 1997a-c, 1998a and b, 1999, 2003a-c).
[6] Reference information for the Basis of Design Report is not available; this is legacy text pulled from an earlier report that was not written by EHS Support.

4.1 Operations

Annual operations consisted of the collection of 5,956,437 gallons of groundwater by the leachate collection system. The monthly quantities tabulated in **Table 7** reflect the ILF (Outfall 01C) flowmeter readings. A plot of the cumulative flow recovered and treated from the ILF, starting with the 32,130,235 gallons on record in January 1999, is presented in **Figure 9**, and monthly flow totals for January 1999 through the end of this reporting period are presented in **Figure 10**. All water collected from the ILF was treated at the Outfall 003 wastewater treatment system on-site.

Approximately 1,359,800 gallons of groundwater were collected by the upgradient extraction well system (EW-01, EW-02, EW-04, EW-05, and EW-06) in 2024, compared to 1,634,530 gallons in the previous year (**Table 8**). As indicated, all water collected from upgradient of the ILF was conveyed to and discharged at Outfall 001. Note that in 2024, records of flow from EW-05 are lower than actually accomplished due to equipment failure as described in **Section 4.2**

Monthly flowmeter readings for each extraction well are provided in **Table 8**, and cumulative flow is presented graphically in **Figure 11**. Four of the five extraction wells remained operational throughout the entire year. EW-05 experienced issues with its transducer in January and power supply in July, outlined in **Section 4.2**. Total cyanide (as opposed to free cyanide) and fluoride are monitored monthly in each extraction well to verify contributions to the SPDES-regulated outfall where water is discharged. Monitoring of these analytical parameters is specifically listed on the SPDES permit. Groundwater analytical data collected at the extraction wells is presented in **Table 9**.

Inspections were performed on the final cap at the ILF twice this year (April and October). This included inspection of the cover system for evidence of vegetative deterioration, erosion, siltation, ponding, uplift, washouts, leachate breakout, and rodent holes. The culverts, swales, check dams, and riprap were included in the biannual inspections. The functionality of these systems was inspected and showed no evidence of scouring, overland flooding, or erosion. The inspection showed that inlets and outlets remained unobstructed and positive drainage has been maintained. No problems were noted.

4.2 Maintenance, Repairs, and Modifications

The following non-routine repairs were performed on the groundwater extraction systems and ILF during the year:

- The EW-05 transducer was investigated in January after reported flow volumes differed from what was observed. The transducer was replaced in February and began to function properly. The EW-05 transducer was evaluated in July after recording a period of no flow. It was determined that no power was being delivered to the pump controller. The issue was resolved on August 5, 2024. Water level elevations are suspected to have caused the electrical issue.
- The EW-04 flowmeter recorded no flow throughout the month of December. An investigation into the issue will occur in the spring of 2025 when the pump can be pulled and evaluated.

4.3 Groundwater Monitoring

4.3.1 Groundwater Elevations and Hydraulic Gradients

Groundwater elevations at monitoring wells MW-10S, MW-39S, MW-40S, and MW-45 have been measured quarterly between 18 and 27 years; the stability is well established. Only the spring and fall measurements are currently utilized for developing groundwater elevation contours. Groundwater elevation contours that are based on wet and dry weather measurements collected in April and December 2024 are presented in **Figure 4** and **Figure 5**, respectively.

Groundwater flows under the ILF in a general southward direction. Shallow groundwater is collected in the perimeter drain leachate collection system. Five transects of piezometers are installed across the perimeter drain:

- Transect 1 consists of PZ-1 through PZ-5.
- Transect 2 consists of PZ-6 through PZ-9.
- Transect 3 consists of PZ-10 through PZ-13.
- Transect 4 consists of PZ-14 through PZ-17.
- Transect 5 consists of PZ-18 through PZ-22.

Tabulated groundwater elevation data for the piezometers, including the invert elevations of the perimeter drains, are presented in **Table 4**. **Figure 12** shows plots of groundwater elevations in downgradient wells MW-39S and MW-40S compared to elevations in the nearby piezometer clusters located at the landfill boundary.

Groundwater elevations at the piezometers were measured monthly. The groundwater elevation data shows that in 2024, the perimeter drain inverts were consistently lower than the groundwater elevations of all piezometers in Transects 1, 2 and 3 indicating the capture in these transects was effective. As indicated in **Figure 4** and **Figure 5**, piezometers in Transect 5 are within the radius of influence of extraction well EW-1, indicating hydraulic containment and remedy effectiveness in this location. The inverts of the perimeter drains were higher than groundwater elevations in the Transect 4 piezometers during the end of the year, indicating that groundwater may not have been completely captured in the southwest corner of the ILF (**Figure 12**); however, there was a consistently inward gradient throughout 2024 from the wetland toward the perimeter trench as recorded in decreasing groundwater elevations from MW-39S to PZ-17 to PZ-16 (**Figure 12**). These observations for the current year are generally consistent with historical observations in this area.

4.3.2 Groundwater Quality

Groundwater samples were collected and analyzed quarterly from monitoring well MW-10S, located upgradient of the ILF, and from monitoring wells MW-39S, MW-40S, and MW-45 which are located downgradient of the ILF. Surface water samples were also collected quarterly from the western wetlands (SLPWETW) and eastern wetlands (SLPWETE) which are downgradient of the ILF. These groundwater and surface water sampling locations are the only ones at the Plant that are assessed on a quarterly basis, and the dataset extends to between 18 and 27 years of quarterly sampling data. Analytical results are provided in **Appendix C**. Analytical results and trend analyses are summarized in this section and **Table 4-1** using the methods detailed in **Section 2.1.3**. The statistical summary of the

groundwater monitoring results is provided in **Table 10**. A summary of concentration trend results compared to post-Plant closure period are provided in **Appendix D**.

A review of post-plant closure data indicates statistically significant increasing concentration trends of fluoride at MW-39S and sulfate at MW-45. All four sampling events at MW-39S were above the New York State Water Quality Standard (NYSWQS) of 1.5 mg/L for fluoride. Groundwater gradients at MW-39S are toward the ILF perimeter trench, and MW-45 to the south does not have fluoride exceedances, indicating concentrations are not migrating toward the wetland. Sulfate concentrations have been consistently above the NYSWQS of 250 mg/L since 2015 in MW-45; however, a notable change in the sulfate at this location is apparent on the time series chart (**Appendix D**) shortly after the extraction well system started functioning upgradient of the ILF. One possibility is that a change in hydrology following implementation of the extraction well system modified redox conditions in the wetland, and the sulfate may be sourced from sulfide oxidation occurring in the wetland. There is currently an inward groundwater gradient from this location toward the ILF perimeter trench that will continue to be monitored.

Statistically significant decreasing concentration trends were observed for sulfate in MW-10S and for fluoride in SLPWETW. In addition, the concentration trends of fluoride at MW-45 and sulfate in SLPWETW are probably decreasing.

The groundwater monitoring results for free cyanide were below the NYSWQS of 0.2 mg/L in the collected ILF groundwater samples.

Table 4-1 ILF Groundwater Monitoring Results

ILF Monitoring Points	Monitoring Well	PCBs	Free Cyanide	Fluoride		Sulfate	
		Frequency of Detection	Frequency of Detection	Frequency of Detection	MK Trend	Frequency of Detection	MK Trend
Upgradient	MW-10S	0/4	1/4	4/4	S	4/4	D
Downgradient	MW-39S	0/4	1/4	**4/4**	I	4/4	S
	MW-40S	0/4	0/4	4/4	S	4/4	S
	MW-45	0/4	3/4	4/4	PD	**4/4**	I
Wetlands	SLPWETE	0/4	1/4	**4/4**	S	4/4	NT
	SLPWETW	0/4	3/4	4/4	D	4/4	PD

Notes:
Bold = average concentration from samples above the NYSWQS
>50% ND = greater than 50 percent of non-detect level
D = increasing
I = increasing
NT = no trend
PCB = polychlorinated biphenyl
PD = probably decreasing
PI = probably increasing
S = stable

4.3.3 Outfall 010 Groundwater Extraction System

Groundwater level measurements are collected at EW-01 through EW-06 and PZ-76 through PZ-79. Groundwater levels were recorded monthly at all locations to verify the groundwater extraction system capture area. Gauging was not completed when frozen conditions or access issues were present. These groundwater elevations are displayed in **Table 4** and shown on **Figure 13**.

The five extraction wells remained operational throughout the year aside from issues with EW-05 outlined in **Section 4.2**. Groundwater levels presented on **Figure 13** show that the extraction wells have consistently maintained the groundwater elevation to the north of the ILF. **Figure 4** and **Figure 5** show groundwater elevations are lowered north of the ILF by the extraction well system.

In 2024, the average groundwater level in PZ-76 through PZ-79 ranged from 205.25–207.21 ft (**Table 4**). The largest fluctuations were observed in PZ-76, where levels ranged from 199.92–217.64 ft. These fluctuations are due to the operational status of the pump in proximal well EW-05. The average groundwater elevation observed while extraction wells were functioning ranged from approximately 187.75 ft in EW-06 to approximately 198.18 ft in EW-02.

In addition to groundwater level measurements, quarterly groundwater samples are collected at each extraction well and analyzed for total cyanide and fluoride. Data was collected on a monthly basis in 2013 and has been collected on a quarterly basis for the last 10 years; the concentration stability is well established. The analytical data for all completed testing (i.e., from when the system started to the end of 2024) are reported in **Appendix C**. Analytical results for the year are provided in **Table 9**. Fluoride concentrations were below the NYSWQS of 1.5 mg/L in each of the extraction wells, with the exception of EW-02. Fluoride was detected at 1.59 mg/L in the February event, 1.93 mg/L in the May event, and 1.47 mg/L in the August event. Fluoride concentrations were 0.26 mg/L during the November event at EW-02, which is below the standard.

4.3.4 Post-Closure Assessment

Based on the groundwater contours and within the physical and hydraulic restrictions of the Site setting, the groundwater monitoring well network is adequately configured to assess post-closure conditions at the Industrial Landfill.

Groundwater quality downgradient of the ILF at MW-39S and at the wetland surface water monitoring location SLPWETE may be affected by historical transport of contaminants from the ILF that occurred prior to construction of the perimeter trench and capping of the landfill. At MW-39S, the groundwater gradient is toward the ILF perimeter trench, suggesting that the ILF is not the fluoride source. Further south into the wetland, fluoride at MW-45 is below criteria.

Sulfate increased from low, consistent levels in MW-45 to above the NYSWQS standard in September 2015. Concentrations have remained above the NYSWQS since then and have displayed a statistically significant increasing trend (**Appendix D**). The notable increase in sulfate concentrations and the shift to increasing trends in 2015 follows initiation of the extraction well system in late 2012. As described in the *2022 Annual Report* (EHS Support, 2023), the sulfate increase corresponds to historical data for total cyanide decreases, suggesting that the sulfate source may not be the ILF and may reflect natural processes occurring in the wetland surrounding MW-45.

Downgradient groundwater will continue to be monitored in MW-39S, MW-40S, and MW-45, and will be used to evaluate the effectiveness of the upgradient groundwater extraction system. Surface water will continue to be monitored in the east and west wetlands.

5 Black Mud Pond (OU-2)

The BMP was built in 1973 to store residue from the process that recovered cryolite from spent potliner. Slurry from the cryolite recovery process was pumped to the pond, allowed to settle, and the supernatant was then pumped to the cryolite recovery plant. It is approximately 6 acres in area and located on a ridge west of the former production area of the Plant. In 1985, seepage was observed from the northwest corner of the BMP through deposits overlying gray till at approximately 10 ft bgs. An 8-ft-wide trench was excavated along the entire north and west sides of the BMP, extending into the underlying lower-permeability till. A containment wall was constructed in the trench from sorted (silt and clay fractions) of glacial till taken from a borrow pit west of the BMP, which was compacted to 95 percent (Calocerinos & Spina, 1985). Active use of the pond ended in 1990. The primary objective of remediating the BMP was to eliminate migration of the constituents of concern (COCs), specifically cyanide and fluoride.

After NYSDEC approval in May 1995, soils from the PSP with PCB levels greater than 10 ppm, the area south of the Digging Building (building 85), and the overburden by the southwest corner of the BMP were placed in the BMP to provide initial soil cover for construction equipment. In January 1996, 7,700 CY of wetlands soil with residual fluoride and cyanide were excavated and hauled to the BMP. The area was capped with a hazardous waste closure cap to isolate the waste and prevent surface water infiltration. The cap consists of a geonet composite for gas collection, a geosynthetic clay layer, a geomembrane liner of 40-mil linear low-density polyethylene, a geonet composite for drainage, and 30 inches of topsoil and grass cover. Additional remediation activities are detailed in the *Area-Specific Completion Report for the Remediation of the Black Mud Pond* (Bechtel, 1997b).

A network of over 2,200 linear ft of sand-filled French drains was installed in the BMP to extract groundwater and reduce a principal mechanism of contaminant transport from the area (Bechtel, 1997b). This French drain system consists of four horizontal drains that were installed in a north-south direction with a gradual slope to the south end. Two lateral drains were installed in an east-west direction to improve the collection capability of the system. A polyvinyl chloride riser was installed at the south end of each north-south drain. This work was completed in September 1995. A dewatering sump was installed at the lowest point of the BMP (near the southwest corner) following construction. The riser at the westernmost north-south drain line was replaced with a pipe that connected the line to the sump. A sand-filled trench was built along the bottom of the BMP between the sump and the risers to provide a hydraulic connection with the other three north-south drain lines.

The BMP cap was completed in 1997 and the transfer line was operational from 1997 to 2004. Upgrades to the leachate transfer line occurred in 2004. The upgraded pumping system transfers groundwater from the dewatering sump to the Outfall 01B equalization tank. Beginning in 2003, groundwater pumped to the Outfall 01B tank was transferred by tanker truck to the Massena West Plant Outfall 01F for treatment and discharge, as the cyanide destruction treatment system was decommissioned and removed with NYSDEC approval. Beginning in September 2017, BMP groundwater has been collected and transferred via railcar to an off-site treatment and disposal facility and is no longer treated at the Massena West Plant.

Key post-remediation activities include maintaining the cap, collecting and treating groundwater from the French Drain system, and conducting inspections and groundwater monitoring.

Figure 14 is a Site plan of the BMP and the associated groundwater wells used for monitoring. The following items require periodic inspections:

- Groundwater transfer line from the BMP dewatering sump to the storage tanks
- BMP cap
- Groundwater collection system

5.1 Operations

Annual operations consisted of the extraction, transfer, storage, and treatment of groundwater. BMP totalizers in extraction wells recorded that 9,912 gallons of groundwater was pumped from the BMP compared to 52,549 gallons in the previous year. This value was much lower than previous years, and no changes to operations or maintenance during the year was substantial enough to cause this drop in pumped groundwater. The flow totalizer appears to have begun malfunctioning late in 2023 but the problem was not identified until later in 2024. The totalizer was replaced on April 9, 2025. The recorded volume of pumped groundwater is presented in **Table 11** and shown graphically in **Figure 15** and **Figure 16**. Groundwater collected from the BMP is shipped off-site, and the total volume of shipments throughout the year was 61,164 gallons. The accumulated water was transported off-site in railcar shipments in April (20,266 gallons), August (20,897 gallons), and December (20,001 gallons). The volume of water shipped is similar to typical annual flowmeter readings.

The BMP groundwater collection system is operated automatically; the pumps convey water to Tanks 208, 211, and 216 (located in building 763D, which is the old water treatment building just west of the North Yard). Tank water levels are monitored routinely and, when close to full capacity, the water is pumped into a railcar for transport to an off-site treatment and disposal facility.

The groundwater collection system includes four horizontal drains (A-1 through A-4) that empty into a sand-filled trench. The groundwater then drains by gravity to the southernmost lateral drain, which also drains by gravity to the sump labeled “dewatering sump.” From this point, a submersible pump within the dewatering sump pumps groundwater to the collection point for shipment off-site.

The cover system was inspected twice a year for evidence of vegetative deterioration, erosion, siltation, ponding, uplift, washouts, leachate breakout, and rodent holes. The passive gas vents were checked for obstructions. Culverts, swales, check dams, and rip-rap were included in the biannual inspections. The functionality of these systems was inspected and showed no evidence of scouring, overland flooding, or erosion. The inspection showed that inlets and outlets remained unobstructed and positive drainage has been maintained.

5.2 Maintenance, Repairs, and Modifications

The following non-routine repairs were performed on the groundwater extraction systems and BMP during the year:

- The BMP pump was not functioning properly on August 1, 2024. A temporary pump was immediately installed and used until the original pump was operable after being replaced on August 19, 2024.

5.3 Groundwater Monitoring

5.3.1 Groundwater Elevations and Hydraulic Gradients

For reasons described in **Section 3.3**, vertical hydraulic gradients are not calculated. The MPOF and MPOG well clusters are located within the capped area of the BMP, and have historically been used to assess hydraulic heads and gradients within the BMP. Historical groundwater elevations are provided in **Figure 17**. The MPOF cluster is located on the western side of the waste zone, and the directions of the hydraulic gradients are consistent with the observation that there is often no water collected in the eastern drains under the BMP, whereas the westernmost drain is constantly pumped. The groundwater elevations were recorded monthly in the MPOF clusters.

Groundwater elevation contours for spring and fall 2024 (**Figure 4** and **Figure 5**, respectively) indicate that there is a hydraulic divide along the north and west sides of the capped BMP, consistent with the presence of the low-permeability barrier in this area. Horizontal hydraulic gradients are radial from the high points near MW-12S and MW-14S, but due to the presence of the barrier wall, there is negligible to no flow out of the BMP to the north and west. As discussed in **Section 3**, it is likely that groundwater on the periphery of the BMP is recharged by precipitation and snowmelt that infiltrates into an upper, shallow, and permeable interval that is the focus of groundwater advection. Groundwater in the less permeable underlying till is comparatively stagnant.

The horizontal hydraulic gradient of the BMP is to the north and groundwater eventually discharges to the North Yard French Drain and the St. Lawrence River. Hydraulic gradients to the south of the BMP are such that groundwater discharges to groundwater collection systems associated with the ILF and the wetland south of the Plant. Hydraulic gradients west of the BMP are to the southwest and the groundwater also discharges to the wetland south of the plant. This wetland eventually discharges to the Raquette River and is monitored as SPDES-regulated Outfall 010. The steepest hydraulic gradients are eastward between the BMP and the plant area.

Groundwater monitoring wells directly beneath the BMP (MPOF1403D and MPOG1603D), coupled with surrounding glacial till wells, indicate hydraulic gradients are to the south and east in the glacial till stratum beneath the BMP. Groundwater is removed from beneath the BMP cap by a system of underdrains. Based on the BMP completion report, these drains are located at the base of the black mud and on top of the underlying high-plasticity and low-permeability clay. Groundwater elevations in the two shallow wells screened across the black mud/clay interface (MPOF-1402S and MPOG-1601S) are lower than the deep counterparts (MPOF1403D and MPOG1603D) throughout most of the year, although each typically has a slightly higher elevation than the deep counterparts in winter (**Table 3**). Lower elevations in the shallow wells' interior to the BMP reflect the efficacy of the underdrain system for dewatering the BMP. The occurrence of a high-plasticity clay unit beneath the black mud precludes dewatering below the level of black mud but also precludes vertical groundwater advection beneath the BMP. The drainage system is expected to facilitate groundwater flow within the mud toward the drains.

5.3.2 Groundwater Quality

Using the methods detailed in **Section 2.1.3,** analytical results and trend analyses for groundwater samples collected around the BMP are summarized in the section and **Table 5-1**. Analytical results are provided in **Appendix C**. The statistical summary of the groundwater monitoring results, including the post-plant closure statistical trend analysis, is provided in **Table 10**. A summary of concentration trend results compared to post-Plant closure period are provided in **Appendix D**.

Statistically significant decreasing concentration trends were observed for fluoride at MW-12S and MW-30S. Both samples taken from MW-30S were above the NYSWQS of 1.5 mg/L for fluoride (4.3 mg/L and 6.0 mg/L). Decreasing concentration trends were found for sulfate at MW-11SR, MW-22-85-S, and MW-13S. The samples taken from MW-22-85-S and MW-13S were above the sulfate NYSWQS of 250 mg/L, with average concentrations of 904 mg/L and 418 mg/L, respectively.

Groundwater monitoring results for free cyanide were below the NYSWQS of 0.2 mg/L in the collected BMP groundwater samples.

Sulfate has statistically significant increasing concentration trends at MW-20-85-S and MW-23-85-S. Both monitoring wells had sulfate concentrations above the NYSWQS limit of 250 mg/L during both sampling events. The increasing sulfate trends are not accompanied with increasing fluoride trends; therefore, sulfate may be from another source (e.g., marine sediments). Both wells have had sulfate concentrations at or near the NYSWQS limit since 2008.

Fluoride concentrations had a statistically significant increasing trend at MW-15S-87 but concentrations (3.64 and 2.74 mg/L in Q2 and Q4, respectively) were similar or less at PZ-44, PZ-45, and PZ-46. The trend is stable in all these piezometers. Further downgradient at MW-20-85S, fluoride is below criteria and the trend is stable, indicating that attenuation is occurring via mechanism described in the HCSM.

Table 5-1 BMP Groundwater Monitoring Results

BMP Monitoring Points	Wells in Monitoring Point	PCBs	Free Cyanide	Fluoride		Sulfate	
		Frequency of Detection	Frequency of Detection	Frequency of Detection	MK Trend	Frequency of Detection	MK Trend
Eastside	MW-11SR	0/2	0/2	2/2	NT	2/2	D
Northside	MW-12S	0/2	2/2	**2/2**	D	**2/2**	S
Northside Downgradient	MW-22-85-S	0/2	0/2	2/2	S	**2/2**	D
	MW-56	–	0/2	2/2	–	**2/2**	–
Westside	MW-13S	0/2	0/2	**2/2**	S	**2/2**	D
	MW-14S	0/2	1/2	2/2	S	**2/2**	S
Westside Downgradient	MW-23-85-S	0/2	0/2	2/2	S	**2/2**	I
Westside Further Downgradient	MW-31-SR	0/2	0/2	2/2	S	2/2	S

BMP Monitoring Points	Wells in Monitoring Point	PCBs	Free Cyanide	Fluoride		Sulfate	
		Frequency of Detection	Frequency of Detection	Frequency of Detection	MK Trend	Frequency of Detection	MK Trend
Southside	MW-15S-87	0/2	0/2	**2/2**	I	2/2	S
Southside Piezometer	PZ-44	0/2	1/2	**2/2**	S	**2/2**	S
	PZ-45	0/2	0/2	2/2	S	**2/2**	S
	PZ-46	-	1/2	**2/2**	S	**2/2**	S
Southside Downgradient	MW-20-85-S	0/2	0/2	2/2	S	**2/2**	I
	MW-30S	0/2	0/2	**2/2**	D	2/2	S

Notes:
Bold = average concentration from samples above the NYSWQS
>50% ND = greater than 50 percent of non-detect level
D = increasing
I = increasing
NT = no trend
PCB = polychlorinated biphenyl
PD = probably decreasing
PI = probably increasing
S = stable

5.3.3 Post-Closure Monitoring Assessment

Based on the groundwater contours, the groundwater monitoring well network is adequately configured to assess post-closure conditions at the BMP.

Review of the *Area-Specific Completion Report for the Remediation of the Black Mud Pond* (Bechtel, 1997b) indicated that seepage from the BMP through a winnowed till layer was addressed in 1985 through the construction of an 8-ft-wide clay barrier wall. In addition, post-consolidation samples collected north of the capped portion of the BMP indicated some elevated residual fluoride concentrations. Historical releases may be responsible for the detections of cyanide, fluoride, and sulfate north and west of the closed BMP, as these are areas from which BMP materials were consolidated upon closure.

Attenuation of residual COCs occurs progressively in a downgradient direction by snowmelt and precipitation infiltration through the shallow permeable units, as indicated by concentration decreases in wells downgradient of the northerly and southerly BMP groundwater flow paths. This conceptualization is confirmed by monitoring well MW-56 that is situated along the northerly flow path and where fluoride results are below criteria. COC flux is limited in underlying lower-permeability units where groundwater advection is minimal. These lower-permeability units are present at shallower elevations along the southern edge of the BMP where COC migration is primarily driven by diffusion.

MW-11SR and MW-15S-87 are directly downgradient of the BMP along the eastern and southern edges, respectively. Sulfate was the only COC in MW-11SR that was above the NYSWQS but this was true for only one of the two samples and it displayed a statistically significant decreasing trend. Given that there

are no other COC exceedances in this location, sulfate may be sourced from back diffusion from sediments. Fluoride was the only COC above the NYSWQS in MW-15S-87 during both sampling events and displayed a statistically significant increasing trend using post-plant closure data. Downgradient of MW-15S-87, there were exceedances of fluoride and sulfate at PZ-44, PZ-45 and PZ-46, which are likely due to residual impacts from conditions prior to consolidation of the BMP, as these wells are screened in low-permeability till. The low hydraulic conductivity of these materials makes recent migration of impacts unlikely; attenuation due to infiltration into the more permeable shallow unit is occurring. Concentrations at these sampling locations, as well as MW-20-85-S located south of the piezometers, will continue to be monitored.

6 North Yard (OU-3)

The North Yard is located north of the main plant buildings. It was the center for receiving, storing, and distributing raw materials for the plant's operation. The North Yard was the location of the heat transfer medium (HTM) system that maintained the fluidity and temperature of the coal tar pitch for anode and cathode manufacturing. The HTM system equipment was located within the Pitch Pumphouse in the central portion of the North Yard; the HTM piping extends northward to the Pitch Pumphouse tanks and southward to the Carbon Plant. Before a replacement program was initiated in the 1970s, the HTM fluid contained PCBs. Soil analysis conducted by Bechtel shows that prior to remediation, the highest concentrations of PCBs at the Site were near the HTM system (Bechtel, 1998a).

To conduct remediation while minimizing disruption of plant operation, two distinct remedial construction plans were developed and described in the *Declaration for Amendment to the Record of Decision for Reynolds Metals Company St. Lawrence Reduction Plant* (NYSDEC, 1995). These plans divided the North Yard into the following critical and non-critical work areas:

- Area 1 was the south-central portion of the North Yard and was defined as the critical area where essential plant operations took place. The design required excavating to established limits (i.e., horizontally within the greater than or equal to 100 ppm PCB footprint and vertically to less than 25 ppm PCBs) and installing a low-permeability cap over all areas with residual PCB levels greater than or equal to 10 ppm. Area 1 covered 3 acres.
- Area 2 was defined as the contaminated, but non-critical, portion of the North Yard. The design for this area was similar to other on-site remediation areas, which is excavation of soils exceeding the ROD cleanup goal of less than or equal to 10 ppm PCBs, followed by surface restoration. Area 2 covered 7 acres.

Remediation construction met all design objectives. Although the ROD amendment allowed for higher residual concentrations of PCBs in Area 1, remedial excavations in 98 percent of that area met the more stringent cleanup goal established for Area 2 (129,900 ft^2 out of 132,500 ft^2 of excavated material in Area 1 met the more stringent Area 2 cleanup standards).

As stated in Volume 1 of the *Area-Specific Completion Report for the Remediation of the North Yard* (Bechtel, 1998a), various remedial measures were performed to reduce the possibility of erosion and transport of PCBs. In 1991, a drain consisting of a 12-inch-diameter, perforated polyethylene pipe and a trench filled with crushed stone, was installed along the plant fence located on the western side of the North Yard (North Yard French Drain). The underdrain system, intended to control groundwater near the ground surface, also influences the groundwater flow field in this area which is downgradient of the former PSP. This underdrain system discharges to the West Sump, which was installed in 1988. Water collected in the sump was historically pumped to the Outfall 01A wastewater treatment facility for treatment and discharged through the plant's SPDES outfall system. In January 2016, Reynolds Metals Company submitted an SPDES modification request to decommission the treatment plant and divert flows from Outfall 01A to Outfall 003 for treatment and discharge. On February 5, 2016, the NYSDEC approved the modification request.

The following additional remedial efforts have been conducted in this area since approval of the *Area-Specific Completion Report for the Remediation of the North Yard* (Bechtel, 1998a):

- In March 2000, an underground water main was repaired in North Yard grid H32 (south of building 25A, the Unloading Shed). The excavation spoils (approximately 25 CY of soil at 8 ppm

PCB concentration) were disposed of in the ILF in May 2000. Details are presented in the *Post-Remedial Report for Second Quarter 2000.*[7]

- In July 2000, PCBs were identified in the excavation spoils from the repair of concrete pavement covering North Yard grid G41. The area was investigated under FCR-204 and remediated under FCR-206. The broken concrete pavement (approximately 115 CY) and the soil from grids G42 and J44 (69 CY) were disposed of in the ILF. Additional spoils (92 CY) were disposed of off-site. This remedial effort was completed in August 2001 and reported in the *Post-Remedial Report for Third Quarter 2001*.[6]
- In the summer of 2001, sampling was conducted at the proposed Site for the new tank, located immediately east of the existing tank (building 65A) near the west end of the North Yard. Soil samples collected from beneath the concrete over the proposed excavation footprint showed PCB concentrations less than 4 ppm in the upper 6 inches and non-detections in the 24- to 30-inch depth interval. An excavation and disposal plan was approved by NYSDEC on October 30, 2001. The concrete layer and upper 2 ft of soil was excavated by the remediation contractor, after which the area was turned over to the Plant's general contractor for tank construction. The excavated soil (46 CY) was disposed of in the ILF. To formally record the work, FCN-209 was submitted to NYSDEC and approved on November 30, 2001. Details of the work are reported in the *Post-Remedial Report for Fourth Quarter 2001*.[6]
- The North Yard underdrain water was diverted from Outfall 01A to Outfall 003 for treatment and discharge in 2016.
- The North Yard French Drain pump was repaired in August 2019.

Key post-remedial activities include limited groundwater collection and treatment (West Sump), inspections, and groundwater monitoring. Periodic inspections of west and east sumps are required in this area. Plant personnel maintain the integrity of the secondary containment around the tanks in this area.

6.1 Operations

Operations consisted of collection, transfer, storage, and treatment of groundwater from French drains, along with surface water from secondary containment around the pitch tank, fuel oil tanks, and other tanks in the area.

6.2 Maintenance, Repairs, and Modifications

The North Yard French Drain pump was functional; no maintenance, repair, or modification activities were completed in this reporting period.

[7] Reference information for the quarterly post-remedial reports is not available; this is legacy text pulled from earlier, non-EHS Support reports.

6.3 Groundwater Monitoring

6.3.1 Groundwater Elevations and Hydraulic Gradients

Groundwater flows northerly under the western side of the North Yard and is influenced by the North Yard French Drain system located around the former pitch tanks. This groundwater collection system also recovers groundwater that moves downgradient from the PSP (**Figure 4** and **Figure 5**).

On the eastern side of the North Yard, there appears to be a groundwater divide near the former ore offloading building, which is defined by wells MW-19S and MW-17S. South of the divide, groundwater flows toward the former plant. This groundwater is monitored by MW-16S and MW-18S. North of the divide, groundwater flows to MW-36, MW-37, MW-38, and to the St. Lawrence River. A portion of the northerly flow appears to trend northeast toward MW-38 and MW-41. MW-48, MW-49, MW-50, MW-51, MW-52, and MW-54 monitor groundwater north of Haverstock Road. where it migrates from the North Yard and PSP area toward the St Lawrence River, downgradient of the North Yard French Drain.

6.3.2 Groundwater Quality

Analytical results and trend analyses for groundwater samples collected around the North Yard are summarized in this section and **Table 6-1** using the methods detailed in **Section 2.1.3**. Monitoring wells MW-48, MW-49, MW-50, MW-51, MW-52, and MW-54 were constructed in 2023 and do not currently have enough historical data to be included in the trend analysis. Detailed analytical results for all wells are provided in **Appendix C**. The statistical summary of the groundwater monitoring results, including the post-plant closure statistical trend analysis, is provided in **Table 10**. A summary of concentration trend results compared to post-Plant closure period are provided in **Appendix D**.

Fluoride had statistically significant decreasing concentration trends at MW-18S, MW-19S, and MW-36. One sample from MW-36 and both samples from MW-19S were above the NYSWQS of 1.5 mg/L (1.93, 2.99J, and 2.68J mg/L, respectively).

Statistically significant decreasing or probably decreasing trends for sulfate were observed in MW-16S, MW-18S, MW-19S, MW-36, MW-41, and FDRAIN1. Five (5) of the 10 monitoring wells designated as “northside downgradient” on **Table 6-1** had samples with sulfate concentrations above the NYSWQS criteria of 250 mg/L, while two of the six wells located further downgradient exceeded the criteria.

Results for free cyanide were below the NYSWQS of 0.2 mg/L in all North Yard groundwater samples.

Groundwater monitoring wells MW-48 through MW-52, MW-54, and MW-55 are located north of Haverstock Road and downgradient of the North Yard French Drain, and are used to verify attenuation of constituents. MW-55 is located north of Haverstock Road and downgradient of the treatment ponds. All wells north of Haverstock Road had COC concentrations below criteria in December 2024, except sulfate in MW-50 and MW-52 (318 mg/L and 286 mg/L, respectively). Given that fluoride is not associated with the sulfate exceedances, these values are attributed to natural sources from marine sediments.

Statistically increasing concentration trends were identified for fluoride at MW-17S and sulfate at MW-38. Neither of the COCs in these wells with increasing trends were above the NYSWQS for sulfate or fluoride.

Table 6-1 North Yard Groundwater Monitoring Results

North Yard Monitoring Points	Wells in Monitoring Point	PCBs	Free Cyanide	Fluoride		Sulfate	
		Frequency of Detection	Frequency of Detection	Frequency of Detection	MK Trend	Frequency of Detection	MK Trend
French Drain Collection System	FDRAIN1	-	½	**2/2**	S	1/1	D
On or Near Groundwater Divide	MW-16S	0/2	0/2	**2/2**	S	**2/2**	PD
	MW-17S	0/2	0/2	2/2	I	2/2	S
	MW-19S	0/2	0/2	**2/2**	D	2/2	D
Southside Downgradient	MW-18S	0/2	0/2	**2/2**	D	2/2	D
Northside Downgradient	MW-36	0/2	0/2	**2/2**	D	**2/2**	D
	MW-37	0/2	0/2	2/2	NT	**2/2**	S
	MW-38	0/2	0/2	2/2	S	2/2	I
	MW-41	0/2	0/2	2/2	S	**2/2**	D
Northside Further Downgradient	MW-48	0/2	0/2	2/2	-	2/2	-
	MW-49	0/2	0/2	2/2	-	2/2	-
	MW-50	0/2	0/2	2/2	-	**2/2**	-
	MW-51	0/2	0/2	2/2	-	2/2	-
	MW-52	0/2	0/2	2/2	-	**2/2**	-
	MW-54	0/2	0/2	2/2	-	2/2	-
	MW-55	0/2	0/2	-	-	-	-

Notes:
Bold = average concentration from samples above the NYSWQS
>50% ND = greater than 50 percent of non-detect level
D = increasing
I = increasing
NT = no trend
PCB = polychlorinated biphenyl
PD = probably decreasing
PI = probably increasing
S = stable

6.3.3 Post-Closure Assessment

Based on the groundwater contours, the groundwater monitoring well network is adequately configured to assess post-closure conditions at the North Yard.

MW-18S is located to assess groundwater flowing toward the plant. Groundwater from MW-18S flows beneath the East Plant pot rooms, where the storm sewer lines may serve as points of discharge. Other wells show improving concentration trends, and most constituents are either below the respective groundwater criteria or only marginally above. Wells installed downgradient of the North Yard French Drain indicate that constituent flux to the St. Lawrence River is negligible under current conditions, given that concentrations are below or only slightly above NYSWQS and the magnitude of attenuation overserved between the North Yard French Drain and the well locations.

The North Yard French Drain intercepts and captures shallow groundwater flowing from the North Yard (to the north) before it migrates further north to the hydraulically downgradient St. Lawrence River. The plant's layout, including the groundwater contours developed from spring and fall groundwater elevations, is shown in **Figure 4** and **Figure 5**. The original purpose of capturing PCB contaminants within the shallow groundwater system is no longer necessary. No PCBs were detected in groundwater samples collected from the North Yard (hydraulically upgradient of the North Yard French Drain) or to the east of the North Yard French Drain. This indicates that the North Yard PCB removal actions have successfully removed PCB sources, and leaching of PCBs to groundwater from residual soil impacts is no longer a concern.

While the North Yard French Drain is no longer required to collect PCB-impacted groundwater, it is potentially serving a secondary purpose to capture fluoride-impacted groundwater that possibly migrates from the PSP or general surrounding area. Monthly groundwater flow volumes captured by the North Yard French Drain is detailed in **Table 12**. A NYSDEC letter dated April 1, 2016 noted the Remedial Action Objective for the PSP groundwater may necessitate the continued maintenance of the North Yard French Drain and downgradient components as residual contaminant migration mitigation control. However, as documented in the HCSM, which is included in the *2021 Annual Periodic Review Report* (EHS Support, 2022b), groundwater impacts are limited in the area of the North Yard French Drain, with impacts above criteria constrained to low-yield wells that typically go dry on sampling. The measured fluoride is attributed to matrix diffusion from low-permeability units that historically sequestered contaminant mass. The flux of contaminants, including fluoride, towards the St. Lawrence River (under current and non-pumping conditions) is anticipated to be minimal, with on-site groundwater monitoring data showing low fluoride concentrations in the more transmissive units. A combination of dilution, dispersion, and geochemical complexation support further attenuation in groundwater concentrations. Additionally, major reductions in other COCs have been observed over time with recent groundwater data from the North Yard French Drain, indicating Site COCs have reached an asymptote (EHS Support, 2022c).

7 Former Potliner Storage Pad (OU-5)

The former PSP is a concrete slab immediately north of the former Crusher Building on the northwestern side of the production area. The pad was used in the past to store spent potliner materials. The remediation area encompasses the concrete pad and includes the area of former Buildings 82 (Crusher Building) and 85 (Cathode Digging Building) and the former West Ditch outfall that ran through the area toward the St. Lawrence River. The PSP remediation area was increased to include an additional area designated south of the former Digging Building, resulting in a total remediation area of 5 acres.

As discussed in the *Area-Specific Completion Report for Remediation of the Potliner Storage Pad Area* (Bechtel, 1996), PCBs were detected in samples from the PSP area, and fluoride, cyanide, sulfate, and polynuclear aromatic hydrocarbons were also considered COCs. The 10 ppm PCB cleanup goal for the PSP was established in the ROD (NYSDEC, 1992). Residual concentrations of cyanide, sulfate, and fluoride were evaluated and compared with the New York State effluent standards. When the PSP boundaries were expanded to the area south of the Digging Building (which drains toward the wetlands), Reynolds Metals Company and the NYSDEC agreed that a lower cleanup target of 1 ppm PCB was appropriate for the added area. Remedial work included excavating soils containing PCBs and other COCs, backfilling with clean materials, improving drainage, and extensive paving to direct surface water runoff and prevent surface water infiltration. In areas where fluoride and cyanide levels were elevated but PCBs were not, the action was to remove most of the elevated concentrations and isolate the residual constituents by covering with clean backfill and paving the surface with reinforced concrete. Some soils with PCB concentrations less than 10 ppm were disposed of in the BMP. The remaining soils with PCB concentrations less than 10 ppm and soils with PCB concentrations greater than or equal to 10 ppm but less than 50 ppm PCBs were disposed of in the on-site ILF. Soil with greater than or equal to 50 ppm PCBs was disposed off-site.

One significant additional remedial effort has been performed in this area following publication of the 1996 Completion Report (Bechtel, 1996). In September 1999, an excavation was performed near Building 85 (Cathode Digging Building) as part of a Plant modernization effort. The resulting excavation spoils (approximately 120 CY) were disposed of in the ILF. The work was documented in the *Post-Remedial Report for Third Quarter 1999*.[7] More recent activity in the area includes demolition of the former crusher building.

Historical excavations were completed between 8 and 16 ft deep east of the former crusher building up to the road, up to 5 ft deep south of the former Digging Building, and in the area north and west of the paved area up to the edge of the rail tracks. Fluoride and cyanide were removed to cleanup goals in most locations; however, areas of residual contamination remained. Due to active plant operations at the time of past remedial activities, excavation was not completed beneath buildings, surrounding concrete pads, or the adjacent roads and rail tracks. At six locations, fluoride was not removed to the cleanup standard (3.0 mg/L at that time), based on Toxicity Characteristic Leaching Procedure soil results.

June 2006 groundwater results from temporary piezometers (PZ-23 through PZ-31) installed in the shallow advective groundwater system (i.e., around and within the former PSP concrete pad and remediation excavations) provide an additional line of evidence that a residual fluoride or cyanide source is present in soil that was not excavated. The 2024 groundwater monitoring data are consistent with these results, indicating a local fluoride source to groundwater in the PSP area.

The location of the former PSP and the groundwater wells in the vicinity are shown in **Figure 18**. Key post-remedial activities include inspections and groundwater monitoring.

7.1 Operations

Routine operations include inspection of the stormwater collection system.

7.2 Maintenance, Repairs and Modifications

The stormwater collection system functioned normally during the monitoring period. No other maintenance items or problems were reported.

7.3 Groundwater Monitoring

7.3.1 Groundwater Elevations and Hydraulic Gradients

Groundwater elevation contours, based on measurements collected during April and December 2024, are presented in **Figure 4** and **Figure 5**.

Groundwater under the former PSP flows in a north and northeast direction toward the North Yard French Drain. MW-27S and MW-56 are upgradient of the area and MW-03S is directly adjacent to the area. The closest downgradient wells are MW-26S and MW-28S. Further downgradient are MW-33S and MW-34S, both of which are also upgradient of the North Yard, and MW-35SR, which is downgradient of the North Yard. MW-42, MW-43, and MW-44, which were installed in spring 2006, are located downgradient of both the PSP area and the North Yard. Also, downgradient of both the North Yard and PSP are monitoring wells MW-48, MW-49, MW-50, MW-51, MW-52, and MW-54, which were installed in 2023 to monitor furthest downgradient groundwater conditions and results are described in the North Yard section of this report. Monthly water levels have been collected at four piezometers (PZ-23, PZ-29, PZ-30, and PZ-31) since 2006. Groundwater elevation variations have been consistent over the past 18 years of water level gauging at these locations; only the spring and fall data points are currently utilized for incorporation into development of **Figure 4** and **Figure 5**.

The North Yard French Drain system, located beneath the western side of the North Yard and at an elevation of approximately 201 ft, influences the direction of groundwater flow from the PSP. The North Yard French Drain system and the sewer system network located at the north end of the pot rooms draw groundwater to the northeast. The North Yard French Drain is described in the North Yard section of this report.

7.3.2 Groundwater Quality

Using the methods detailed in **Section 2.1.3,** analytical results and trend analyses for groundwater samples collected around the North Yard are summarized in **Table 7-1**. Detailed analytical results are provided in **Appendix C**. The statistical summary of the groundwater monitoring results, including the post-plant closure statistical trend analysis, is provided in **Table 10**. A summary of concentration trend results compared to the post-Plant closure period are provided in **Appendix D**.

Statistically significant decreasing concentration trends for fluoride were located at MW-03S which is under the storage pad and at MW-26S which is downgradient of the pad. Samples from these locations and those around them (MW-27S and MW-28S) had fluoride concentrations above the NYSWQS of 1.5 mg/L. The four wells located furthest downgradient to the PSP all had stable concentration trends and only MW-42 had a fluoride concentration above 1.5 mg/L. Based on the water level at MW-42, this well is hydraulically connected to the North Yard French Drain and likely represents water quality in the French Drain.

The groundwater monitoring results for free cyanide were below the NYSWQS of 0.2 mg/L in the collected PSP groundwater samples.

A review of the post-Plant closure data indicates that sulfate has a statistically significant increasing concentration trend at MW-27S and MW-35SR. MW-27S is located upgradient to the PSP, with the BMP further upgradient to it. At the storage pad and immediately downgradient from it, sulfate concentration trends are all decreasing besides MW-35SR. Because the increasing sulfate trend at MW-35SR is not accompanied by an increasing fluoride trend or fluoride concentrations above criteria, the sulfate concentrations can be attributed to by the presence of marine sediments in the area.

PCBs were detected in one sample of two collected at MW-03S. This sample had a concentration of 0.129 ug/L of PCB-1254 (Aroclor 1254).

Table 7-1 Former Potliner Storage Pad Groundwater Monitoring Results

Former Potliner Storage Pad Monitoring Points	Wells in Monitoring Point	PCBs	Free Cyanide	Fluoride		Sulfate	
		Frequency of Detection	Frequency of Detection	Frequency of Detection	MK Trend	Frequency of Detection	MK Trend
Upgradient	MW-27S	0/2	0/2	**2/2**	S	**2/2**	I
Under Storage Pad	MW-03S	1/2*	1/2	**2/2**	D	2/2	D
Downgradient	MW-26S	0/2	0/2	**2/2**	D	2/2	D
	MW-28S	0/2	2/2	**2/2**	S	2/2	D
Further Downgradient	MW-33S	–	0/2	–	–	–	–
	MW-34S	–	0/2	–	–	–	–
Furthest Downgradient	MW-35SR	0/2	0/2	2/2	S	**2/2**	I
	MW-42	0/2	1/2	**2/2**	S	**2/2**	D
	MW-43	0/2	0/2	2/2	S	2/2	D
	MW-44	0/2	0/2	2/2	S	2/2	D

Notes:
Bold = average concentration from samples is above NYSWQS
>50% ND = greater than 50 percent of non-detect level
* = PCB-1254 (Aroclor1254)
D = increasing
I = increasing
NT = no trend
PCB = polychlorinated biphenyl
PD = probably decreasing
PI = probably increasing
S = stable

7.3.3 Post-Closure Assessment

With the addition of the monitoring wells installed in 2006 and confirmation of contaminant recovery in the North Yard French Drain system, the groundwater monitoring well network is adequately configured to assess post-Plant closure conditions in the vicinity and downgradient of the former PSP area.

As documented in the *2021 Annual Period Review Report* (EHS Support, 2022b), it is possible that low-permeability lacustrine/marine clay identified between the North Yard/PSP and St Lawrence River, which is proximal to the MW-35SR and MW-42 screened intervals, contributes sulfate to these locations. A marine sulfate source is supported by elevated sulfate in other locations where wells are screened in lacustrine/marine clay, including MW-36S, MW-37, and MW-41. Given these downgradient wells typically go dry during sampling, provide very low groundwater yields, and have highly entrained suspended sediment, there is ample opportunity for sediment contributions to groundwater quality.

Semiannual groundwater fluoride concentrations at MW-03S, MW-26S, and MW-28S downgradient of the PSP were elevated in 2024, whereas groundwater results from monitoring wells MW-36, MW-43, and MW-19S that are located to the side and downgradient of the PSP have substantially lower fluoride concentrations, indicating the source of residual soil impact is possibly localized in the PSP area or nearby. MW-56 was installed between the PSP and BMP; results indicate that fluoride is not migrating from the BMP. Sulfate exceeded the NYWQS at MW-56, but fluoride did not. Given the absence of fluoride, sulfate is not attributed to seepage from the BMP and indicates that groundwater migrating from the BMP is not a source of groundwater fluoride impacts to the PSP area. The lateral extent of the elevated COC concentrations is delineated by MW-26S to the west and MW-34S to the east. The downgradient extent of elevated COC concentrations in shallow groundwater possibly associated with the PSP or nearby area appears to be captured by the North Yard French Drain. Operation of the North Yard French Drain system influences the direction of the groundwater flow from the PSP and nearby area. Concentrations of COCs in samples collected from the North Yard French Drain are above the NYSWQS, and all captured groundwater is treated prior to discharge. Fluoride and sulfate concentrations are stable to decreasing in the North Yard French Drain. Concentrations decrease significantly in wells downgradient of the North Yard French Drain (north of Haverstock Road) to below criteria. Given the appreciable area where snowmelt and rainfall infiltration can occur and attenuate COCs, continued operation of the North Yard French Drain may be providing limited benefits.

PCB Aroclors (Aroclor 1254) were only detected in MW-03S in the PSP area but no locations further downgradient (including the North Yard French Drain). The lack of observed PCBs indicates that the North Yard French Drain has served its original, intended purpose of mitigating PCB migration and impacts. Notably, there was significant drawdown in MW-03S during sampling due to being screened in low-permeability units along with measurable turbidity, and contributions of particulates (and associated adsorbed constituents) are suspected.

Free cyanide was only detected in MW-03S, MW-28S and MW-42 (all screened in low permeability soils and typically with substantial drawdown or running dry on sampling) and was below the NYSWQS in all instances. There were no other detections of free cyanide in the PSP area. Review of the final excavation surfaces and post-excavation sampling results indicate that limitations on excavation imposed by the buildings and roadways, along with the cleanup goals specific to PCBs, may have resulted in some residual PSP-impacted material being left in place.

8 Wetlands and Miscellaneous Areas (OU-4 and OU-6)

Remedial measures were historically implemented for the Wetlands (OU-4) and Miscellaneous Areas (OU-6) identified in the 1992 ROD (NYSDEC, 1992). There are no O&M requirements associated with these areas; therefore, they are not discussed in further detail.

8.1 Wetlands Remediation Area

A 172-acre area located south and west of the ILF was mapped by NYSDEC as a Regulated Wetland RR-6 Class II Wetlands Area (**Figure 1**). Portions of the wetlands were identified in the 1992 ROD as remediation areas due to the presence of COCs, including PCBs, fluoride, and sulfate. The remediation area was approximately 7.8 acres and was designated as Wetlands OU-4. The remedial scope of work included temporary dewatering of impacted areas, excavation of sediment and soils, restoration of excavated areas, and the creation of replacement wetlands. This work is documented in the *Area-Specific Completion Report for Remediation, Restoration, and Mitigation of Wetlands RR-6* (Bechtel, 1998b).

No ongoing operations, maintenance, and/or monitoring is conducted in the wetlands area.

8.2 Rectifier Yard

The Rectifier Yard is on the southern end of the production area of the plant within the perimeter road. Its principal use is as a high-voltage electrical substation. Surface water is drained from the Rectifier Yard by two networks of catch basins. The northern network collects transformer cooling water and stormwater runoff and discharges to a drainage system beneath the pot rooms which is connected to the Plant's SPDES outfall system. Stormwater runoff from the southern half of the Rectifier Yard collects in the southern network of catch basins and drains to the Rectifier Yard Pond.

Rectifier Yard remediation consisted of soil excavation in a ½-acre area. The excavated area was backfilled, graded, and surfaced with crushed stone. Remediation work also included extending and rerouting storm drains, excavating oil transfer piping, cleaning storm drains, and providing a sampling station/retention pond for surface water runoff immediately upstream of the wetlands. Remediation work is documented in the *Area-Specific Completion Report for the Remediation of the Rectifier Yard* (Bechtel, 1995a).

The Rectifier Yard Plan to include the drainage network that leads to the Rectifier Yard Pond is illustrated on **Figure 19**. O&M activities are limited to inspections and replacement of the Rectifier Yard Pond oil absorbent boom (as needed, but no less than annually). Monitoring of the surface water chemistry of the retention pond is no longer required per NYSDEC approval in January 2013.

8.3 Former Soil Stockpile

The Former Soil Stockpile was an area located southwest of the BMP where soil spoils containing less than 10 ppm total PCBs from various remedial efforts performed at the Site were stored. Remedial activities performed in 1994 included excavation and removal of this material to below the cleanup goal of 1 ppm total PCBs. Excavated material was placed in the ILF. Details of the remediation action are provided in the *Area-Specific Completion Report for Remediation of the Soil Stockpile* (Bechtel, 1995b).

No ongoing operations, maintenance, and/or monitoring is conducted in this area.

8.4 West Ditch Outfall

Remediation of the downstream portion of the West Ditch located north of Haverstock Road is detailed in the *Project Completion Report for the Remediation of the 002 Outfall/West Ditch System and Remediation of the 007 Outfall* (Bechtel, 1992). Remediation objectives included the removal of PCB-impacted soil and sediment from Outfall 008 and Outfall 007 drainage systems to meet the cleanup goal of 10 ppm total PCBs. Excavated material was placed in the ILF.

No ongoing operations, maintenance, and/or monitoring is conducted in this area.

8.5 002 Diversion Area (Outfall 005)

The 002 Diversion Area is located in the northeast corner of the Plant. The 002 Diversion project was an interim remedial measure completed in 1989 that consisted of diverting surface water flow to a piped system to capture waters that formerly discharged to Outfall 002 and the majority of surface water runoff from the east side of the Site. As part of the diversion project, confirmatory soil samples collected in excavated areas identified elevated PCB concentrations; therefore, these areas were identified as miscellaneous areas in the 1992 ROD (NYSDEC, 1992). Remedial activities performed are documented in the *Area-Specific Completion Report of the 002 Diversion Area* (Bechtel, 1997c) and included excavation of soils to meet the cleanup goal of 10 ppm total PCBs. Excavated material containing less than 50 ppm total PCBs was disposed of in the ILF, while material with a total PCB concentration greater than 50 ppm was disposed of off-site.

The Outfall 005 drainage basin is located in the eastern portion of the 002 Diversion Area. PCB detections in stormwater discharge from Outfall 005 in 1998 prompted additional remedial efforts in 1999. This remediation is documented in the *Completion Report for Remediation of the 005 Drainage Basin 002 Diversion Area* (Bechtel, 1999). Excavated material was disposed of in the ILF.

No ongoing operations, maintenance, and/or monitoring is conducted in this area.

8.6 Area North of Haverstock Road and Outfall 004

The area north of Haverstock Road was a narrow strip of land approximately 1,200 ft long by 200 to 300 ft wide located between Haverstock Road and the St. Lawrence River. Remediation completed in 1994 is documented in the *Area-Specific Completion Report for Remediation of the Area North of Haverstock Road* (Bechtel, 1995c). The remedial action included excavation of sediment and soils to meet a cleanup goal of 1 ppm total PCBs. Outfall 004 (later designated as Outfall 006) was located within this area and was remediated during installation of a new storm sewer and outfall. This work is also documented in the *Area-Specific Completion Report for Remediation of the Area North of Haverstock Road* (Bechtel, 1995c). Excavated material containing less than 50 ppm total PCBs was disposed of in the ILF while material with a total PCB concentration greater than 50 ppm was disposed of off-site.

No ongoing operations, maintenance, and/or monitoring is conducted in this area.

9 Findings and Recommendations

9.1 General

This section provides the general findings regarding the post-Plant closure conditions and post-closure monitoring programs at the various locations of the Site and provides recommendations for modifications to the post-closure monitoring program.

9.1.1 Industrial Landfill Findings

Based on groundwater contour maps, the existing monitoring well network is effective for assessing post-closure conditions at the former ILF. Consistent operation of the leachate collection system provides significant hydraulic control of shallow groundwater. A summary of results and findings obtained at the ILF are as follows:

- No PCBs were detected throughout the sampling period.
- Free cyanide was detected below the NYSWQS at upgradient well MW-10S, at downgradient wells MW-39S and MW-45, as well as SLPWETE and SLPWETW. It is recommended that a minimum of four measurements are available for Mann Kendall analysis, and eight to ten measurements for a robust analysis. At the end of 2024, semi-annual sampling locations had two data points and quarterly sampling locations had four data points. Therefore, free cyanide trend analysis can be initially completed in the 2025 Annual PRR at locations where concentrations are detected. At other locations, concentration trends will be assessed when sufficient data is available.
- Sulfate was detected at each of the sampled ILF locations at concentrations below the NYSWQS, except for MW-45. All four of the collected samples were above the NYSWQS of 250 mg/L (from 428 mg/L to 510 mg/L) at MW-45. Sulfate increased from low, stable levels in MW-45 to above the NYSWQS standard in September 2015. Concentrations have remained above the NYSWQS and display a statistically significant increasing concentration trend. The absence of high fluoride in this monitoring well indicates that the sulfate concentrations are not likely associated with ongoing flux from the landfill. The source is more likely from natural sources in the surrounding wetland or from residual impacts prior to remedy implementation at the ILF.
- Fluoride was detected above the NYSWQS of 1.5 mg/L in each of the four sampling events at MW-39S; fluoride concentrations from the post-Plant closure time period show a statistically significant increasing trend. Groundwater gradients at MW-39S are toward the ILD perimeter trench, and fluoride is below criteria to the south at MW-45, indicating concentrations are more likely attributable to residual sources prior to remedy implementation at the ILF.
- Fluoride was detected above the NYSWQS in each of the surface water samples collected at SLPWETE; fluoride concentrations from the post-Plant closure time period have a stable concentration trend. Fluoride was detected below the NYSWQS in SLPWETW and displayed a decreasing trend. Fluoride was detected below the NYSWQS at MW-10S, MW-40S, and MW-45. Geochemical data for receiving water bodies provided in the 2022 annual monitoring report indicate toxicity modifying factors (i.e., chloride, alkalinity, and hardness; based on the methods of Parker et al. [2022]) will be favorable for ameliorating low-level fluoride impacts (EHS Support, 2023).
- Quarterly samples were collected from the extraction wells for total cyanide and fluoride (**Table 9**). Fluoride was detected below the NYSWQS of 1.5 mg/L in each of the extraction wells, except for EW-02, where fluoride was detected only marginally above the standard at 1.59 mg/L in the

February event, 1.93 mg/L in the May event, and 1.47 mg/L in the August event. Total cyanide was detected in EW-06 at 0.436 in the February event, 0.461 in the May event, and 0.397 in the August event (note, the NYWQS only applies to free cyanide, not total cyanide). The radius of influence of these wells suggests that water from the interior of the ILF may be contributing to water quality in these locations.

The groundwater extraction system remained operational throughout the year with a total of 1,359,800 gallons extracted, with minor maintenance issues described in **Section 4.2** The ILF is operating as designed and continued monitoring will be performed. Mass balance data provided in Appendix I of the *2021 Annual Report* confirms the substantial 80-86 percent mixing of a wetland surface water component with a 15–20 percent leachate component in the perimeter trench for containment to be effective.

9.1.2 Black Mud Pond Findings

The existing drainage system, installed to the bottom of the waste, was estimated from boring logs and cross sections on remediation record drawings to have an approximate elevation of 224 ft. Historical operation of the underdrain system produced water level elevations of approximately 228 ft in monitoring well MPOF-1402S and approximately 232 ft in MPOG-1601S, indicating dewatering is functioning effectively. The presence of low permeability and high plasticity clay beneath the BMP precludes vertical groundwater movement and historically calculated vertical groundwater gradients do not reflect a groundwater advection pathway.

The efficacy of the BMP underdrain system is demonstrated by water levels in piezometers installed adjacent to the BMP that are higher than the invert elevations of the underdrain and higher than water levels in MPOF-1402S and MPOG-1601S that are screened in the interior of the BMP. This observation demonstrates an inward gradient is created by dewatering the BMP.

A summary of COCs in the groundwater at the BMP during the reporting year is listed below:

- PCBs were not detected in BMP monitoring wells.
- Free cyanide was detected at MW-12S, MW-14S, PZ-44, and PZ-45. Concentrations of free cyanide in all the detections were below the NYSWQS of 0.2 mg/L.
- Fluoride concentrations at 6 of the 14 sampled BMP locations (MW-12S, MW-13S, MW-15S-87, MW-30S, PZ-44, and PZ-46) were above the NYSWQS. Evaluation using the post-Plant closure data only MW-15S-87 had an increasing concentration trend while all others were stable or decreasing. Fluoride concentrations are below the NYSWQS downgradient of MW-15S-87 at MW-20-85S and MW-10S, indicating fluoride attenuates downgradient. PZ-44 is also located side- and downgradient of MW-15S-87 and had stable trends, further supporting that fluoride is generally stable in groundwater to the south of the BMP.
- Sulfate was detected above the NYSWQS in 10 of the 14 monitoring locations sampled at the BMP. MW-11SR, MW-13S, and MW-22-85-S displayed a decreasing trend, while MW-20-85-S and MW-23-85-S displayed an increasing trend. The remaining monitoring locations exhibited a stable concentration trend. Consistent with the observations in other areas and given the absence of elevated fluoride concentrations or increasing trends, the detections are considered potentially attributable to background soil conditions (e.g., lacustrine clay/marine sediments).
- Due to the presence of the barrier wall on the northern and western sides of the BMP, fluoride and sulfate detections at MW-12S and MW-13S are not considered to be associated with flux

from the BMP, which is confirmed by results from downgradient well MW-56. Further concentrations and increasing trends in wells to the south of the BMP are localized, with more distal downgradient wells showing no trends.

The capping system meets the ROD remediation action objectives for protecting workers and surface water. The dewatering system was not designed to lower water levels below the bottom of the waste; however, consistent operation of the underdrain and sump system has created an inward horizontal gradient that is effective at dewatering the interior of the BMP to the elevation of the underdrain inverts.

Regular post-closure monitoring and recent sampling of PZ-44, PZ-45, and PZ-46 demonstrate the presence of elevated concentrations of fluoride and sulfate outside of the BMP, which are related to residual impacts from conditions prior to consolidation of the BMP. Fluoride concentrations were still relatively low, with a maximum concentration of 5.0 mg/L reported during the past year at these piezometers. As described in the updated HCSM (**Section 3**), precipitation and snowmelt infiltrate into shallow soils downgradient of the BMP, where groundwater advection occurs, and effectively dilute COCs. In deeper and less permeable soils, groundwater advection and contaminant mass flux are limited. BMP controls are performing as designed and continued monitoring will be performed.

9.1.3 North Yard Findings

Based on the groundwater contour plans, the groundwater monitoring well network is effective to assess post-closure conditions at the North Yard. A summary of the observations related to the North Yard are as follows:

- PCBs were not detected in the North Yard monitoring locations.
- Free cyanide was non-detect in the North Yard monitoring wells. Free cyanide was detected below the NYSWQS at the North Yard French Drain.
- Fluoride was detected above the NYSWQS at MW-16S, MW-18S, MW-19S, MW-36, and the North Yard French Drain. Concentrations of fluoride are increasing at MW-17S but are decreasing in downgradient locations MW-18S, MW-19S, MW-36. All other wells with enough historical data for a trend analysis had stable trends.
- Sulfate was above the NYSWQS at six wells (MW-35SR, MW-37, MW-38, MW-41, MW-50 and MW-52). Trend analysis indicates statistically significant decreasing sulfate concentration trends in MW-18S, MW-19S, MW-36, and MW-41. Sulfate in MW-38 displays a statistically significant increasing trend. Sulfate levels may be partially attributed to proximity of well screens to marine clay downgradient to the North Yard, which is supported by the sulfate present in downgradient wells north of Haverstock Road and the absence of fluoride.

9.1.4 Former Potliner Storage Pad Findings

Based on the groundwater contour plans, the groundwater monitoring well network is effective to assess post-closure conditions near the former PSP.

- PCB-1254 (Aroclor 1254) was detected in MW-03S in one of the two samples taken at a concentration of 0.129 ug/L. No other PCBs were detected, including downgradient locations and the North Yard French Drain that capture groundwater leaving the PSP. The periodic detections are attributed to entrained particulates and associated adsorbed material.

- Free cyanide was detected below the NYSWQS in wells MW-03S, MW-28S, and MW-42 and was non-detect in all other PSP wells. The periodic detections are attributed to entrained particulates and associated adsorbed material.
- Sulfate was detected above the NYSWQS in MW-27S , MW-35SR, and MW-42. The concentrations trend is increasing at MW-27S and MW-35SR. The absence of fluoride from wells in the group downgradient of the PSP and presence of lacustrine/marine deposits in these locations suggests a natural source.
- Fluoride was detected above the NYSWQS in MW-03S, MW-26S, MW-27S, MW-28S, and MW-42. Fluoride concentration trends are decreasing or stable for each monitoring well in the PSP.

The persistent detections of COCs associated with potliner material indicate that some residual source remains possibly near the former PSP or the nearby area. Review of the final excavation surfaces and post-excavation sampling results indicate that limitations on excavation imposed by the active buildings and roadways may have resulted in some residual PSP-impacted material being left in-place. However, the detections of free cyanide, fluoride and sulfate above their respective NYSWQS in the North Yard French Drain and lower concentrations in downgradient, shallow monitoring wells indicate that the North Yard French Drain is possibly recovering contaminants for treatment from the shallow groundwater originating from the vicinity of the former PSP.

9.1.5 Rectifier Yard Findings

The Rectifier Yard Pond was not sampled per a letter from the NYSDEC dated January 3, 2013.

9.2 Institutional Control and Engineering Control Plan Review

The following sections discuss review of the Institutional Control and Engineering Control Plan for the closed remediation sites. The Institutional and Engineering Controls Certification Form is included as **Appendix F**.

9.2.1 Industrial Landfill

The engineering controls associated with the closed ILF include a cap with a vegetated cover along with a downgradient perimeter underdrain system. This underdrain system is used to extract groundwater beneath the in-place waste pile. The purpose of this system is to limit infiltration and prevent potentially affected groundwater from migrating from the ILF. This system has functioned as designed and has remained unchanged since it was approved by NYSDEC.

The upgradient groundwater extraction system was constructed during summer 2012 and began full operation in October 2012. Five extraction wells located upgradient of the ILF are pumped continuously with the intended purpose of lowering the shallow groundwater beneath the ILF and reducing the impact on the surrounding groundwater regime; a total of approximately 1,359,800 gallons were extracted throughout the monitoring period. Based on the operational experience to date, it is anticipated that continual maintenance of the system will be required and that weekly inspections will be necessary for the near future. The institutional and engineering controls are adequate and functioning as designed.

9.2.2 Black Mud Pond

The engineering controls associated with the closed BMP include a cap with a vegetated cover and an underdrain system. The underdrain system is used to extract groundwater beneath the in-place waste pile. The purpose of this system is to limit infiltration and prevent potentially affected groundwater from migrating from the BMP. This underdrain system was actively pumped throughout the monitoring period. As mentioned in **Section 5.1**, an inward horizontal gradient was observed in response to pumping and vertical flux is minimized by the presence of a high plasticity and low permeability clay at the base of the BMP waste. In addition, the entire BMP is surrounded by a fence to control access; therefore, the institutional and engineering controls are in place, adequate, and functioning as designed.

9.2.3 North Yard

Groundwater in the North Yard is controlled by two underdrain systems. The first system drains into pump station MH-B. Groundwater from this pump station is sampled and the operation and inspection of this pump station is routinely completed. No problems were reported during the reporting period.

The second groundwater collection system, located near the former PSP, conveys groundwater directly to the east into the west sump where it is conveyed to Outfall 003. At the time of the closure, no performance criteria were established for this system.

9.2.4 Former Potliner Storage Pad

Part of the remedial work at the former PSP included excavation and extensive paving to prevent surface water infiltration. Furthermore, contaminant concentrations observed in the French drain relative to the surrounding monitoring locations suggest that it is effectively capturing contaminated groundwater originating at the former PSP. Concentrations above the NYSWQS are currently being conveyed and treated through the Outfall 003 system.

At this time, no other controls are proposed for this area except continued monitoring. The institutional and engineering controls are adequate and function as designed.

9.2.5 Wetlands and Site-Wide

Site-wide and wetlands institutional and engineering controls include groundwater monitoring, SPDES surface water and process water monitoring, and fencing for access control. These controls remain in-place and are effective at this time.

9.3 Sampling Schedule

Proposed changes to the post-closure monitoring schedule were approved in March 2024 and were implemented in 2024. The sampling schedule will remain unchanged in 2025.

9.4 Recommendations

In contrast to the majority of monitoring locations at the Site, some monitoring locations at the ILF undergo quarterly water level gauging and sampling, while some locations at the PSP undergo monthly water level gauging. The data that is obtained no longer provides value and, in some cases, is not utilized for any purpose. It is recommended that the following changes are implemented:

- At the ILF, groundwater elevations at monitoring wells MW-10S, MW-39S, MW-40S, and MW-45 have been assessed quarterly for between 18 and 27 years. The stability of conditions at these locations is well established. Only the spring and fall groundwater elevations are currently utilized to develop piezometric surface contours. It is recommended that these wells are gauged semi-annually beginning in January 2026.
- Groundwater quality at MW-10S, MW-39S, MW-40S, MW-45, SLPWETE, and SLPWETW have been assessed quarterly for between 18 and 27 years. The stability of conditions at these locations is well established and understood. It is recommended that these wells are sampled semi-annually beginning in January 2026.
- Groundwater quality data (total cyanide and fluoride) from the ILF extraction wells was collected on a monthly basis in 2013 and has been collected on a quarterly basis for the past 10 years. The original purpose of collecting these data was to inform the understanding of water quality at the associated SPDES outfall. The stability of concentrations at these locations is well understood and the purpose of sampling the wells has served this original purpose. Moving forward, it is recommended that sampling of the extraction wells is integrated into the semiannual monitoring program on a semiannual frequency starting in January 2026. It is also recommended that free cyanide instead of total cyanide is analyzed starting in January 2026 to align with the broader groundwater monitoring program.
- Monthly water levels have been collected at four piezometers in the PSP area since 2006 (PZ-23, PZ-29, PZ-30, and PZ-31). Groundwater elevation variations have been consistent over the 18 years of water level gauging at these locations, and only the spring and fall data points are currently utilized for incorporation into development of **Figure 4** and **Figure 5**; the other data are not utilized for any purpose. It is recommended that semiannual gauging is completed starting in January 2026.

To better understand the distribution of fluoride in the PSP area, it is recommended that fluoride analysis be added to MW-34S. This monitoring well is located in key location downgradient of the PSP and upgradient of the North Yard French Drain.

10 References

ATL, (1972, January 3). Proposed Slurry Pond. Reynolds Metals Company, Massena, New York.

Aziz JJ, Ling M, Rifai HS, Newell CJ, Gonzales JR. (2003). MAROS: A Decision Support System for Optimizing Monitoring Plans. *Groundwater* 41(3): 355-367.

Bechtel. (1992, November). *Project Completion Report for the Remediation of the 002 Outfall/West Ditch System and Remediation of the 007 Outfall.*

Bechtel. (1995a, January). *Area-Specific Completion Report for the Remediation of the Rectifier Yard.*

Bechtel. (1995b, August). *Area-Specific Completion Report for Remediation of the Soil Stockpile.*

Bechtel. (1995c, March). *Area-Specific Completion Report for Remediation of the Area North of Haverstock Road*.

Bechtel. (1996, December). *Area-Specific Completion Report for Remediation of the Potliner Storage Pad Area*.

Bechtel. (1997a, October). *Area-Specific Completion Report for the Remediation of the Landfill/Former Potliner Storage Area at the Reynolds Metals Company St. Lawrence Reduction Plant Remediation Project*, Massena, New York, Revision 1.

Bechtel. (1997b, July). *Area-Specific Completion Report for the Remediation of the Black Mud Pond at the Reynolds Metals Company St. Lawrence Reduction Plant Remediation Project*, Massena, New York, Revision 1.

Bechtel. (1997c, April). *Area-Specific Completion Report of the 002 Diversion Area*.

Bechtel. (1998a, October). *Area-Specific Completion Report for the Remediation of the North Yard at the Reynolds Metals Company St. Lawrence Reduction Plant Remediation Project*, Massena, New York, Revision 1.

Bechtel. (1998b, January). *Area-Specific Completion Report for Remediation, Restoration, and Mitigation of Wetlands RR-6*.

Bechtel. (1999, July/August). *Completion Report for Remediation of the 005 Drainage Basin 002 Diversion Area*.

Bechtel. (2003a, February). *Landfill Cap Installation Addendum to the Area-Specific Completion Report for the Remediation of the Landfill/Former Potliner Storage Area*.

Bechtel. (2003b, July). *Overall Completion Report for the Alcoa, Inc. Massena East Smelter Plant Site Remediation Project (Formerly the Reynolds Metals Company St. Lawrence Reduction Plant)*, Massena, NY. Revision 2.

Bechtel. (2003c, June). *Construction Quality Assurance Certification Report for the Landfill/Former Potliner Storage Area Closure Cap*.

Calocerinos & Spina. (1985, July). *Preliminary Report – Evaluation of Pond Leakage*, Reynolds Metals Company, Massena, NY.

CDM Smith. (2010, June 11). *Draft PCB Management Plan*, Alcoa Inc. Massena East Plant.

CDM Smith. (2012, August 16). *Construction Completion Report for the Outfall 010 Groundwater Interception System*, Alcoa Inc. Massena East Plant.

CDM Smith. (2020, June 1). *2019 Annual Periodic Review Report* for Reynolds Metals Company, LLC. Prepared for Alcoa Corp. Reynolds Metals Company, LLC.

EHS Support LLC. (2022b, June). *2021 Annual Periodic Review Report* for Reynolds Metals Company, LLC. Prepared for Alcoa Corp. Reynolds Metals Company, LLC.

EHS Support LLC. (2022c, September). *Building PCB Investigation Work Plan* for Reynolds Metals Company, LLC. Prepared for Alcoa Corp. Reynolds Metals Company, LLC.

EHS Support LLC. (2023, May). *2022 Annual Periodic Review Report* for Reynolds Metals Company, LLC. Prepared for Alcoa Corp. Reynolds Metals Company, LLC.

Menne, Matthew J.; Imke Durre; Bryant Korzeniewski; Shelley McNeill; Kristy Thomas; Xungang Yin; Steven Anthony; Ron Ray; Russell S. Vose; Byron E. Gleason; and Tamara G. Houston. (2012). Global Historical Climatology Network – Daily (GHCN-Daily), Version 3. [Massena International Airport Subset]. NOAA National Climatic Data Center. Doi:10.7289/V5D21VHZ. Accessed February 17.

New York State Department of Environmental Conservation. (1992, January 22). Record of Decision for Reynolds Metals Company St. Lawrence Reduction Plant, Massena, New York. NYSDEC Site NO: 6-45-009.

New York State Department of Environmental Conservation. (1995, June 27). Declaration for Amendment to the Record of Decision for Reynolds Metals Company St. Lawrence Reduction Plant, Massena, New York. NYSDEC Site NO: 6-45-009.

Parker, S.P., Wilkes, A.E., Long, G.R., Goulding, N.W. and Ghosh, R.S. (2022). Development of Fluoride Protective Values for Aquatic Life Using Empirical Bioavailability Models. *Environmental Toxicology and Chemistry, 41(2)*, pp. 396-409.

United States Environmental Protection Agency. (1998). New York State Human Health Fact Sheet: Ambient Water Quality Value for Protection of Sources of Potable Water, Cyanide. Retrieved on March 12, 2021 from https://www.epa.gov/sites/default/files/2015-06/documents/ny_hh_359_w_03121998.pdf

United States Environmental Protection Agency. (2020). Clarification of Free and Total Cyanide Analysis for Safe Drinking Water Act (SDWA) Compliance. Revision 1.0. EPA 815-B-20-004. Retrieved in June 2023 from https://www.epa.gov/sites/default/files/2016-08/documents/cyanide-clarification-free-and-total-cyanide-analysis-safe-drinking-water.pdf

Woodward Clyde Consultants. (1990, July). *Revised Final Remedial Investigation Report*, St. Lawrence Reduction Plant. Prepared for Reynolds Metals Company, LLC, Massena, New York.

Tables

Table 1
Monitoring Well and Piezometer Construction
2024 Periodic Review Report
Reynolds Metals Company (NYSDEC Site Code 645009)
Massena East, New York

Facility Location and ID														
Monitoring Well ID	Site	Alcoa Coordinates[1]		Ground Elevation (feet)	Date Installed	Company	Material Type and Size	Depth of Well (feet)	Bottom of Hole Elevation (feet)	Top of Inner Casing (feet)	Screen			
											Depth		Elevation	
		Northing	Easting								Top (feet)	Bottom (feet)	Top (feet)	Bottom (feet)
MW-1S	NYD	5,453.40	-8,700.70	224.30	9/16/87	WCC	2-inch diameter PVC	16.00	208.30	226.56	6.00	16.00	218.30	208.30
MW-03S	PSP	5,286.24	-9,353.56	224.7	10/17/08	ATL	2-inch diameter PVC	23.00	201.7	227.2	13.00	23.00	211.68	201.68
MW-10S	ILF	3,455.20	-9,730.10	214.50	9/1/87	WCC	2-inch diameter PVC	20.50	194.00	217.62	10.50	20.50	204.00	194.00
MW-11SR	BMP	4,516.60	-9,682.60	240.20	9/11/87	WCC	2-inch diameter PVC	27.00	213.20	242.71	17.00	27.00	223.20	213.20
MW-12S	BMP	4,830.10	-9,907.20	245.10	9/16/87	WCC	2-inch diameter PVC	16.00	229.10	248.18	6.00	16.00	239.10	229.10
MW-13D	BMP	4,648.40	-10,125.30	243.70	9/9/87	WCC	2-inch diameter PVC	49.00	194.70	245.16	39.00	49.00	204.70	194.70
MW-13S	BMP	4,659.50	-10,126.00	243.70	9/14/87	WCC	2-inch diameter PVC	16.50	227.20	245.19	6.50	16.50	237.20	227.20
MW-14S	BMP	4,392.90	-10,174.50	246.60	9/4/87	WCC	2-inch diameter PVC	18.00	228.60	248.16	8.00	18.00	238.60	228.60
MW-15S-91	BMP	4,085.40	-9,954.10	239.60	8/12/91	ATL	2-inch diameter PVC	31.00	208.60	242.10	21.00	31.00	218.60	208.60
MW-15D	BMP	4,085.90	-9,962.70	239.70	9/3/87	WCC	2-inch diameter PVC	57.00	182.70	242.30	47.00	57.00	192.70	182.70
MW-15S-87	BMP	4,085.80	-9,973.70	239.60	9/10/87	WCC	2-inch diameter PVC	31.00	208.60	242.38	21.00	31.00	218.60	208.60
MW-16S	NYD	5,268.20	-8,578.60	225.90	8/7/91	WCC	2-inch diameter PVC	23.00	202.90	228.70	13.00	23.00	212.90	202.90
MW-17S	NYD	5,327.20	-8,684.60	223.40	8/24/89	WCC	2-inch diameter PVC	18.00	205.40	227.12	8.00	18.00	215.40	205.40
MW-18S	NYD	5,269.20	-8,827.70	224.70	8/30/89	WCC	2-inch diameter PVC	22.00	202.70	226.87	12.00	22.00	212.70	202.70
MW-19S	NYD	5,455.00	-8,978.00	223.50	8/28/89	WCC	2-inch diameter PVC	16.50	207.00	226.76	6.50	16.50	217.00	207.00
MW-20-85-S	BMP	3,928.20	-9,860.30	222.70	8/15/85	ATL	2-inch diameter PVC	30.50	192.20	225.95	20.50	30.50	202.20	192.20
MW-20-85-D	BMP	3,917.80	-9,856.00	223.00	8/20/85	ATL	2-inch diameter PVC	61.20	161.80	226.70	51.20	61.20	171.80	161.80
MW-21-85S	BMP	4,411.00	-9,516.90	227.20	8/22/85	ATL	2-inch diameter PVC	31.00	196.20	228.88	21.00	31.00	206.20	196.20
MW-21-85D	BMP	4,426.30	-9,518.40	227.20	8/22/85	ATL	2-inch diameter PVC	58.00	169.20	228.87	48.00	58.00	179.20	169.20
MW-22-85-D	BMP	4,891.40	-10,040.30	244.20	8/15/85	ATL	2-inch diameter PVC	60.60	183.60	246.48	50.60	60.60	193.60	183.60
MW-22-85-S	BMP	4,891.40	-10,025.50	244.50	8/7/85	ATL	2-inch diameter PVC	30.30	214.20	246.94	20.30	30.30	224.20	214.20
MW-23-85-D	BMP	4,468.90	-10,245.10	242.10	8/5/85	ATL	2-inch diameter PVC	58.00	184.10	246.14	48.00	58.00	194.10	184.10
MW-23-85-S	BMP	4,487.00	-10,241.00	241.9	10/17/08	ATL	2-inch diameter PVC	30.5	211.4	245.01	20.5	30.5	221.40	211.40
MW-24-85-S	BMP	---	---	228.30	8/7/85	ATL	2-inch diameter PVC	30.30	198.00	---[2]	20.30	30.30	208.00	198.00
MW-25-85-S	BMP	4,935.00	-10,392.60	228.30	8/8/85	ATL	2-inch diameter PVC	30.20	198.10	---[3]	20.20	30.20	208.10	198.10
MW-26S	PSP	5,390.70	-9,410.30	224.00	8/23/89	WCC	2-inch diameter PVC	27.50	196.50	225.36	17.50	27.50	206.50	196.50
MW-27S	PSP	5,014.80	-9,371.92	227.49	8/23/89	WCC	2-inch diameter PVC	22.50	204.99	230.50	12.50	22.50	214.99	204.99
MW-28S	PSP	5,394.40	-9,329.10	224.30	---	WCC	2-inch diameter PVC	26.00	198.30	226.54	16.00	26.00	208.30	198.30
MW-29S[a]	BMP	5,185.20	-9,898.90	237.60	8/14/89	WCC	2-inch diameter PVC	17.00	220.60	241.62	7.00	17.00	230.60	220.60
MW-30S	BMP	3,966.90	-10,131.60	231.70	8/14/89	WCC	2-inch diameter PVC	17.00	214.70	234.54	7.00	17.00	224.70	214.70
MW-31SR	BMP	4,124.60	-10,770.60	233.20	8/9/89	WCC	2-inch diameter PVC	19.50	213.70	234.83	9.50	19.50	223.70	213.70
MW-32S	EAST P-LOT	4,089.10	-7,406.10	224.20	8/9/89	WCC	2-inch diameter PVC	37.00	187.20	227.28	27.00	37.00	197.20	187.20
MW-33S	PSP	5,476.80	-9,466.90	223.20	8/16/95	ATL	2-inch diameter PVC	26.00	197.20	225.72	16.00	26.00	207.20	197.20
MW-34S	PSP	5,466.90	-9,241.60	215.60	8/21/95	ATL	2-inch diameter PVC	24.50	191.10	218.56	14.50	24.50	201.10	191.10
MW-35SR	PSP	5,695.50	-9,332.20	211.10	10/27/97	ATL	2-inch diameter PVC	26.80	184.30	213.54	16.80	26.80	194.30	184.30
MW-36	NYD	5,672.60	-8,883.30	207.00	9/3/96	ATL	2-inch diameter PVC	31.50	175.50	209.40	21.50	31.50	185.50	175.50
MW-37	NYD	5,650.50	-8,708.00	204.90	9/5/96	ATL	2-inch diameter PVC	32.00	172.90	207.68	22.00	32.00	182.90	172.90
MW-38	NYD	5,604.50	-8,469.60	198.20	9/6/96	ATL	2-inch diameter PVC	32.00	166.20	202.71	22.00	32.00	176.20	166.20
MW-39S	ILF	2,575.50	-9,630.60	193.30	10/29/97	ATL	2-inch diameter PVC	18.50	174.80	196.16	8.50	18.50	184.80	174.80
MW-40S	ILF	2,729.30	-9,245.10	192.00	10/30/97	ATL	2-inch diameter PVC	17.50	174.50	194.32	7.50	17.50	184.50	174.50
MW-41	NYD	5,501.70	-8,370.20	221.50	4/11/06	ATL	2-inch diameter PVC	47.00	174.50	224.25	35.00	45.00	186.50	176.50
MW-42	NYD	5,698.30	-9,347.80	209.10	4/12/06	ATL	2-inch diameter PVC	47.00	162.10	211.40	34.00	44.00	175.10	165.10

Table 1
Monitoring Well and Piezometer Construction
2024 Periodic Review Report
Reynolds Metals Company (NYSDEC Site Code 645009)
Massena East, New York

Facility Location and ID														
Monitoring Well ID	Site	Alcoa Coordinates[1]		Ground Elevation (feet)	Date Installed	Company	Material Type and Size	Depth of Well (feet)	Bottom of Hole Elevation (feet)	Top of Inner Casing (feet)	Screen			
											Depth		Elevation	
		Northing	Easting								Top (feet)	Bottom (feet)	Top (feet)	Bottom (feet)
MW-43	NYD	5,701.90	-9,461.50	206.70	4/14/06	ATL	2-inch diameter PVC	47.00	159.70	209.12	34.50	44.50	172.20	162.20
MW-44	NYD	5,702.40	-9,459.40	206.60	4/18/06	ATL	2-inch diameter PVC	26.50	180.10	209.04	15.00	25.00	191.60	181.60
MW-45	ILF	2,527.60	-9,634.90	193.40	4/19/06	ATL	2-inch diameter PVC	15.50	177.90	195.83	5.00	15.00	188.40	178.40
MW-46	ILF	2,767.17	-9,260.11	198.02	8/13/10	ATL	2-inch diameter PVC	8.00	190.02	200.72	24.00	29.00	174.02	169.02
MW-47	ILF	2,578.15	-9,633.33	193.00	8/13/10	ATL	2-inch diameter PVC	44.00	149.00	196.49	29.00	34.00	164.00	159.00
MW-48	NYD	5,736.01	-8,579.47	191.90	4/23/23	ATL	4-inch diameter PVC	28.00	163.90	194.22	13.00	23.00	178.90	168.90
MW-49	NYD	5,851.52	-9,026.86	185.13	11/8/23	Rockwater	4-inch diameter PVC	50.00	135.13	187.82	37.50	47.50	147.63	137.63
MW-50	NYD	5,874.40	-9,384.17	178.13	11/9/23	Rockwater	4-inch diameter PVC	30.00	148.13	178.03	15.00	25.00	163.13	153.13
MW-51	NYD	5,949.62	-9,469.63	185.77	4/20/23	ATL	4-inch diameter PVC	39.00	146.77	185.70	29.00	39.00	156.77	146.77
MW-52	NYD	6,116.16	-9,524.16	183.29	4/19/23	ATL	4-inch diameter PVC	23.00	160.29	183.24	13.00	23.00	170.29	160.29
MW-54	NYD	5,821.25	-8,558.52	182.31	11/8/23	Rockwater	4-inch diameter PVC	50.00	132.31	185.29	35.00	45.00	147.31	137.31
MW-55	NYD	5,794.03	-7,671.32	173.90	11/7/23	Rockwater	4-inch diameter PVC	36.00	137.90	176.74	15.00	30.00	158.90	143.90
MW-56	NYD	5,005.45	-9,667.55	239.83	11/10/23	Rockwater	4-inch diameter PVC	50.00	189.83	239.91	10.00	20.00	229.83	219.83
MPOF1403D[4]	BMP	4,231.90	-9,994.90	250.40	7/2/96	ATL	2-inch diameter PVC	32.50	217.90	254.95	30.50	32.50	219.90	217.90
MPOF1402S	BMP	4,236.30	-9,996.10	248.70	7/3/96	ATL	2-inch diameter PVC	25.00	223.70	254.21	23.00	25.00	225.70	223.70
MPOG1603D[5]	BMP	4,346.30	-9,785.50	251.00	7/2/96	ATL	2-inch diameter PVC	31.50	219.50	254.72	29.50	31.50	221.50	219.50
MPOG1601S	BMP	4,349.50	-9,795.60	252.70	2/11/95	ATL	2-inch diameter PVC	20.50	232.20	254.32	0.00	19.50	252.70	233.20
Piezometers														
PZ-1	ILF	3,110.15	-8,980.84	215.70	6/5/02	ATL	2-inch diameter PVC	15.20	200.50	218.28	5.20	15.20	210.50	200.50
PZ-2	ILF	3,106.96	-8,974.50	214.30	6/5/02	ATL	2-inch diameter PVC	14.00	200.30	217.04	4.00	14.00	210.30	200.30
PZ-3	ILF	3,103.48	-8,966.37	213.00	6/5/02	ATL	2-inch diameter PVC	14.00	199.00	215.10	7.00	14.00	206.00	199.00
PZ-4	ILF	3,102.54	-8,964.80	212.60	6/5/02	ATL	2-inch diameter PVC	12.00	200.60	215.78	7.00	12.00	205.60	200.60
PZ-5	ILF	3,103.23	-8,962.11	213.00	6/6/02	ATL	2-inch diameter PVC	12.90	200.10	216.02	7.90	12.90	205.10	200.10
PZ-6	ILF	2,862.02	-9,158.43	199.60	5/29/02	ATL	2-inch diameter PVC	14.00	185.60	202.24	9.00	14.00	190.60	185.60
PZ-7	ILF	2,854.46	-9,155.56	198.00	5/29/02	ATL	2-inch diameter PVC	10.40	187.60	201.02	5.40	10.40	192.60	187.60
PZ-8	ILF	2,843.34	-9,150.24	197.70	5/30/02	ATL	2-inch diameter PVC	10.40	187.30	201.85	6.40	10.40	191.30	187.30
PZ-9	ILF	2,841.53	-9,149.39	198.20	5/30/02	ATL	2-inch diameter PVC	10.40	187.80	201.53	6.40	10.40	191.80	187.80
PZ-10	ILF	2,721.24	-9,493.49	199.90	6/3/02	ATL	2-inch diameter PVC	14.00	185.90	202.82	7.00	14.00	192.90	185.90
PZ-11	ILF	2,715.00	-9,490.99	199.20	6/3/02	ATL	2-inch diameter PVC	13.50	185.70	202.43	8.50	13.50	190.70	185.70
PZ-12	ILF	2,702.16	-9,485.72	197.80	6/4/02	ATL	2-inch diameter PVC	11.60	186.20	201.10	7.60	11.60	190.20	186.20
PZ-13	ILF	2,700.22	-9,485.03	197.40	6/4/02	ATL	2-inch diameter PVC	11.70	185.70	201.12	7.70	11.70	189.70	185.70
PZ-14	ILF	2,714.94	-9,918.27	199.50	5/23/02	ATL	2-inch diameter PVC	10.90	188.60	201.91	5.90	10.90	193.60	188.60
PZ-15	ILF	2,709.67	-9,923.35	198.30	5/23/02	ATL	2-inch diameter PVC	9.80	188.50	200.58	5.80	9.80	192.50	188.50
PZ-16	ILF	2,701.32	-9,931.53	198.40	5/23/02	ATL	2-inch diameter PVC	9.90	188.50	200.66	7.90	9.90	190.50	188.50
PZ-17	ILF	2,699.53	-9,933.31	198.60	5/23/02	ATL	2-inch diameter PVC	10.20	188.40	200.99	8.20	10.20	190.40	188.40
PZ-18	ILF	3,100.32	-9,930.31	208.60	5/21/02	ATL	2-inch diameter PVC	11.90	196.70	210.96	6.90	11.90	201.70	196.70
PZ-19	ILF	3,103.66	-9,933.61	207.20	5/21/02	ATL	2-inch diameter PVC	10.50	196.70	209.47	5.50	10.50	201.70	196.70
PZ-20	ILF	3,107.65	-9,939.05	205.50	5/21/02	ATL	2-inch diameter PVC	8.70	196.80	208.10	3.70	8.70	201.80	196.80
PZ-21	ILF	3,109.13	-9,941.03	205.00	5/21/02	ATL	2-inch diameter PVC	8.60	196.40	207.75	3.60	8.60	201.40	196.40
PZ-22	ILF	3,109.92	-9,942.97	205.30	5/21/02	ATL	2-inch diameter PVC	9.40	195.90	207.72	4.40	9.40	200.90	195.90
PZ-23	PSP	5,126.80	-9,324.30	227.30	4/19/06	ATL	1-inch diameter PVC	16.00	211.30	231.80	1.00	16.00	226.30	211.30
PZ-24[a]	PSP	5,208.60	-9,327.80	225.40	4/19/06	ATL	1-inch diameter PVC	12.00	213.40	225.20	2.00	12.00	223.40	213.40

Table 1
Monitoring Well and Piezometer Construction
2024 Periodic Review Report
Reynolds Metals Company (NYSDEC Site Code 645009)
Massena East, New York

Facility Location and ID														
Monitoring Well ID	Site	Alcoa Coordinates[1]		Ground Elevation (feet)	Date Installed	Company	Material Type and Size	Depth of Well (feet)	Bottom of Hole Elevation (feet)	Top of Inner Casing (feet)	Screen			
											Depth		Elevation	
		Northing	Easting								Top (feet)	Bottom (feet)	Top (feet)	Bottom (feet)
PZ-25[a]	PSP	5,255.90	-9,327.20	224.30	4/19/06	ATL	1-inch diameter PVC	12.00	212.30	224.10	1.50	12.00	222.80	212.30
PZ-26[a]	PSP	5,317.60	-9,331.50	224.00	4/19/06	ATL	1-inch diameter PVC	12.00	212.00	223.80	1.50	12.00	222.50	212.00
PZ-27[a]	PSP	5,335.10	-9,265.10	224.10	4/20/06	ATL	1-inch diameter PVC	11.00	213.10	223.90	0.75	11.00	223.35	213.10
PZ-28[a]	PSP	5,291.90	-9,401.80	224.30	4/20/06	ATL	1-inch diameter PVC	12.00	212.30	224.10	1.50	12.00	222.80	212.30
PZ-29	PSP	5,174.00	-9,439.90	225.10	4/20/06	ATL	1-inch diameter PVC	9.50	215.60	229.30	1.50	9.00	223.60	216.10
PZ-30	PSP	5,121.60	-9,388.20	226.50	4/19/06	ATL	1-inch diameter PVC	9.10	217.40	231.50	0.75	9.00	225.75	217.50
PZ-31	PSP	5,054.80	-9,387.80	227.30	4/20/06	ATL	1-inch diameter PVC	12.00	215.30	231.80	1.50	12.00	225.80	215.30
PZ-32	BMP	4,572.60	-10,091.50	246.70	4/17/06	ATL	1-inch diameter PVC	11.10	235.60	251.47	0.70	11.00	246.00	235.70
PZ-33	BMP	4,584.30	-10,132.60	244.20	4/17/06	ATL	1-inch diameter PVC	12.00	232.20	249.03	1.50	12.00	242.70	232.20
PZ-34	BMP	4,591.20	-10,163.50	241.50	4/17/06	ATL	1-inch diameter PVC	10.20	231.30	246.36	1.50	10.00	240.00	231.50
PZ-35	BMP	4,603.20	-10,192.00	240.30	4/18/06	ATL	1-inch diameter PVC	6.00	234.30	244.98	0.75	6.00	239.55	234.30
PZ-36	BMP	4,615.10	-10,222.40	239.30	4/18/06	ATL	1-inch diameter PVC	6.50	232.80	243.85	1.00	6.50	238.30	232.80
PZ-37	BMP	4,129.30	-10,108.80	240.10	4/18/06	ATL	1-inch diameter PVC	16.00	224.10	244.54	0.75	16.00	239.35	224.10
PZ-38	BMP	4,100.70	-10,119.60	239.70	4/18/06	ATL	1-inch diameter PVC	12.00	227.70	244.15	1.50	12.00	238.20	227.70
PZ-39	BMP	4,061.80	-10,127.30	229.30	4/20/06	ATL	1-inch diameter PVC	4.00	225.30	233.63	0.75	4.00	228.55	225.30
PZ-40	BMP	4,024.70	-10,136.60	228.10	4/20/06	ATL	1-inch diameter PVC	2.00	226.10	232.65	0.50	2.00	227.60	226.10
PZ-41	BMP	3,993.80	-10,137.30	228.70	4/20/06	ATL	1-inch diameter PVC	2.00	226.70	232.64	0.50	2.00	228.20	226.70
PZ-42	BMP	4,106.20	-9,846.50	238.20	4/18/06	ATL	1-inch diameter PVC	15.00	223.20	242.72	3.00	13.00	235.20	225.20
PZ-43	BMP	4,083.20	-9,841.60	238.80	4/18/06	ATL	1-inch diameter PVC	16.00	222.80	243.20	1.00	16.00	237.80	222.80
PZ-44	BMP	4,027.80	-9,840.10	225.00	4/18/06	ATL	1-inch diameter PVC	12.00	213.00	229.01	1.50	12.00	223.50	213.00
PZ-45	BMP	3,997.60	-9,837.00	223.20	4/18/06	ATL	1-inch diameter PVC	12.00	211.20	228.24	1.50	12.00	221.70	211.20
PZ-46	BMP	3,962.60	-9,835.00	223.20	4/18/06	ATL	1-inch diameter PVC	7.50	215.70	227.69	1.50	7.50	221.70	215.70
PZ-47	ILF	2,666.55	-9,948.29	192.55	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-48	ILF	2,664.64	-9,943.86	192.76	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-49	ILF	2,621.17	-9,578.61	192.63	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-50	ILF	2,618.77	-9,582.24	192.76	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-51	ILF	2,751.74	-9,308.03	198.90	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-52	ILF	2,754.22	-9,302.20	198.70	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-53	ILF	2,338.60	-9,459.86	191.60	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-54	ILF	2,342.46	-9,456.01	191.64	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-55	ILF	2,132.46	-9,191.93	192.23	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-56	ILF	2,136.99	-9,191.10	192.55	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-57	ILF	2,077.21	-8,794.79	192.30	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-58	ILF	2,080.97	-8,793.47	192.48	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-59	ILF	2,824.95	-8,538.55	191.82	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-60	ILF	2,828.77	-8,539.85	191.70	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-61	ILF	2,743.96	-8,561.26	191.17	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-62	ILF	2,741.57	-8,563.22	191.10	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-63	ILF	2,575.54	-8,590.12	190.72	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-64	ILF	2,578.08	-8,595.12	190.76	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-65	ILF	3,120.40	-7,794.92	201.86	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-66	ILF	3,126.77	-7,800.31	202.25	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]

Table 1
Monitoring Well and Piezometer Construction
2024 Periodic Review Report
Reynolds Metals Company (NYSDEC Site Code 645009)
Massena East, New York

Facility Location and ID														
Monitoring Well ID	Site	Alcoa Coordinates[1]		Ground Elevation (feet)	Date Installed	Company	Material Type and Size	Depth of Well (feet)	Bottom of Hole Elevation (feet)	Top of Inner Casing (feet)	Screen			
											Depth		Elevation	
		Northing	Easting								Top (feet)	Bottom (feet)	Top (feet)	Bottom (feet)
PZ-67	ILF	2,730.85	-8,036.21	192.15	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-68	ILF	2,734.27	-8,034.03	192.29	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-69	ILF	2,978.47	-7,644.46	200.27	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-70	ILF	2,981.21	-7,641.61	200.32	9/29/08 - 10/10/08	ATL	2-inch diameter PVC	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]	---[4]
PZ-71S	ILF	3,162.50	-9,883.48	209.69	7/13/10	ATL	1-inch diameter PVC	35	174.69	212.75	10.00	20.00	199.69	189.69
PZ-71D	ILF	3,162.25	-9,883.43	209.69	7/13/10	ATL	1-inch diameter PVC	35	174.69	212.61	25.00	35.00	184.69	174.69
PZ-72	ILF	3,170.60	-9,871.20	209.94	7/14/10	ATL	1-inch diameter PVC	21	188.94	212.67	10.00	20.00	199.94	189.94
PZ-73S	ILF	3,303.15	-9,630.74	210.67	8/19/10	ATL	1-inch diameter PVC	34	176.67	209.94	15.00	20.00	195.67	190.67
PZ-73D	ILF	3,303.32	-9,630.92	210.67	819/10	ATL	1-inch diameter PVC	34	176.67	210.17	27.50	32.50	183.17	178.17
PZ-74D	ILF	3,303.48	-9,615.68	210.93	8/20/10	ATL	1-inch diameter PVC	34	176.93	210.40	27.50	32.50	183.43	178.43
PZ-74S	ILF	3,303.37	-9,615.76	210.93	8/20/10	ATL	1-inch diameter PVC	34	176.93	210.30	15.00	20.00	195.93	190.93
PZ-75S	ILF	3,210.91	-9,243.21	224.06	7/22/10	ATL	1-inch diameter PVC	46.5	177.56	226.91	16.75	21.75	207.31	202.31
PZ-75D	ILF	3,210.91	-9,243.18	224.06	7/22/10	ATL	1-inch diameter PVC	46.5	177.56	226.90	40.50	45.50	183.56	178.56
PZ-76	ILF	3,211.73	-9,227.95	224.00	7/23/10	ATL	1-inch diameter PVC	46.5	177.50	226.25	40.50	45.50	183.50	178.50
PZ-77	ILF	3,226.95	-9,785.88	210.77	5/24/12	ATL	1-inch diameter PVC	35	175.77	213.53	30.00	35.00	180.77	175.77
PZ-78	ILF	3,302.14	-9,640.86	210.14	5/17/12	ATL	1-inch diameter PVC	35	175.14	210.14	30.00	35.00	180.14	175.14
PZ-79	ILF	3,241.10	-9,378.50	218.90	5/16/12	ATL	1-inch diameter PVC	35	183.90	221.36	30.00	35.00	188.90	183.90
Extraction Wells														
EW-01	ILF	3,156.97	-9,891.80	209.32	7/12/10	ATL	4-inch diameter PVC	55	154.32	212.47	26.00	36.00	183.32	173.32
EW-02	ILF	3,302.29	-9,640.66	210.72	8/18/10	ATL	4-inch diameter PVC	47	163.72	210.13	25.00	35.00	185.72	175.72
EW-03	ILF	3,209.90	-9,253.30	224.06	7/21/10	ATL	4-inch diameter PVC	57	167.06	226.30	38.00	48.00	186.06	176.06
EW-04	ILF	3,314.00	-9,455.20	218.73	5/23/12	ATL	4-inch diameter PVC	49	169.73	218.13	37.00	47.00	181.73	171.73
EW-05	ILF	3,223.40	-9,306.60	223.88	5/16/12	ATL	4-inch diameter PVC	50	173.88	226.55	38.00	48.00	185.88	175.88
EW-06	ILF	3,224.80	-9,129.90	221.55	5/14/12	ATL	4-inch diameter PVC	54	167.55	224.39	42.00	52.00	179.55	169.55

Notes:
Table prepared by CDM Smith.
[a] Decommissioned with NYSDEC approval in 2022.
[1] The northings and eastings listed are based on Alcoa's coordinate system. This system is based on the benchmark location King's Bench, which is located just west of Alcoa's Building 60.
[2] Destroyed during construction.
[3] Borrow Pit
[4] Information was determined to be inaccurate. Information not available.
[5] Information was determined to be inaccurate. Information not available.
--- = Well data unavailable
ATL = Atlantic Testing Company
BMP = Black Mud Pond
East P-Lot = East Parking Lot
ILF = Industrial Landfill
NYD = North Yard
PSP = Potliner Storage Pad
PVC = polyvinyl chloride
WCC = Woodward Clyde Consultants

Table 2
Groundwater Monitoring Schedule
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site	Monitoring Well	Parameters	Sampling Frequency	Water Level Frequency
Black Mud Pond (OU2)	MPOF1402S[1]	---		M
	MPOF1403D[1]	---		M
	MPOG1601S[1]	---		M
	MPOG1603D[1]	---		M
	MW-11SR	CN Free, F, PCBs Total, Sulfate	S	S
	MW-12S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-12D	---		S
	MW-13S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-14S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-15S-87	CN Free, F, PCBs Total, Sulfate	S	S
	MW-15S-91	---		S
	MW-20-85S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-20-85D	---		S
	MW-21-85S	---		S
	MW-21-85D	---		S
	MW-22-85S [2]	CN Free, F, PCBs Total, Sulfate	S	S
	MW-22-85D	---		S
	MW-23-85S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-23-85D	---		S
	MW-25-85S	---		S
	MW-29S	---		S
	MW-30S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-31SR	CN Free, F, PCBs Total, Sulfate	S	S
	MW-56	CN Free, F, PCBs Total, Sulfate	S	S
	PZ-32 thru PZ-43[1]	---		---[3]
	PZ-44 thru PZ-46 [2]	CN Free, F, PCBs Total, Sulfate	S	---[3]
Industrial Landfill (OU1)	PZ-1 thru PZ-22[1]	---	---	M
	MW-10S	CN Free, F, PCBs Total, Sulfate	Q	Q
	MW-39S	CN Free, F, PCBs Total, Sulfate	Q	Q
	MW-40S	CN Free, F, PCBs Total, Sulfate	Q	Q
	MW-45	CN Free, F, PCBs Total, Sulfate	Q	Q
	Wetlands (2 Locations)	CN Free, F, PCBs Total, Sulfate	Q	---
	EW-01	---	---	M
	EW-02	---	---	M
	EW-03	---	---	M
	EW-04	---	---	M
	EW-05	---	---	M
	EW-06	---	---	M
	PZ-76 thru PZ-79	---	---	M
	MW-46	---	---	M
	MW-47	---	---	M
Former Potliner Storage Pad (OU5)	MW-3S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-26S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-27S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-28S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-33S	CN Free	S	S
	MW-34S	CN Free	S	S
	MW-35SR	CN Free, F, PCBs Total, Sulfate	S	S
	MW-42	CN Free, F, PCBs Total, Sulfate	S	S
	MW-43	CN Free, F, PCBs Total, Sulfate	S	S
	MW-44	CN Free, F, PCBs Total, Sulfate	S	S
	PZ-23, PZ-29, PZ-30 & PZ-31[1,5]	---		M

Table 2
Groundwater Monitoring Schedule
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site	Monitoring Well	Parameters	Sampling Frequency	Water Level Frequency
North Yard (OU3)	MW-1S	---		S
	MW-16S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-17S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-18	CN Free, F, PCBs Total, Sulfate	S	S
	MW-19S	CN Free, F, PCBs Total, Sulfate	S	S
	MW-36	CN Free, F, PCBs Total, Sulfate	S	S
	MW-37	CN Free, F, PCBs Total, Sulfate	S	S
	MW-38	CN Free, F, PCBs Total, Sulfate	S	S
	MW-41	CN Free, F, PCBs Total, Sulfate	S	S
	MW-48	CN Free, F, PCBs Total, Sulfate	S	S
	MW-49	CN Free, F, PCBs Total, Sulfate	S	S
	MW-50	CN Free, F, PCBs Total, Sulfate	S	S
	MW-51	CN Free, F, PCBs Total, Sulfate	S	S
	MW-52	CN Free, F, PCBs Total, Sulfate	S	S
	MW-54	CN Free, F, PCBs Total, Sulfate	S	S
	MW-55	CN Free, F, PCBs Total, Sulfate	S	S
	French Drain	CN Free, F, Sulfate	S	---
Rectifier Yard (OU6)	Rypondpipe	PCBs	---[4]	---

Notes:
Table prepared by CDM Smith.
[1] Piezometer
[2] Incorporated into quarterly sampling in October 2008 to determine if fluoride is migrating from the Black Mud Pond.
[3] Groundwater levels no longer collected; inaccurate measurements due to upheaval of piezometers.
[4] Sampling discontinued per letter from NYSDEC dated January 3, 2013.
[5] PZ-24 through PZ-28 were damaged and decommissioned on December 13th and 14th of 2021

--- = Not sampled
Al = Aluminum
CN = Cyanide
F = Fluoride
M = Monthly
NYSDEC = New York State Department of Environmental Conservation
PCB = polychlorinated biphenyl
Q = Quarterly
S = Semiannual
WAD = Weak Acid Dissociable

The use of free cyanide in place of total and WAD cyanide was approved by NYSDEC in an email dated March 15, 2023

NYSDEC. 2013. Alcoa, Inc. - Massena East Plant (Former Reynolds Metals Co.), Site# 645009 Post Closure Monitoring. January 03.

Table 3
Groundwater Elevation Measurements at BMP
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Monthly Piezometer Water Level Elevations (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
MPOF1402S	237.200	227.490	227.810	227.410	227.450	227.420	227.440	227.590	227.590	227.620	227.510	227.570
MPOF1403D	229.780	229.800	229.540	229.920	229.570	229.330	229.240	229.760	229.650	228.910	228.740	228.800
MPOG1601S	231.660	231.330	231.480	231.200	231.310	231.350	231.170	231.460	231.680	231.640	231.590	231.430
MPOG1603D	231.810	231.580	231.530	231.980	231.580	231.470	231.380	231.510	231.650	231.570	231.490	231.490

Semiannual Water Level Elevations and Comprehensive Groundwater Monitoring Elevations (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
MW-11SR	---	---	---	236.800	---	233.050	---	234.780	233.880	---	---	234.910
MW-12D	---	---	---	239.380	---	235.160	---	235.020	235.600	---	---	238.450
MW-12S	---	---	---	244.270	---	241.140	---	241.100	241.160	---	---	240.730
MW-13D	---	---	---	240.100	---	---	---	237.730	---	---	---	---
MW-13S	---	---	---	239.660	---	238.480	---	238.620	238.630	---	---	238.680
MW-14S	---	---	---	244.130	---	240.930	---	240.980	241.320	---	---	239.100
MW-15S-87	---	---	---	237.330	---	229.060	---	227.850	230.520	---	---	226.240
MW-15S-91	---	---	---	228.760	---	226.440	---	226.470	226.900	---	---	225.850
MW-20-85-D	---	---	---	223.980	---	217.240	---	222.910	222.570	---	---	223.190
MW-20-85-S	---	---	---	215.250	---	214.130	---	214.950	215.370	---	---	214.540
MW-21-85D	---	---	---	223.730	---	223.800	---	223.580	---	---	---	---
MW-21-85S	---	---	---	223.250	---	223.780	---	223.580	---	---	---	---
MW-22-85-D	---	---	---	238.180	---	235.270	---	234.730	235.780	---	---	237.840
MW-22-85-S	---	---	---	241.070	---	236.800	---	237.600	238.640	---	---	239.050
MW-23-85-D	---	---	---	240.250	---	237.260	---	237.600	237.940	---	---	239.290
MW-23-85-S	---	---	---	239.980	---	235.130	---	236.040	236.700	---	---	234.910
MW-30S	---	---	---	228.920	---	228.280	---	227.950	228.210	---	---	228.720
MW-31SR	---	---	---	225.300	---	219.680	---	218.580	220.150	---	---	218.560
MW-56	---	236.040	---	236.980	---	---	---	233.360	---	---	---	---
PZ-44	---	---	---	224.340	---	---	---	223.990	---	---	---	---
PZ-45	---	---	---	222.880	---	---	---	221.780	---	---	---	---
PZ-46	---	---	---	222.710	---	---	---	220.130	---	---	---	---

Notes:
--- = Water levels were not measured
feet msl = feet above mean sea level

Table 4
Groundwater Elevations at Industrial Landfill
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Monthly Piezometer Water Level Elevations (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
Transect 1												
PZ-1[a]	206.790	206.120	206.050	206.870	205.430	206.060	205.850	205.900	205.680	204.370	204.290	204.040
PZ-2	200.640	200.530	200.510	200.540	200.570	200.560	200.600	200.570	200.590	200.560	200.430	200.450
Drain Invert	*200*	*200*	*200*	*200*	*200*	*200*	*200*	*200*	*200*	*200*	---	*200*
PZ-3	202.290	202.140	201.970	202.150	202.130	202.100	202.030	202.090	202.160	202.100	202.040	201.780
PZ-4	201.790	201.600	201.420	201.540	201.390	201.380	201.430	201.400	201.630	201.540	201.510	201.360
PZ-5[b]	203.710	203.290	204.110	203.900	202.430	201.790	201.660	201.870	202.050	201.030	200.950	200.760
Transect 2												
PZ-6[a]	191.240	191.080	191.040	191.120	191.280	191.110	191.430	191.120	191.220	191.000	190.920	190.830
PZ-7	192.420	191.530	191.320	191.750	190.400	190.450	190.480	190.110	190.770	190.140	190.090	189.980
Drain Invert	*188.2*	*188.2*	*188.2*	*188.2*	*188.2*	*188.2*	*188.2*	*188.2*	*188.2*	*188.2*	---	*188.2*
PZ-8	193.600	192.290	192.220	191.550	191.000	190.620	190.580	191.300	191.180	190.200	190.190	190.030
PZ-9[b]	193.350	192.640	192.550	193.290	191.740	191.610	191.670	191.640	191.640	190.900	190.800	190.810
Transect 3												
PZ-10[a]	189.300	189.090	189.250	188.070	189.140	189.070	189.160	189.030	189.120	188.950	188.800	188.790
PZ-11	188.870	189.080	189.250	192.960	189.170	189.040	189.920	189.030	189.070	188.930	188.880	188.780
Drain Invert	*186.1*	*186.1*	*186.1*	*186.1*	*186.1*	*186.1*	*186.1*	*186.1*	*186.1*	*186.1*	---	*186.1*
PZ-12	190.500	190.390	190.490	191.010	190.220	190.050	189.990	190.120	190.650	189.970	189.880	189.720
PZ-13[b]	190.570	190.410	190.590	191.060	190.230	190.070	190.140	190.110	190.640	189.960	189.830	189.960
Transect 4												
PZ-14[a]	189.570	189.780	189.840	189.880	189.660	189.600	189.510	189.660	189.570	189.410	189.380	189.380
PZ-15	189.900	189.750	189.900	189.880	189.630	189.570	189.450	189.640	189.530	189.410	189.370	189.340
Drain Invert	*189.9*	*189.9*	*189.9*	*189.9*	*189.9*	*189.9*	*189.9*	*189.9*	*189.9*	*189.9*	---	*189.9*
PZ-16	190.090	190.090	190.210	190.300	190.000	189.900	189.970	189.900	189.980	189.590	189.190	189.200
PZ-17[b]	190.200	190.320	190.430	190.540	190.200	190.090	190.260	190.080	190.040	189.730	189.660	189.380
Transect 5												
PZ-18[a]	201.920	201.610	201.520	201.640	201.170	201.100	201.240	201.130	201.160	200.860	200.790	200.720
PZ-19	201.320	200.910	200.870	200.900	200.900	200.870	201.090	200.890	200.900	200.820	200.740	200.690
Drain Invert	*196.5*	*196.5*	*196.5*	*196.5*	*196.5*	*196.5*	*196.5*	*196.5*	*196.5*	*196.5*	---	*196.5*
PZ-20	196.160	195.970	195.950	196.020	195.950	195.920	196.100	195.950	195.950	195.920	195.850	195.750
PZ-21	201.530	200.880	200.820	201.720	200.040	200.090	200.480	200.460	200.090	199.740	199.330	199.550
PZ-22[b]	201.810	201.250	201.210	202.280	200.570	200.560	200.670	200.710	200.700	200.000	199.600	201.210

Table 4
Groundwater Elevations at Industrial Landfill
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Monthly Water Level Elevations (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
EW-01[1]	189.360	190.070	190.170	191.470	190.110	190.540	192.320	191.180	191.320	189.450	189.320	189.600
EW-02[1]	200.120	195.290	195.160	210.130	200.840	196.690	195.960	196.780	196.170	195.630	195.910	195.470
EW-03[1]	---	---	---	---	---	---	---	---	---	---	---	---
EW-04[1]	197.260	200.400	200.320	203.150	200.150	200.450	200.580	200.790	200.000	192.110	192.410	192.390
EW-05[1]	179.640	206.930	207.110	190.610	190.330	207.940	207.540	190.670	192.050	190.500	189.640	190.570
EW-06[1]	188.080	204.770	188.880	186.370	188.720	187.460	187.510	188.770	188.940	187.430	187.780	187.750
PZ-76	199.920	217.180	217.640	206.960	205.100	207.030	207.310	207.030	205.000	203.280	203.370	203.100
PZ-77	205.060	205.680	205.990	205.990	205.460	205.440	206.310	205.550	205.420	204.110	203.920	204.020
PZ-78	210.140	206.360	206.830	210.140	204.880	205.470	205.310	205.410	204.910	202.260	202.210	202.040
PZ-79	206.990	208.660	208.960	209.760	207.220	208.100	208.180	207.840	207.220	204.580	204.570	204.420

Quarterly Water Level Elevations and Comprehensive Groundwater Monitoring Elevations (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
MW-10S	---	210.890	---	211.620	---	210.340	---	210.170	209.540	---	---	209.360
MW-39S	---	192.090	---	192.360	---	191.650	---	191.330	191.840	---	---	190.820
MW-40S	---	192.490	---	194.320	---	191.500	---	191.730	192.210	---	---	191.480
MW-45	---	192.150	---	192.310	---	191.280	---	191.370	191.740	---	---	191.300

Notes:

1. The groundwater extraction system was completed in summer/fall 2012 and monthly groundwater level measurements were initiatied in November 2012.
2. Elevations are given in feet above mean sea level (msl).

--- = Water levels were not measured

a = Upslope side of drain

b = Downslope side of drain

Table 5
Groundwater Elevation Data for Former Potliner Storage Pad Area
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Monthly Piezometer Water Level Elevations at the Former Potliner Storage Pad Area (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
PZ-23	220.220	219.660	220.120	221.470	219.930	221.070	220.890	220.190	219.800	218.920	218.830	218.890
PZ-29	222.550	224.840	225.160	223.470	223.460	223.060	222.910	222.760	222.580	221.500	221.540	221.460
PZ-30	223.410	223.420	223.140	225.120	224.620	224.780	224.650	224.970	223.480	222.520	222.470	222.350
PZ-31	225.200	225.480	225.620	226.170	225.750	225.950	225.770	225.920	225.060	224.520	224.790	224.450
Semiannual Water Level Elevations and Comprehensive Groundwater Monitoring Elevations (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
MW-03S	---	---	---	223.360	---	221.110	---	221.180	221.360	---	---	219.990
MW-26S	---	---	---	215.580	---	214.600	---	215.230	214.940	---	---	214.110
MW-27S	---	---	---	221.950	---	221.530	---	226.990	221.460	---	---	221.010
MW-28S	---	---	---	215.040	---	214.980	---	214.860	214.380	---	---	212.810
MW-33S	---	---	---	213.550	---	212.510	---	212.940	212.930	---	---	212.350
MW-34S	---	---	---	205.980	---	205.510	---	206.380	206.640	---	---	205.250
MW-35SR	---	---	---	202.760	---	197.520	---	198.030	197.460	---	---	197.020
MW-42	---	---	---	190.730	---	188.980	---	190.270	190.870	---	---	192.260
MW-43	---	---	---	201.560	---	199.690	---	200.030	199.810	---	---	199.780
MW-44	---	---	---	201.760	---	200.130	---	200.260	200.040	---	---	199.600

Notes:
--- = Water levels were not measured
feet msl = feet above mean sea level

Table 6
Groundwater Elevation Data for North Yard
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Semiannual Water Level Elevations and Comprehensive Groundwater Monitoring Elevations (feet msl)												
Location	**Jan-24**	**Feb-24**	**Mar-24**	**Apr-24**	**Jun-7**	**Jun-27**	**Jul-24**	**Aug-24**	**Sep-24**	**Oct-24**	**Nov-24**	**Dec-24**
MW-16S	---	---	---	210.100	---	210.270	---	211.690	210.120	---	---	209.970
MW-17S	---	---	---	218.040	---	215.410	---	215.690	215.850	---	---	214.470
MW-18S	---	---	---	208.470	---	208.490	---	208.660	208.450	---	---	208.840
MW-19S	---	---	---	214.600	---	213.850	---	213.970	213.730	---	---	212.640
MW-36	---	---	---	202.080	---	200.570	---	201.410	201.610	---	---	198.920
MW-37	---	---	---	204.520	---	202.650	---	203.960	204.450	---	---	203.010
MW-38	---	---	---	196.180	---	193.130	---	195.860	196.390	---	---	195.200
MW-41	---	---	---	200.350	---	198.650	---	200.250	200.340	---	---	198.900
MW-48	---	186.450	---	187.050	---	---	---	187.070	---	---	---	---
MW-49	---	181.440	---	181.890	---	---	---	180.620	---	---	---	---
MW-50	---	175.180	---	176.700	---	---	---	175.260	---	---	---	---
MW-51	---	173.330	---	173.420	---	---	---	173.310	---	---	---	---
MW-52	---	175.630	---	176.150	---	---	---	168.280	---	---	---	---
MW-54	---	159.470	---	159.170	---	---	---	160.180	---	---	---	---
MW-55	---	161.790	---	162.160	---	---	---	160.860	---	---	---	---

Notes:
--- = Water levels were not measured
feet msl = feet above mean sea level

Table 7
Summary of Groundwater and Surface Water Recovered from Leachate Collection System
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	1999		2000		2001		2002	
	Monthly Quantity[1]	Cumulative Total[2]	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	1,050,370	32,130,235	610,802	40,289,510	788,334	53,062,064	1,453,705	64,312,202
February	923,917	33,054,152	896,705	41,186,215	973,735	54,035,799	857,292	65,169,494
March	1,849,073	34,903,225	1,652,232	42,838,447	1,339,237	55,375,036	947,248	66,116,742
April	655,542	35,558,767	1,725,352	44,563,799	984,693	56,359,729	1,407,871	67,524,613
May	366,192	35,924,959	1,848,988	46,412,787	1,155,585	57,515,314	1,139,489	68,664,102
June	398,666	36,323,625	750,211	47,162,998	1,018,585	58,533,899	1,696,212	70,360,314
July	362,670	36,686,295	941,527	48,104,525	533,859	59,067,758	1,037,040	71,397,354
August	324,197	37,010,492	904,441	49,008,966	373,359	59,441,117	404,739	71,802,093
September	384,107	37,394,599	1,114,891	50,123,857	511,950	59,953,067	250,070	72,052,163
October	612,392	38,006,991	676,925	50,800,782	810,097	60,763,164	548,279	72,600,442
November	864,205	38,871,196	752,861	51,553,643	913,594	61,676,758	99,951	72,700,393
December	807,512	39,678,708	720,087	52,273,730	1,181,739	62,858,497	470,219	73,170,612
Total for Year	8,598,843		12,595,022		10,584,767		10,312,115	

Table 7
Summary of Groundwater and Surface Water Recovered from Leachate Collection System
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	2003		2004		2005		2006	
	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	485,292	73,655,904	542,455	79,438,633	835,126	86,590,770	1,362,171	99,692,745
February	270,328	73,926,232	365,950	79,804,583	606,581	87,197,351	1,008,073	100,700,818
March	680,754	74,606,986	417,067	80,221,650	1,075,735	88,273,086	974,915	101,675,733
April	659,503	75,266,489	531,531	80,753,181	1,578,756	89,851,842	1,018,407	102,694,140
May	209,581	75,476,070	757,966	81,511,147	1,004,319	90,856,161	1,067,701	103,761,841
June	57,707	75,533,777	573,294	82,084,441	1,087,759	91,943,920	908,499	104,670,340
July	539,202	76,072,979	464,176	82,548,617	787,793	92,731,713	900,737	105,571,077
August	429,135	76,502,114	524,652	83,073,268	464,180	93,195,893	923,987	106,495,064
September	266,833	76,768,947	601,062	83,674,330	1,392,139	94,588,032	664,535	107,159,599
October	518,425	77,287,372	458,382	84,132,712	1,224,686	95,812,718	1,060,939	108,220,538
November	788,915	78,076,287	686,725	84,819,437	1,443,978	97,256,696	987,672	109,208,210
December	819,891	78,896,178	936,207	85,755,644	1,073,878	98,330,574	1,110,134	110,318,344
Total for Year	5,725,566		6,859,466		12,574,930		11,987,770	

Table 7
Summary of Groundwater and Surface Water Recovered from Leachate Collection System
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	2007		2008		2009		2010	
	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	1,062,731	111,381,075	1,270,876	122,547,623	866,518	134,961,301	816,164	146,895,958
February	796,631	112,177,706	791,750	123,339,373	958,576	135,919,877	352,554	147,248,512
March	868,294	113,046,000	1,363,158	124,702,531	958,324	136,878,201	1,708,541	148,957,053
April	1,365,215	114,411,215	1,161,146	125,863,677	1,323,900	138,202,101	858,398	149,815,451
May	700,943	115,112,158	1,035,462	126,899,139	879,889	139,081,990	666,947	150,482,398
June	749,659	115,861,817	916,180	127,815,319	1,083,979	140,165,969	553,689	151,036,087
July	783,801	116,645,618	823,865	128,639,184	1,502,728	141,668,697	773,778	151,809,865
August	932,751	117,578,369	409,618	129,048,802	586,191	142,254,888	688,691	152,498,556
September	414,710	117,993,079	1,539,979	130,588,781	1,071,028	143,325,916	702,620	153,201,176
October	1,075,316	119,068,395	734,558	131,323,339	656,505	143,982,421	1,187,114	154,388,290
November	1,207,852	120,276,247	775,246	132,098,585	965,066	144,947,487	1,332,834	155,721,124
December	1,000,500	121,276,747	1,996,198	134,094,783	1,132,307	146,079,794	855,752	156,576,876
Total for Year	10,958,403		12,818,036		11,985,011		10,497,082	

Table 7
Summary of Groundwater and Surface Water Recovered from Leachate Collection System
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	2011		2012		2013		2014	
	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	692,092	157,268,968	239,266	166,513,302	72,080	171,817,090	1,160,922	185,050,785
February	456,807	157,725,775	200,134	166,713,436	1,417,987	173,235,077	1,053,588	186,104,373
March	747,466	158,473,241	652,700	167,366,136	971,837	174,206,914	1,270,812	187,375,185
April	877,571	159,350,812	998,391	168,364,527	1,027,140	175,234,053	1,360,116	188,735,301
May	1,322,988	160,673,800	1,297,721	169,662,248	2,025,696	177,259,749	724,358	189,459,659
June	1,032,015	161,705,815	435,391	170,097,639	223,696	177,483,445	625,109	190,084,768
July	852,459	162,558,274	274,020	170,371,659	517,609	178,001,054	247,653	190,332,421
August	759,707	163,317,981	159,842	170,531,501	1,515,543	179,516,598	254,140	190,586,561
September	896,171	164,214,152	131,811	170,663,312	1,032,732	180,549,330	343,200	190,929,761
October	813,781	165,027,933	367,737	171,031,049	1,218,524	181,767,854	164,565	191,094,326
November	795,888	165,823,821	366,636	171,397,685	1,305,517	183,073,371	143,484	191,237,810
December	450,215	166,274,036	347,325	171,745,010	816,492	183,889,863	310,644	191,548,454
Total for Year	9,697,160		5,470,974		12,144,853[3.]		7,658,591	

Table 7
Summary of Groundwater and Surface Water Recovered from Leachate Collection System
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	2015		2016		2017		2018		2019	
	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	236,808	191,785,262	956,258	198,731,048	371,407	202,776,083	711,422	205,561,470	368,598	210,696,037
February	130,820	191,916,082	682,521	199,413,569	326,000	203,102,083	753,905	206,315,375	311,684	211,007,721
March	371,849	192,287,931	536,722	199,950,291	287,196	203,389,279	758,170	207,073,545	556,955	211,564,677
April	724,852	193,012,783	734,806	200,685,097	475,254	203,864,533	918,655	207,992,200	738,038	212,302,715
May	193,342	193,206,125	299,789	200,984,886	258,801	204,123,334	553,580	208,545,780	841,547	213,144,262
June	234,258	193,440,383	250,726	201,235,612	129,593	204,252,927	351,824	208,897,604	399,813	213,544,075
July	219,080	193,659,463	171,429	201,407,041	201,341	204,454,268	151,173	209,048,777	211,742	213,755,816
August	960,915	194,620,378	126,052	201,533,093	118,198	204,572,466	162,529	209,211,306	136,435	213,892,252
September	561,980	195,182,358	108,064	201,641,157	45,468	204,617,934	154,088	209,365,394	59,944	213,952,196
October	666,793	195,849,151	158,391	201,799,548	13,097	204,631,031	195,095	209,560,489	359,539	214,311,734
November	883,148	196,732,299	247,515	202,047,063	105,726	204,736,757	405,146	209,965,635	779,330	215,091,065
December	1,042,491	197,774,790	357,613	202,404,676	113,291	204,850,048	361,804	210,327,439	623,942	215,715,007
Total for Year	6,226,336		4,629,886		2,445,372		5,477,391		5,387,568	

Table 7
Summary of Groundwater and Surface Water Recovered from Leachate Collection System
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	2020		2021		2022		2023		2024	
	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	618,532	216,333,539	397,333	220,597,235	301,270	226,054,762	858,484	231,655,002	745,600	237,112,426
February	399,439	216,732,978	385,451	220,982,686	443,996	226,498,758	770,906	232,425,908	629,327	237,741,753
March	1,112,532	217,845,510	940,862	221,923,548	808,590	227,307,348	713,048	233,138,956	760,510	238,502,263
April	706,726	218,552,236	535,385	222,458,933	827,580	228,134,928	798,232	233,937,188	1,000,872	239,503,135
May	322,308	218,874,544	470,330	222,929,263	800,458	228,935,386	704,616	234,641,804	457,014	239,960,149
June	211,298	219,085,842	217,625	223,146,888	356,818	229,292,204	224,844	234,866,648	256,420	240,216,569
July	82,158	219,168,000	247,166	223,394,054	294,630	229,586,834	272,372	235,139,020	365,652	240,582,221
August	83,448	219,251,448	229,558	223,623,612	272,182	229,859,016	178,270	235,317,290	606,994	241,189,215
September	59,575	219,311,023	230,518	223,854,130	155,772	230,014,788	129,422	235,446,712	399,144	241,588,359
October	132,408	219,443,431	402,958	224,257,088	170,300	230,185,088	154,722	235,601,434	198,010	241,786,369
November	289,693	219,733,124	853,471	225,110,559	193,928	230,379,016	209,740	235,811,174	172,754	241,959,123
December	466,778	220,199,902	642,933	225,753,492	417,502	230,796,518	555,652	236,366,826	364,140	242,323,263
Total for Year	4,484,895		5,553,590		5,043,026		5,570,308		5,956,437	

Notes:

[1] Groundwater and surface water quantities are given in gallons.

[2] Cumulative totals of groundwater and surface water transferred from the Landfill are calculated since October 1995.

[3] Value is approximated due to flowmeter malfunction.

Table 8
Extraction Well Flowmeter Readings
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Date	EW-01 Gallons Collected	EW-02 Gallons Collected	EW-04 Gallons Collected	EW-05 Gallons Collected	EW-06 Gallons Collected
12/26/2023	4,550,850	3,684,100	8,504,100	1,463,100	3,358,200
1/2/2024	4,583,050	3,739,400	8,566,600	1,463,100	3,387,000
2/5/2024	4,609,650	3,779,100	8,603,300	1,468,000	3,410,500
3/4/2024	4,636,550	3,816,600	8,627,300	1,475,900	3,434,000
4/29/2024	4,670,850	3,852,100	8,645,500	1,486,800	3,463,500
5/28/2024	4,698,050	3,867,100	8,661,900	1,495,500	3,487,300
6/24/2024	4,721,650	3,878,400	8,684,400	1,502,900	3,508,700
7/29/2024	4,750,850	3,902,000	8,712,800	1,502,800	3,536,500
8/26/2024	4,774,350	3,936,000	8,734,100	1,509,100	3,559,100
9/30/2024	4,804,250	3,957,300	8,762,200	1,519,400	3,586,600
10/28/2024	4,827,750	3,970,600	8,795,900	1,526,700	3,607,400
11/25/2024	4,851,750	3,982,500	8,829,800	1,533,400	3,627,100
12/30/2024	4,882,950	4,012,100	8,829,800	1,542,900	3,652,400
Calc.Total 2024	**332,100**	**328,000**	**325,700**	**79,800**	**294,200**

Notes:
Records of flow from EW-05 were lower than other wells due to equipment failures of transducers and pump controllers in 2024. Additional details are provided in **Section 4.2**.

Table 9
Extraction Well Analytical Results
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

	EW-01		EW-02		EW-04		EW-05		EW-06	
Date	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)
Feb-24	0.28	0.0051	1.59	0.0489	0.21	0.0921	0.12	0.0579	0.62	0.436
May-24	0.27	0.0058	1.93	0.0641	0.41	0.0858	0.11	0.0454	0.83	0.461
Aug-24	0.25	0.0065	1.47	0.073	0.21	0.0884	0.11	0.0585	0.61	0.397
Nov-24	0.26	0.0067	0.26	0.0225	0.21	0.079	0.12	0.051	0.79	0.0696

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
Black Mud Pond (BMP)										
MW-11SR										
Total Aluminum	mg/L	NR	0.005	13	2.3	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.31	0.062	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.1	2.6	0.39	0.25	0.74	0.49	'2/2	No Trend
Sulfate	mg/L	250	110	3,200	937	170	312	241	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-12S										
Total Aluminum	mg/L	NR	0.1	70	9.7	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.52	0.084	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.004	0.002	2/3	--
Fluoride	mg/L	1.5	1.3	16	11	7.6	8.8	8.2	'2/2	Decreasing
Sulfate	mg/L	250	220	1,040	598	766	806	786	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.24	0.034	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.24	0.036	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.24	0.034	0.032	0.032	0.032	0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.24	0.034	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-13S										
Total Aluminum	mg/L	NR	0.005	4.8	1.2	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.82	0.08	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.62	17	7.8	15	19	17	'2/2	Stable
Sulfate	mg/L	250	57	4,133	1,713	877	932	904	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.25	0.04	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.037	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.23	0.078	--	--	--	--	--
MW-14S										
Total Aluminum	mg/L	NR	0.017	32	5.5	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.3	0.06	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.003	0.002	'1/2	--
Fluoride	mg/L	1.5	0.25	0.77	0.52	0.42	0.8	0.61	'2/2	Stable
Sulfate	mg/L	250	251	526	355	356	371	364	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.24	0.036	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.24	0.036	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.24	0.036	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.24	0.036	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-15S-87										
Total Aluminum	mg/L	NR	0.005	30	4.5	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.33	0.064	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.9	4.8	1.9	2.7	3.6	3.2	'2/2	Increasing
Sulfate	mg/L	250	37	1,800	393	133	216	174	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.098	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.15	0.035	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.14	0.034	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.14	0.033	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.082	0.04	--	--	--	--	--
MW-20-85-S										
Total Aluminum	mg/L	NR	0.008	5.3	0.46	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.28	0.063	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.027	0.014	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.042	0.8	0.23	0.23	0.64	0.43	'2/2	Stable
Sulfate	mg/L	250	165	323	254	287	307	297	'2/2	Increasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.084	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.084	0.033	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
MW-22-85-S										
Total Aluminum	mg/L	NR	0.28	12	3.3	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.5	0.068	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.042	0.88	0.25	0.23	0.25	0.24	'2/2	Stable
Sulfate	mg/L	250	365	614	440	413	423	418	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.086	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.086	0.032	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
MW-23-85-S										
Total Aluminum	mg/L	NR	0.06	84	5.9	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.3	0.052	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.1	0.81	0.36	0.36	0.77	0.56	'2/2	Stable
Sulfate	mg/L	250	145	459	358	382	406	394	'2/2	Increasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.037	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.25	0.037	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.037	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.25	0.037	0.032	0.032	0.032	'0/2	--
MW-30S										
Total Aluminum	mg/L	NR	0.22	308	54	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.61	0.11	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.003	0.002	'1/2	--
Fluoride	mg/L	1.5	4.3	54	7.1	4.3	6	5.2	'2/2	Decreasing
Sulfate	mg/L	250	46	342	113	56	93	75	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.036	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.25	0.037	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.036	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.25	0.036	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-31SR										
Total Aluminum	mg/L	NR	0.005	33	5.3	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.31	0.055	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.51	3.7	1.1	0.79	1.2	1	'2/2	Stable
Sulfate	mg/L	250	140	417	195	183	186	184	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.25	0.038	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-56										
Cyanide (Free)	mg/L	0.2	0.003	0.003	0.003	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.47	0.47	0.47	0.32	0.75	0.54	'2/2	--
Sulfate	mg/L	250	340	340	340	260	284	272	'2/2	--
PZ-44										
Total Aluminum	mg/L	NR	0.13	37	6.8	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.37	0.054	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.003	0.002	'1/2	--
Fluoride	mg/L	1.5	1.2	5.7	3.8	3.7	5	4.3	'2/2	Stable
Sulfate	mg/L	250	23	1,660	899	713	928	820	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.034	0.031	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.034	0.031	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.034	0.031	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.034	0.031	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
PZ-45										
Total Aluminum	mg/L	NR	0.65	34	8.3	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.28	0.06	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.5	3.8	1.4	1	1.4	1.2	'2/2	Stable
Sulfate	mg/L	250	66	1,960	1,051	893	1,070	982	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.036	0.031	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.036	0.031	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.036	0.031	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.036	0.031	0.032	0.032	0.032	'0/2	--
PZ-46										
Total Aluminum	mg/L	NR	2.2	11	5.5	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.01	0.12	0.051	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.002	0.002	'1/2	--
Fluoride	mg/L	1.5	1.2	3.9	2.2	2.8	3	2.9	'2/2	Stable
Sulfate	mg/L	250	17	1,680	1,030	856	1,200	1,028	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.03	0.065	0.035	--	--	--	--	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.03	0.065	0.035	--	--	--	--	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.03	0.065	0.035	--	--	--	--	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.03	0.065	0.035	--	--	--	--	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
Industrial Landfill (ILF)										
MW-10S										
Total Aluminum	mg/L	NR	0.005	69	2.6	0.025	0.025	0.025	'0/1	--
Dissolved Aluminum	mg/L	NR	0.004	0.26	0.053	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.001	0.001	0.003	0.002	'1/4	--
Fluoride	mg/L	1.5	0.01	1.8	0.23	0.13	0.61	0.25	'5/5	Stable
Sulfate	mg/L	250	70	550	166	71	120	97	'5/5	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.24	0.033	0.01	0.032	0.027	'0/4	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.24	0.033	0.01	0.032	0.027	'0/4	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.24	0.033	0.01	0.032	0.027	'0/4	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.24	0.033	0.01	0.032	0.027	'0/4	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-39S										
Total Aluminum	mg/L	NR	0.005	468	29	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.8	0.095	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.002	0.001	'1/4	--
Fluoride	mg/L	1.5	0.23	4	1.6	2.5	3.5	2.9	'4/4	Increasing
Sulfate	mg/L	250	52	477	134	99	211	139	'4/4	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-40S										
Total Aluminum	mg/L	NR	0.004	69	1.1	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.28	0.051	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/4	--
Fluoride	mg/L	1.5	0.1	0.99	0.23	0.18	0.62	0.31	'4/4	Stable
Sulfate	mg/L	250	0.21	181	71	56	63	59	'4/4	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.033	0.01	0.032	0.027	'0/4	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	1.2	0.047	0.01	0.032	0.027	'0/4	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.033	0.01	0.032	0.027	'0/4	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.25	0.033	0.01	0.032	0.027	'0/4	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-45										
Total Aluminum	mg/L	NR	0.043	140	23	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.003	0.72	0.06	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.002	0.008	0.004	0.001	0.011	0.004	'3/4	--
Fluoride	mg/L	1.5	0.26	1.1	0.52	0.42	0.82	0.56	'4/4	Probably Decreasing
Sulfate	mg/L	250	74	871	345	428	510	465	'4/4	Increasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.26	0.034	0.01	0.032	0.027	'0/4	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
SLPWETE										
Total Aluminum	mg/L	NR	0.042	4.9	0.66	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.05	0.033	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.016	0.006	0.001	0.003	0.001	'1/4	--
Fluoride	mg/L	1.5	0.05	11	3.3	2.7	4.6	3.6	'4/4	Stable
Sulfate	mg/L	250	0.2	199	22	3.9	8.1	6.5	'4/4	No Trend
PCB-1242 (Aroclor 1242)	ug/L	NR	0.03	0.033	0.032	0.01	0.032	0.027	'0/4	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.03	0.033	0.032	0.01	0.032	0.027	'0/4	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.03	0.033	0.032	0.01	0.032	0.027	'0/4	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.011	0.033	0.031	0.01	0.032	0.027	'0/4	--
SLPWETW										
Total Aluminum	mg/L	NR	0.01	4.5	0.43	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.002	0.05	0.034	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.004	0.002	'3/4	--
Fluoride	mg/L	1.5	0.21	6.1	1.9	0.7	0.94	0.86	'4/4	Decreasing
Sulfate	mg/L	250	0.5	158	26	0.5	5.9	2	'4/4	Probably Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.03	0.035	0.032	0.01	0.032	0.027	'0/4	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.03	0.035	0.032	0.01	0.032	0.027	'0/4	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.03	0.072	0.033	0.01	0.032	0.027	'0/4	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.015	0.035	0.032	0.01	0.032	0.027	'0/4	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
Potliner Storage Pad (PSP)										
MW-03S										
Total Aluminum	mg/L	NR	0.19	39	6.3	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.006	0.44	0.088	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.005	0.003	'1/2	--
Fluoride	mg/L	1.5	5.9	32	16	8.4	9.5	9	'2/2	Decreasing
Sulfate	mg/L	250	10	715	455	148	186	167	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.037	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.038	0.032	0.13	0.081	'1/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	2.2	0.072	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-26S										
Total Aluminum	mg/L	NR	0.12	82	14	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	1.4	0.13	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	2.7	6.9	4.6	4.3	4.8	4.5	'2/2	Decreasing
Sulfate	mg/L	250	88	447	242	162	165	164	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.088	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.18	0.039	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.44	0.039	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-27S										
Total Aluminum	mg/L	NR	0.046	28	4.8	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.4	0.066	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.025	8.9	4.1	2.6	2.7	2.6	'2/2	Stable
Sulfate	mg/L	250	140	407	263	322	336	329	'2/2	Increasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.25	0.035	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-28S										
Total Aluminum	mg/L	NR	0.01	22	4.7	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.49	0.061	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.003	0.02	0.011	0.007	0.013	0.01	'2/2	--
Fluoride	mg/L	1.5	9.5	170	39	9.9	10	10	'2/2	Stable
Sulfate	mg/L	250	154	690	331	168	175	172	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.092	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.15	0.036	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.13	0.034	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.13	0.033	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-33S										
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
MW-34S										
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-35SR										
Total Aluminum	mg/L	NR	2.5	145	35	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	1.9	0.15	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.2	2.6	0.84	0.6	1.2	0.88	'2/2	Stable
Sulfate	mg/L	250	52	878	539	624	895	760	'2/2	Increasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.024	0.086	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.024	0.28	0.058	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.021	0.56	0.055	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.024	0.12	0.035	0.032	0.032	0.032	'0/2	--
MW-42										
Total Aluminum	mg/L	NR	2.2	666	61	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.003	2.4	0.28	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'1/2	--
Fluoride	mg/L	1.5	1.3	48	23	15	32	23	'2/2	Stable
Sulfate	mg/L	250	66	1,910	1,098	1,070	1,230	1,150	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.087	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.087	0.033	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.13	0.035	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-43										
Total Aluminum	mg/L	NR	2	92	31	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	1.6	0.15	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.09	0.9	0.27	0.18	0.65	0.41	'2/2	Stable
Sulfate	mg/L	250	109	222	164	106	154	130	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.03	0.086	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.03	0.086	0.033	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.03	0.12	0.034	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.03	0.12	0.035	0.032	0.032	0.032	'0/2	--
MW-44										
Total Aluminum	mg/L	NR	0.029	16	1.1	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.002	0.2	0.049	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.1	1.1	0.29	0.25	0.66	0.46	'2/2	Stable
Sulfate	mg/L	250	86	275	153	104	141	122	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.03	0.088	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.03	0.088	0.033	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.03	0.12	0.034	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.03	0.12	0.034	0.032	0.032	0.032	'0/2	--
North Yard (NY)										
FDRAIN1										
Total Cyanide	mg/L	NR	0.002	2.4	0.96	--	--	--	--	Stable
Fluoride	mg/L	1.5	12	38	24	19	23	21	'2/2	Stable
Sulfate	mg/L	250	68	2,180	438	156	156	156	'1/1	Decreasing

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-16S										
Total Aluminum	mg/L	NR	0.002	7.8	0.23	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.004	0.2	0.048	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.001	0.001	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	1.1	640	21	6.9	7.3	7.1	'2/2	Stable
Sulfate	mg/L	250	136	3,600	450	252	256	254	'2/2	Probably Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.58	0.051	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.18	0.035	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.14	0.036	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	1.6	0.28	--	--	--	--	--
MW-17S										
Total Aluminum	mg/L	NR	0.005	21	2.6	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	1.6	0.097	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.1	2.8	0.99	0.84	1.2	1	'2/2	Increasing
Sulfate	mg/L	250	72	670	241	89	149	119	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.024	0.09	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.024	0.47	0.039	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.024	0.13	0.035	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.024	0.13	0.033	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.18	0.054	--	--	--	--	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-18S										
Total Aluminum	mg/L	NR	0.034	18	1.3	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	3.2	0.37	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	4.9	4,800	170	16	19	17	'2/2	Decreasing
Sulfate	mg/L	250	178	20,000	1,395	210	250	230	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.084	0.034	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.22	0.065	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.13	0.037	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.034	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	1.1	0.3	--	--	--	--	--
MW-19S										
Total Aluminum	mg/L	NR	0.005	12	0.71	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.002	0.2	0.046	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.46	10	4.8	2.7	3	2.8	'2/2	Decreasing
Sulfate	mg/L	250	64	490	224	69	80	75	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.088	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.14	0.034	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.12	0.034	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-36										
Total Aluminum	mg/L	NR	0.085	743	58	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	2.8	0.39	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.002	0.003	0.003	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.38	41	3.3	1.4	1.9	1.7	'2/2	Decreasing
Sulfate	mg/L	250	42	1,640	531	330	362	346	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.083	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.083	0.032	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.25	0.036	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-37										
Total Aluminum	mg/L	NR	0.005	473	63	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.014	1.5	0.13	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.1	2.2	0.45	0.26	0.27	0.26	'2/2	No Trend
Sulfate	mg/L	250	28	383	283	285	316	300	'2/2	Stable
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.088	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.16	0.034	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.47	0.043	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.035	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-38										
Total Aluminum	mg/L	NR	0.13	822	87	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.002	4.1	0.41	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.35	2.7	0.64	0.42	0.5	0.46	'2/2	Stable
Sulfate	mg/L	250	41	284	178	188	194	191	'2/2	Increasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.09	0.033	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.12	0.035	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.16	0.035	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.13	0.033	0.032	0.032	0.032	'0/2	--
Total PCBs	ug/L	0.09	0.032	0.032	0.032	--	--	--	--	--
MW-41										
Total Aluminum	mg/L	NR	0.18	68	17	--	--	--	--	--
Dissolved Aluminum	mg/L	NR	0.005	0.39	0.082	--	--	--	--	--
Cyanide (Free)	mg/L	0.2	0.001	0.003	0.002	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.16	0.61	0.3	0.19	0.67	0.43	'2/2	Stable
Sulfate	mg/L	250	131	922	371	258	269	264	'2/2	Decreasing
PCB-1242 (Aroclor 1242)	ug/L	NR	0.01	0.088	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.01	0.088	0.032	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.01	0.12	0.034	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.01	0.12	0.033	0.032	0.032	0.032	'0/2	--
MW-48										
Cyanide (Free)	mg/L	0.2	0.001	0.031	0.016	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.19	0.22	0.21	0.17	0.21	0.19	'2/2	--
Sulfate	mg/L	250	138	138	138	183	198	190	'2/2	--
PCB-1242 (Aroclor 1242)	ug/L	NR	0.032	0.048	0.04	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.032	0.048	0.04	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.032	0.048	0.04	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.032	0.048	0.04	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-49										
Cyanide (Free)	mg/L	0.2	0.031	0.031	0.031	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	1.7	1.7	1.7	1.2	1.3	1.2	'2/2	--
Sulfate	mg/L	250	132	132	132	126	134	130	'2/2	--
PCB-1242 (Aroclor 1242)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
MW-50										
Cyanide (Free)	mg/L	0.2	0.038	0.038	0.038	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.37	0.37	0.37	0.63	1.3	0.98	'2/2	--
Sulfate	mg/L	250	362	362	362	261	374	318	'2/2	--
PCB-1242 (Aroclor 1242)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
MW-51										
Cyanide (Free)	mg/L	0.2	0.001	0.038	0.02	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.18	0.21	0.19	0.14	0.16	0.15	'2/2	--
Sulfate	mg/L	250	278	278	278	106	109	108	'2/2	--
PCB-1242 (Aroclor 1242)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-52										
Cyanide (Free)	mg/L	0.2	0.002	0.032	0.017	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.14	0.21	0.17	0.19	0.2	0.19	'2/2	--
Sulfate	mg/L	250	278	278	278	276	297	286	'2/2	--
PCB-1242 (Aroclor 1242)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.032	0.049	0.041	0.032	0.032	0.032	'0/2	--
MW-54										
Cyanide (Free)	mg/L	0.2	0.003	0.003	0.003	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.49	0.49	0.49	0.41	0.63	0.52	'2/2	--
Sulfate	mg/L	250	185	185	185	185	192	188	'2/2	--
PCB-1242 (Aroclor 1242)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--

Table 10
Summary of Historical Analytical Results Compared to Results for 2024
2024 Periodic Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Site Area / Location / Parameter	Unit	NYSWQS	Historical Results			2024 Results			2024 Frequency of Detection	Post Closure Trend
			Min	Max	Average	Min	Max	Average		
MW-55										
Cyanide (Free)	mg/L	0.2	0.003	0.003	0.003	0.001	0.001	0.001	'0/2	--
Fluoride	mg/L	1.5	0.31	0.31	0.31	--	--	--	--	--
Sulfate	mg/L	250	157	157	157	--	--	--	--	--
PCB-1242 (Aroclor 1242)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1248 (Aroclor 1248)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1254 (Aroclor 1254)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--
PCB-1260 (Aroclor 1260)	ug/L	NR	0.032	0.032	0.032	0.032	0.032	0.032	'0/2	--

Notes:

1. For calculation of summary statistics (minimum, maximum, and average), 1/2 the report detection limit is used for non-detect values.
2. Summary statistic calculations do not consider rejected samples and rely on historical reported detection limits for calculation of non-detect substitution values.
3. Although there is no NYSWQS established for individual Aroclors, a standard of 0.09 µg/L total PCBs is used.
4. Statistical Analysis displays the results from Plant Closure in 2014. Samples considered are from Q3-present.

'--' = No data due to persistent results below detection or lack of results for the current year
µg/L = micrograms per liter
mg/L = milligrams per liter
ND = Non-detect
NR = Not Regulated
NYCRR = New York Codes, Rules, and Regulations
NYSWQS = New York State Water Quality Standards
PCB = polychlorinated biphenyl
WAD = weak acid dissociable

Table 11
Summary of Groundwater Quantities Removed for BMP
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	1997		1998		1999		2000		2001		2002		2003		2004[3]	
	Monthly Quantity[1]	Cumulative Total[2]	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	62,210	766,370	26,439	1,309,112	21,042	1,530,707	9,213	1,691,692	11,324	1,809,675	9,738	1,902,167	472	1,990,028	1,600[4]	2,050,617
February	41,900	808,270	10,411	1,319,523	20,223	1,550,930	10,179	1,701,871	9,334	1,819,009	8,574	1,910,741	0	1,990,028	2,800[4]	2,053,417
March	39,600	847,870	16,430	1,335,953	11,184	1,562,114	0	1,701,871	11,228	1,830,237	8,090	1,918,831	0	1,990,028	3,100[4]	2,056,517
April	41,550	889,420	4,890	1,340,843	14,271	1,576,385	2,807	1,704,678	9,222	1,839,459	10,109	1,928,940	0	1,990,028	8,000[4]	2,064,517
May	49,620	939,040	6,910	1,347,753	13,831	1,590,216	23,697	1,728,375	9,728	1,849,187	9,669	1,938,609	0	1,990,028	7,816[5]	2,072,333
June	54,730	993,770	24,290	1,372,043	13,359	1,603,575	3,286	1,731,661	6,990	1,856,177	4,675	1,943,284	0	1,990,028	8,935[5]	2,081,268
July	69,210	1,062,980	24,800	1,396,843	12,566	1,616,141	13,876	1,745,537	10,240	1,866,417	9,907	1,953,191	44,991	2,035,019	9,074[5]	2,090,342
August	60,625	1,123,605	24,800	1,421,643	11,118	1,627,259	8,245	1,753,782	8,920	1,875,337	11,316	1,964,507	5,598	2,040,617	10,329[5]	2,100,671
September	52,047	1,175,652	20,800	1,442,443	14,010	1,641,269	11,447	1,765,229	9,935	1,885,272	3,975	1,968,482	2,800	2,043,417	10,977[5]	2,111,648
October	45,176	1,220,828	24,800	1,467,243	14,799	1,656,068	2,615	1,767,844	7,157	1,892,429	8,596	1,977,078	2,800	2,046,217	11,664[5]	2,123,312
November	30,345	1,251,173	20,960	1,488,203	13,276	1,669,344	18,235	1,786,079	0	1,892,429	9,804	1,986,882	0	2,046,217	12,285[5]	2,135,597
December	31,500	1,282,673	21,462	1,509,665	13,135	1,682,479	12,272	1,798,351	0	1,892,429	2,674	1,989,556	2,800	2,049,017	15,691[5]	2,151,288
Total for Year	578,513		226,992		172,814		115,872		94,078		97,127		59,461		102,271	

Table 11
Summary of Groundwater Quantities Removed for BMP
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

	2005[4]		2006[4]		2007[4]		2008[4]		2009[4]		2010[4]		2011[4]		2012[4]	
Month	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	5,600[4]	2,156,888	7,200	2,282,888	10,400	2,399,688	8,400	2,497,488	8,400	2,588,088	8,600	2,678,088	10,400	2,784,888	5,600	2,885,688
February	9,600[4]	2,166,488	11,200	2,294,088	11,200	2,410,888	6,600	2,504,088	5,600	2,593,688	5,600	2,683,688	8,400	2,793,288	8,400	2,894,088
March	11,200[4]	2,177,688	8,400	2,302,488	9,400	2,420,288	8,400	2,512,488	5,600	2,599,288	12,200	2,695,888	11,200	2,804,488	8,400	2,902,488
April	8,600[4]	2,186,288	8,400	2,310,888	9,600	2,429,888	5,600	2,518,088	5,600	2,604,888	5,600	2,701,488	8,400	2,812,888	11,200	2,913,688
May	16,800[4]	2,203,088	8,400	2,319,288	6,600	2,436,488	8,400	2,526,488	10,400	2,615,288	11,200	2,712,688	8,400	2,821,288	5,600	2,919,288
June	11,200[4]	2,214,288	11,200	2,330,488	8,400	2,444,888	5,600	2,532,088	5,600	2,620,888	5,600	2,718,288	5,600	2,826,888	8,400	2,927,688
July	10,400[4]	2,224,688	8,400	2,338,888	4,200	2,449,088	8,400	2,540,488	11,200	2,632,088	8,600	2,726,888	5,600	2,832,488	2,800	2,930,488
August	0	2,224,688	8,400	2,347,288	10,200	2,459,288	8,400	2,548,888	8,400	2,640,488	11,200	2,738,088	5,600	2,838,088	8,400	2,938,888
September	15,800[4]	2,240,488	8,400	2,355,688	10,200	2,469,488	5,600	2,554,488	5,600	2,646,088	5,600	2,743,688	11,200	2,849,288	2,800	2,941,688
October	8,400[4]	2,248,888	14,000	2,369,688	5,600	2,475,088	5,600	2,560,088	8,400	2,654,488	14,000	2,757,688	8,400	2,857,688	2,800	2,944,488
November	11,200[4]	2,260,088	8,400	2,378,088	8,400	2,483,488	8,400	2,568,488	8,400	2,662,888	11,200	2,768,888	8,400	2,866,088	8,400	2,952,888
December	15,600[4]	2,275,688	11,200	2,389,288	5,600	2,489,088	11,200	2,579,688	6,600	2,669,488	5,600	2,774,488	14,000	2,880,088	11,200	2,964,088
Total for Year	124,400		113,600		99,800		90,600		89,800		105,000		105,600		84,000	

Table 11
Summary of Groundwater Quantities Removed for BMP
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

	2013[4]		2014[4]		2015[4]		2016[4]		2017[4,6]		2018[7]		2019[8]		2020	
Month	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	5,600	2,969,688	8,400	3,070,488	8,400	3,185,288	2,800	3,241,688	5,000	3,321,488	6,967	3,396,857	7,209	3,458,272	1,051	3,518,011
February	5,600	2,975,288	8,400	3,078,888	5,600	3,190,888	0	3,241,688	7,600	3,329,088	5,673	3,402,530	3,126	3,461,398	9,313	3,527,324
March	8,400	2,983,688	5,600	3,084,488	14,400	3,205,288	11,200	3,252,888	8,400	3,337,488	6,042	3,408,572	7,430	3,468,828	6,294	3,533,618
April	8,400	2,992,088	8,400	3,092,888	2,800	3,208,088	5,600	3,258,488	2,800	3,340,288	0	3,408,572	3,319	3,472,147	4,792	3,538,410
May	5,600	2,997,688	8,400	3,101,288	5,600	3,213,688	8,400	3,266,888	8,400	3,348,688	5,117	3,413,689	6,015	3,478,162	4,686	3,543,096
June	8,400	3,006,088	8,400	3,109,688	8,400	3,222,088	2,800	3,269,688	8,400	3,357,088	6,269	3,419,958	6,242	3,484,404	6,394	3,549,490
July	8,400	3,014,488	14,000	3,123,688	2,800	3,224,888	5,600	3,275,288	5,600	3,362,688	5,192	3,425,150	4,976	3,489,380	4,582	3,554,072
August	8,400	3,022,888	14,000	3,137,688	5,600	3,230,488	8,400	3,283,688	7,700	3,370,388	5,133	3,430,283	4,994	3,494,374	6,414	3,560,486
September	8,400	3,031,288	11,200	3,148,888	2,800	3,233,288	8,400	3,292,088	0	3,370,388	6,930	3,437,213	3,730	3,498,104	5,138	3,565,624
October	11,200	3,042,488	11,200	3,160,088	0	3,233,288	7,600	3,299,688	0	3,370,388	2,174	3,439,387	7,416	3,505,520	5,423	3,571,047
November	5,600	3,048,088	8,400	3,168,488	2,800	3,236,088	8,400	3,308,088	0	3,370,388	5,725	3,445,112	5,515	3,511,035	6,730	3,577,777
December	14,000	3,062,088	8,400	3,176,888	2,800	3,238,888	8,400	3,316,488	19502	3,389,890	5,951	3,451,063	5,925	3,516,960	4,021	3,581,798
Total for Year	98,000		114,800		62,000		77,600		73,402		61,173		65,897		64,838	

Table 11
Summary of Groundwater Quantities Removed for BMP
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

	2021		2022		2023		2024	
Month	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total	Monthly Quantity	Cumulative Total
January	6,953	3,588,751	4,763	3,643,654	6,350	3,690,296	1,110	3,737,605
February	4,580	3,593,331	4,407	3,648,061	4,698	3,694,994	1,113	3,738,718
March	3,260	3,596,591	2,901	3,650,962	4,301	3,699,295	815	3,739,533
April	3,308	3,599,899	2,650	3,653,612	4,557	3,703,852	987	3,740,520
May	4,285	3,604,184	2,855	3,656,467	6,066	3,709,918	710	3,741,230
June	3,620	3,607,804	2,881	3,659,348	4,320	3,714,238	470	3,741,700
July	4,325	3,612,129	3,297	3,662,645	5,540	3,719,778	533	3,742,233
August	5,589	3,617,718	4,348	3,666,993	4,280	3,724,058	736	3,742,969
September	4,725	3,622,443	3,417	3,670,410	4,510	3,728,568	1,004	3,743,973
October	4,960	3,627,403	4,401	3,674,811	2,929	3,731,497	892	3,744,865
November	6,260	3,633,663	4,281	3,679,092	3,197	3,734,694	134	3,744,999
December	5,228	3,638,891	4,854	3,683,946	1,801	3,736,495	1,408	3,746,407
Total for Year	57,093		45,055		52,549		9,912*	

Notes:

[1] Groundwater quantities are given in gallons.

[2] Totals are calculated since June 26, 1996, the date when the lined pond was removed and surface water transfer began.

[3] In 2004, all quantities of groundwater were treated at the Outfall 01F cyanide treatment facility.

[4] Quantity based on volume removed by tanker truck.

[5] From May to December 2004, quantity based on flowmeter readings.

[6] Beginning in September 2017, water is collected and shipped offsite via railcar for treatment and disposal. The total accumulated volume between September and December 2017 is 19,502 gallons

[7] Monthly volumes estimated from flow totalizer readings through December 24,2018. Accumulated water was transported offsite in three railcar shipments recorded in April, August and December 2018 totaling 65,919 gallons.

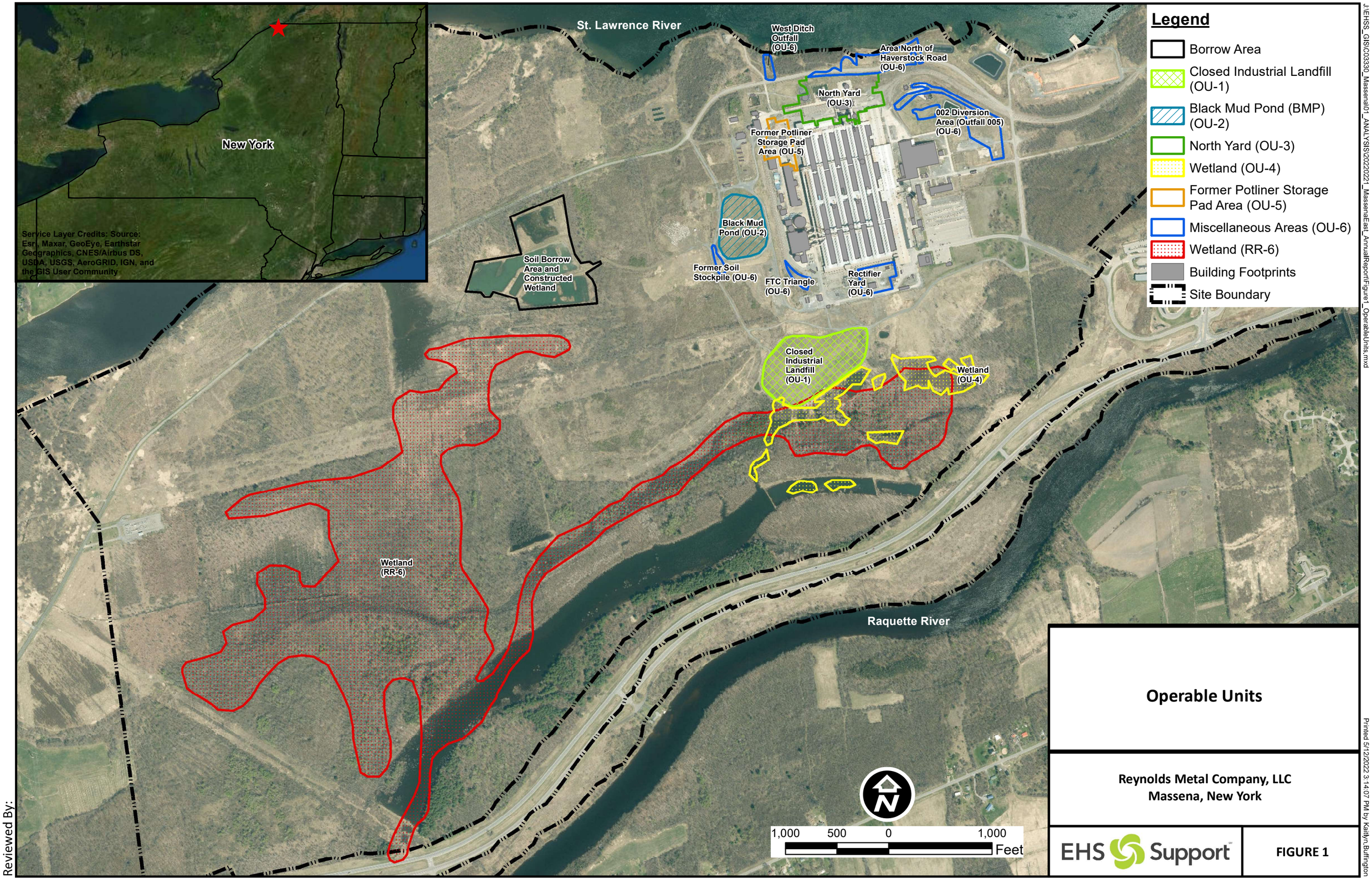
[8] Monthly volumes estimated from flow totalizer readings between December 24,2018 and December 23, 2019. Accumulated water was transported offsite in three railcar shipments recorded in April, August and December 2019. The BMP flowmeter was repaired/reset in October 2019; shipment volumes were used to estimate the volume for this month.

[9] * The volume of groundwater removed from the BMP in 2024 was an erroneous reading due to a flow totalizer malfunction. Accumulated water was transported offsite in three railcar shipments recorded in April, August and December 2018 totaling 61,146 gallons.

Table 12
French Drain Flow Data
2024 Annual Review Report
Reynolds Metal Company (NYSDEC Site Code 645009)
Massena East, New York

Month	Volume (gallons)
January	269,146
February	174,084
March	191,297
April	325,283
May	127,922
June	87,433
July	164,108
August	160,196
September	167,825
October	38,924
November	9,976
December	100,538
2024 Total	**1,716,194**

Figures



Operable Units

Reynolds Metal Company, LLC
Massena, New York

EHS Support

FIGURE 1

Reviewed By:

J:\EHS_GIS\C03330_Massena\01_ANALYSIS\20220221_MassenaEast_AnnualReportFigure1_OperableUnits.mxd

Printed 5/12/2022 3:14:07 PM by Kaitlyn.Buffington

St. Lawrence River

Outfall 008

Outfall 001

Outfall 003

Outfall 002

Outfall 005

Outfall 02E

Outfall 02E (002 Pond overflow) directed to Outfall 005

Black Mud Pond leachate water is transported offsite for treatment

Outfall 01A

Outfall 01C directed to Outfall 003

Outfall 010

Outfall 010 Surface Drainage

Outfall 01C Landfill runoff groundwater/leachate

Surface Runoff to Outfall 010

Outfall 011 to Raquette River Not regulated under the SPDES permit

Outfall 010 to Raquette River via Surface Drainage

Raquette River

Legend

- Outfall 001
- Outfall 002
- Outfall 003
- Outfall 005
- Outfall 008
- Outfall 010
- Outfall 01A
- Outfall 01C

FACILITY OUTFALLS REGULATED UNDER SPDES PERMIT NO. NY0000132

Outfall No.	Receiving Waterbody Discharge Location, Latitude N/Longitude W (deg,min,sec)	Receiving Stream/Class	Monitoring Location, Latitude N/Longitude W (deg,min,sec)
001	44,59,11/74,44,46	St. Lawrence River/A	Same as Receiving Waterbody
01A	See 001	Outfall 001	44,59,03/74,45,19
01C	See 001	Outfall 01A	44,58,37/74,45,09
02E	See 005	Outfall 005	44,59,05/74,44,52
003	44,59,11/74,44,50	St. Lawrence River/A	44,59,07/74,44,57
005	44,59,11/74,44,45	St. Lawrence River/A	Same as Receiving Waterbody
008	44,59,11/74,45,18	St. Lawrence River/A	Same as Receiving Waterbody
010	44,58,33/74,44,38	Raquette River/B	44,58,38/74,44,40

TABLE RETRIEVED FROM REYNOLDS SPDES PERMIT NO. NY0000132

575 287.5 0 575 Feet

Outfall Location Plan

Reynolds Metal Company, LLC
Massena, New York

EHS Support

FIGURE 2

Reviewed By: Jack Horvath

J:\EHS_GIS\C00330_Massena\01_ANALYSIS\20220221_MassenaEast_AnnualReportFigure2_OutfallPlan.mxd

Printed 4/22/2025 11:43:36 AM by Kaitlyn.Buffington

St. Lawrence River

Outfall 002/003

Outfall 001

Outfall 005

Outfall 008

Outfall Watershed 001
0.7 Acres

Outfall Watershed 001
2 Acres

Outfall 02E
(002 pond overflow
directed to Outfall 005)

Outfall Watershed 003
1.1 Acres

Outfall Watershed 002
1.5 Acres

Outfall 01A
(not used)

Outfall 01C directed to
Outfall 003

Outfall Watershed 008
15.5 Acres

Outfall Watershed 001
49.9 Acres

Outfall Watershed 005
31 Acres

Outfall Watershed 002
15.9 Acres

Black Mud Pond Leachate
(transported off-site for treatment)

Extraction Wells
(Directed to Outfall 001)

Outfall Watershed 001
2.4 Acres

Outfall Watershed 010
114.8 Acres

Outfall Watershed 001C/003
13.3 Acres

Outfall 01C
(landfill runoff/
groundwater/leachate directed to
Outfall 003 for treatment)

Outfall 010
to Raquette River
via Surface Drainage

Outfall 011
to Raquette River (not
regulated under SPDES
permit)

Outfall Watershed 011
99.2 Acres

Raquette River

650 325 0 650
Feet

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES

Legend

Outfalls

- Outfall 001
- Outfall 002
- Outfall 003
- Outfall 005
- Outfall 008
- Outfall 010
- Outfall O1A

Outfall Watersheds

- Outfall 001
- Outfall 001C/003
- Outfall 002
- Outfall 003
- Outfall 005
- Outfall 008
- Outfall 010
- Outfall 011

Outfall Locations

Reynolds Metal Company, LLC
Massena, New York

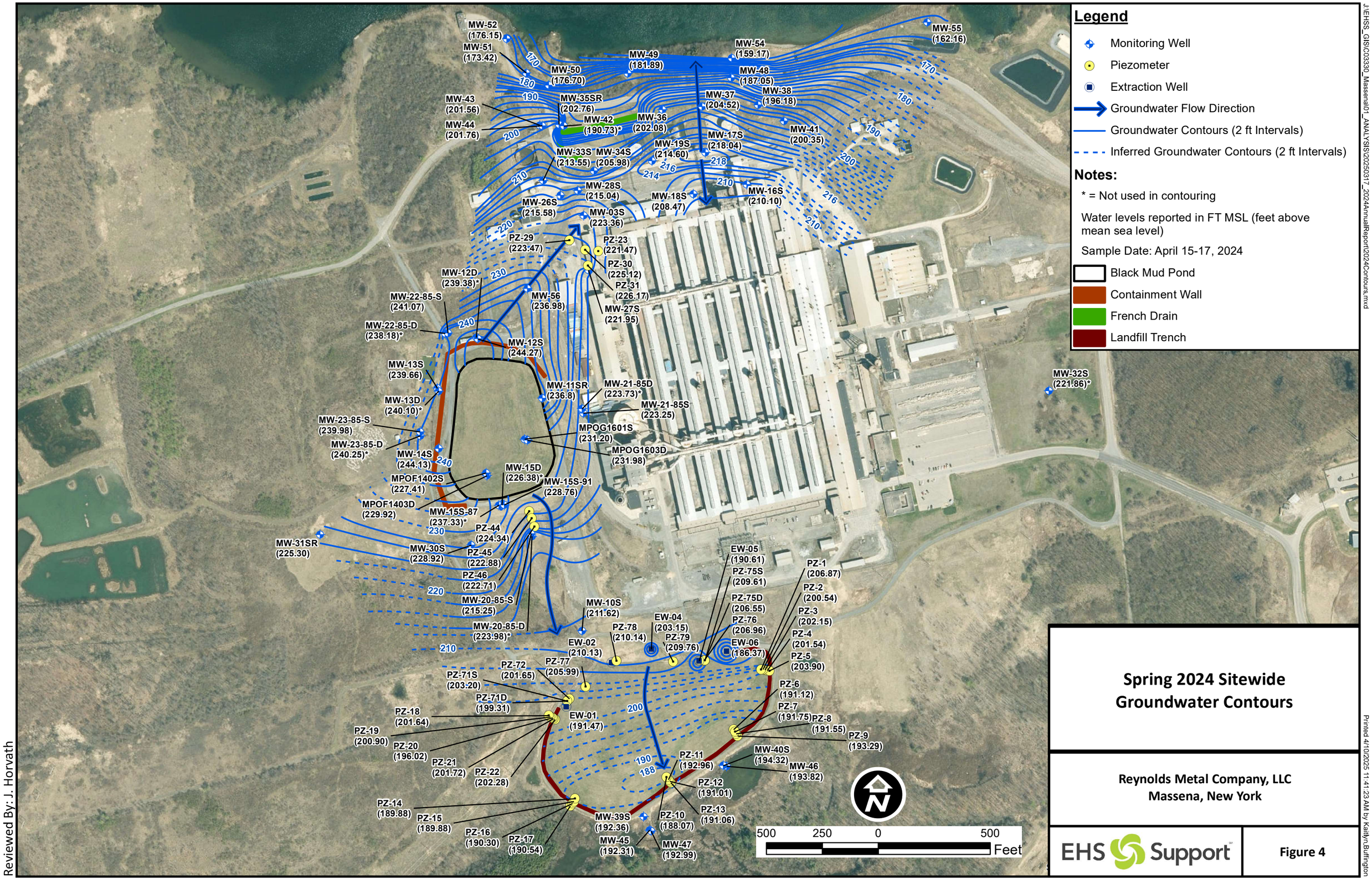
EHS Support

FIGURE 3

Reviewed By:

J:\EHS_GIS\CC0330_Massena\01_ANALYSIS\20220221_MassenaEast_AnnualReportFigure3_OutfallLocations.mxd

Printed 5/12/2022 3:19:20 PM by Kaitlyn.Buffington



Legend

- Monitoring Well
- Piezometer
- Extraction Well
- Groundwater Flow Direction
- Groundwater Contours (2 ft Intervals)
- Inferred Groundwater Contours (2 ft Intervals)

Notes:

* = Not used in contouring

Water levels reported in FT MSL (feet above mean sea level)

Sample Date: April 15-17, 2024

- Black Mud Pond
- Containment Wall
- French Drain
- Landfill Trench

Spring 2024 Sitewide Groundwater Contours

Reynolds Metal Company, LLC
Massena, New York

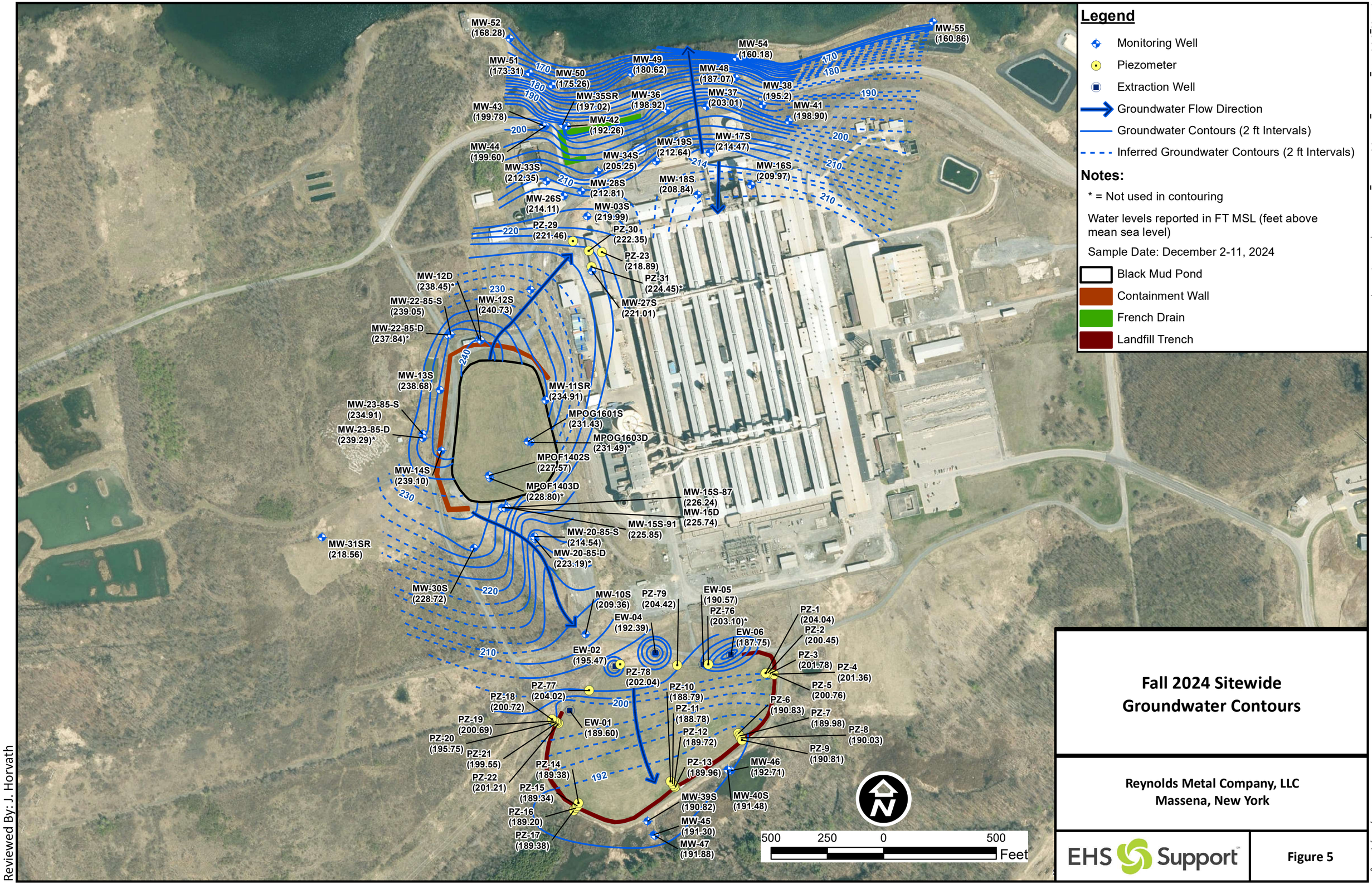
EHS Support

Figure 4

Reviewed By: J. Horvath

J:\EHS_GIS\CI0330_Massena\01_ANALYSIS\20250317_2024AnnualReport\2024Contours.mxd

Printed 4/10/2025 11:41:23 AM by Kaitlyn.Buffington



Fall 2024 Sitewide Groundwater Contours

Reynolds Metal Company, LLC
Massena, New York

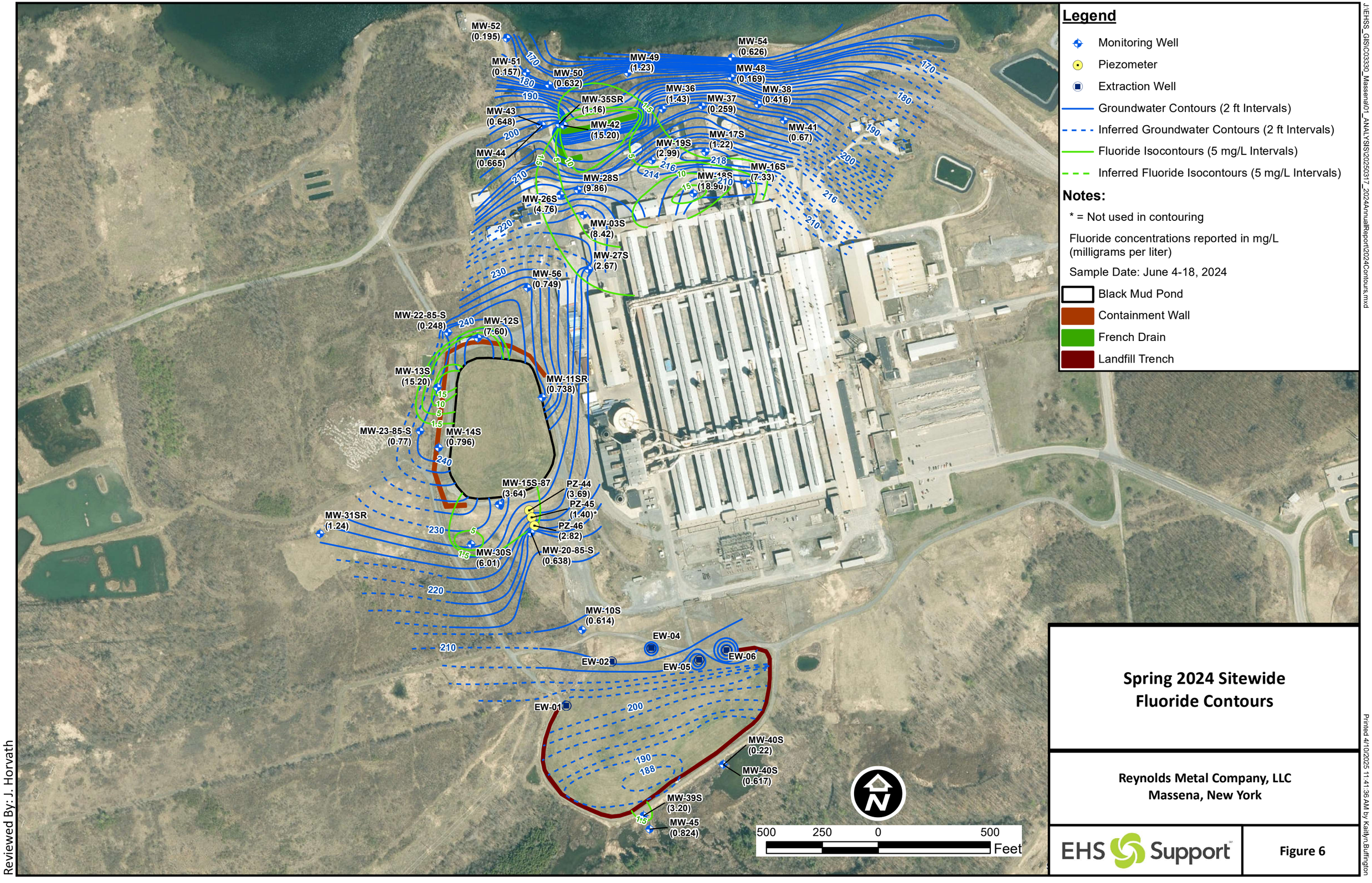
EHS Support

Figure 5

Reviewed By: J. Horvath

J:\EHS_GIS\C03330_Massena\01_ANALYSIS\20250317_2024AnnualReport2024Contours.mxd

Printed 4/10/2025 11:41:29 AM by KaitlynBuffington



Reviewed By: J. Horvath

Spring 2024 Sitewide Fluoride Contours

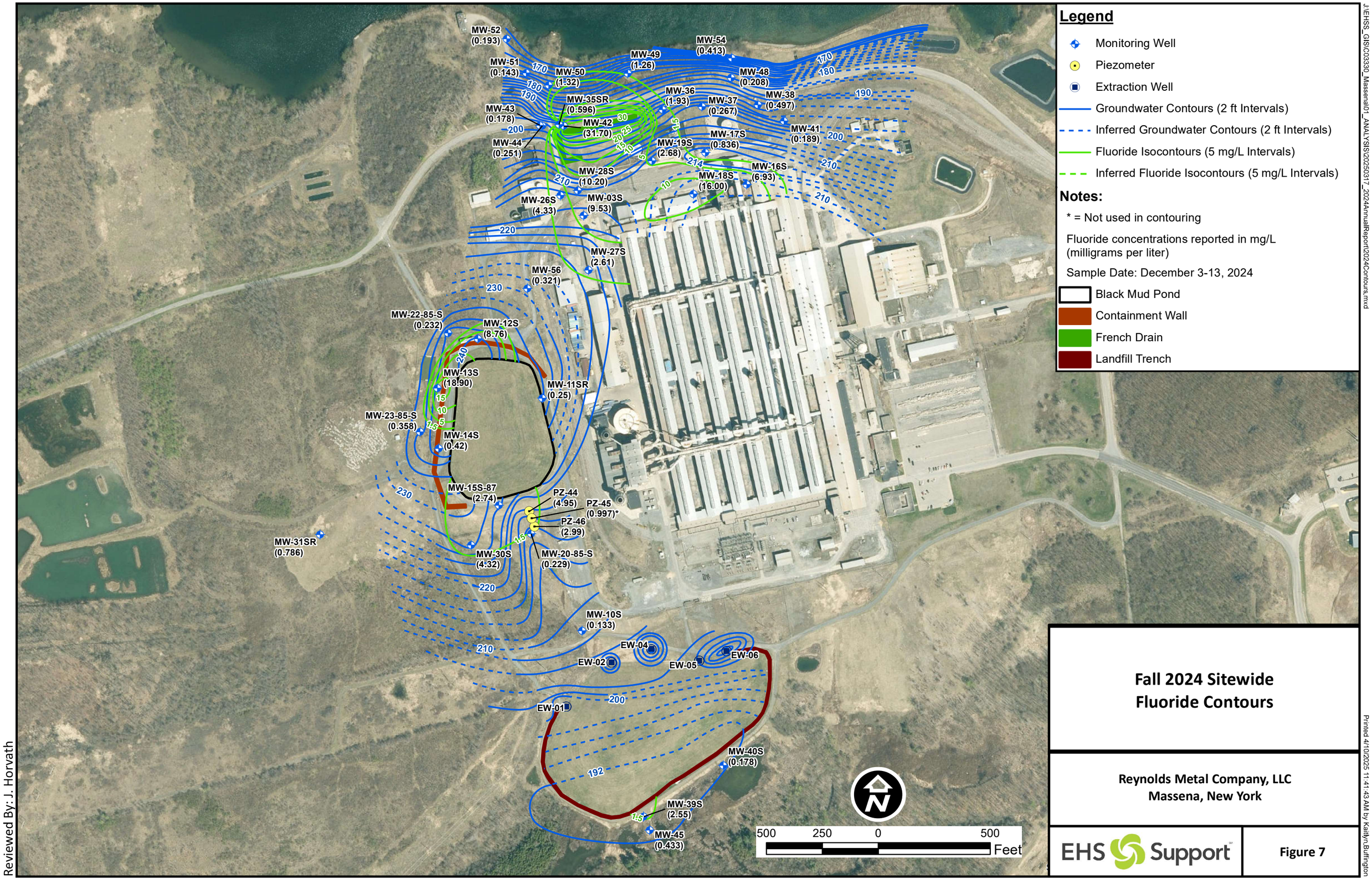
Reynolds Metal Company, LLC
Massena, New York

EHS Support

Figure 6

J:\EHS_GIS\C03330_Massena\01_ANALYSIS\20250317_2024AnnualReport2024Contours.mxd

Printed 4/10/2025 11:41:36 AM by Kaitlyn.Buffington



Legend

- Monitoring Well
- Piezometer
- Extraction Well
- Groundwater Contours (2 ft Intervals)
- Inferred Groundwater Contours (2 ft Intervals)
- Fluoride Isocontours (5 mg/L Intervals)
- Inferred Fluoride Isocontours (5 mg/L Intervals)

Notes:

* = Not used in contouring

Fluoride concentrations reported in mg/L (milligrams per liter)

Sample Date: December 3-13, 2024

- Black Mud Pond
- Containment Wall
- French Drain
- Landfill Trench

Fall 2024 Sitewide Fluoride Contours

Reynolds Metal Company, LLC
Massena, New York

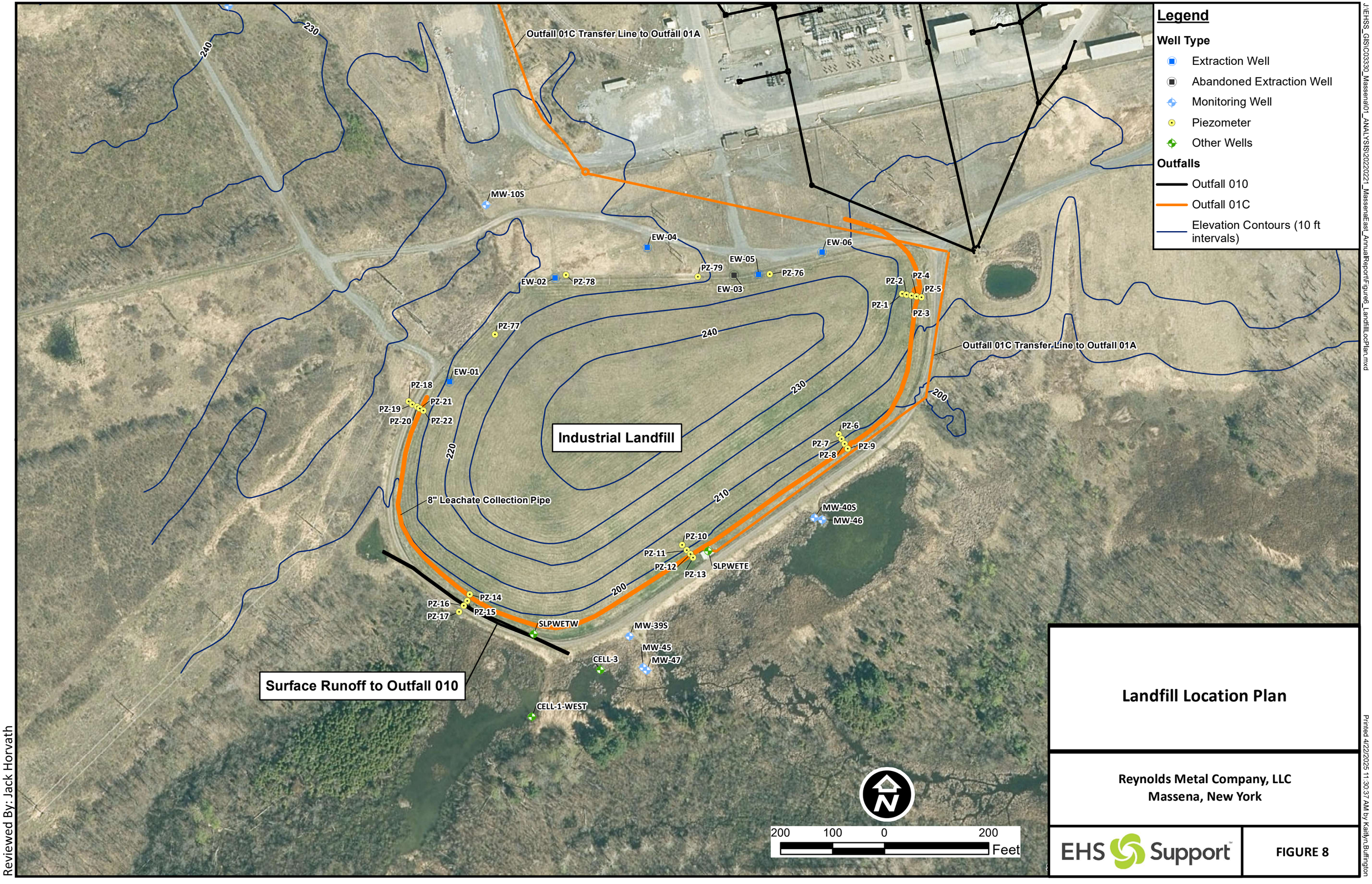
EHS Support

Figure 7

Reviewed By: J. Horvath

J:\EHS_GIS\CO3330_Massena\01_ANALYSIS\20250317_2024AnnualReport2024Contours.mxd

Printed 4/10/2025 11:41:43 AM by Kaitlyn.Buffington



Landfill Location Plan

Reynolds Metal Company, LLC
Massena, New York

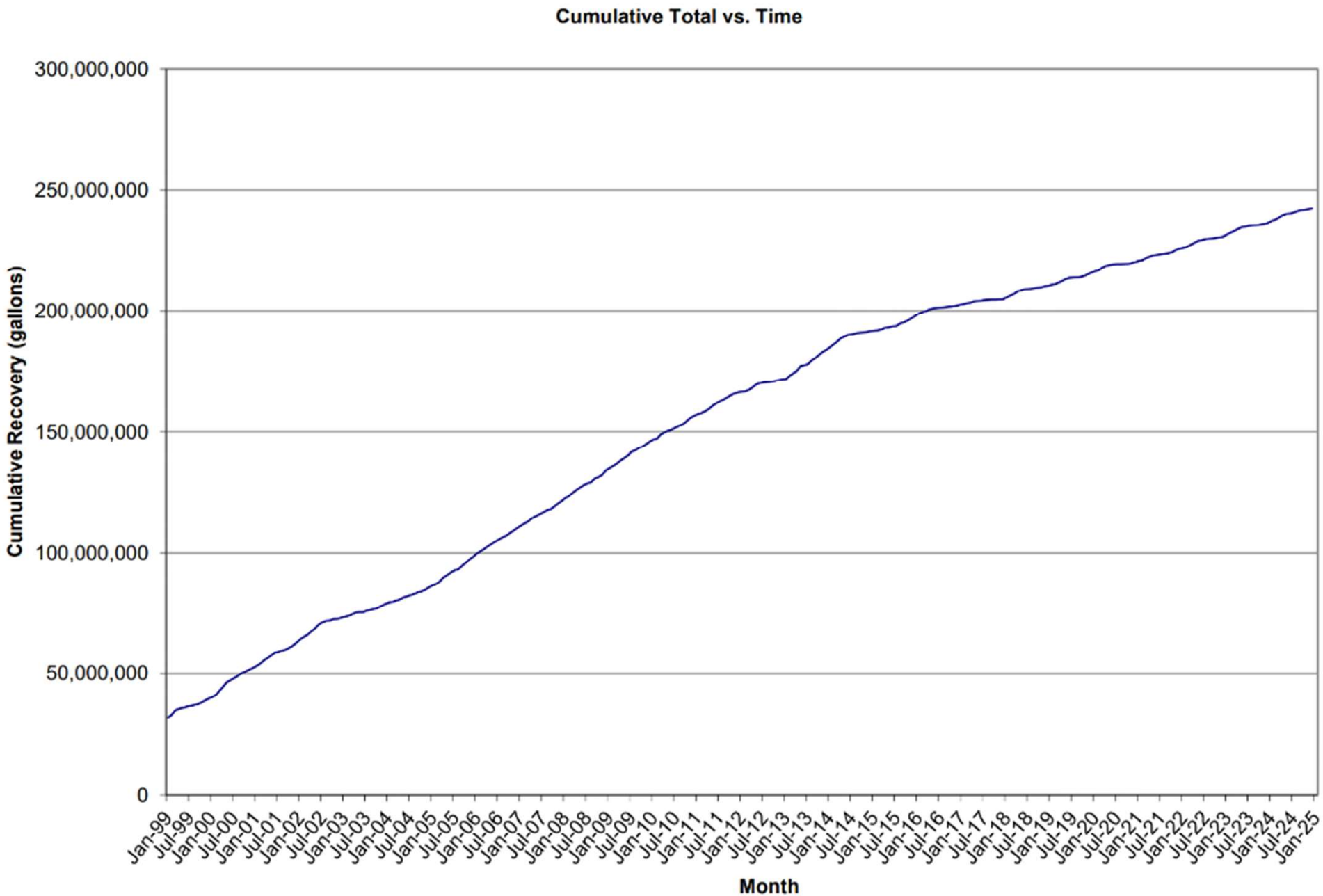
EHS Support

FIGURE 8

Reviewed By: Jack Horvath

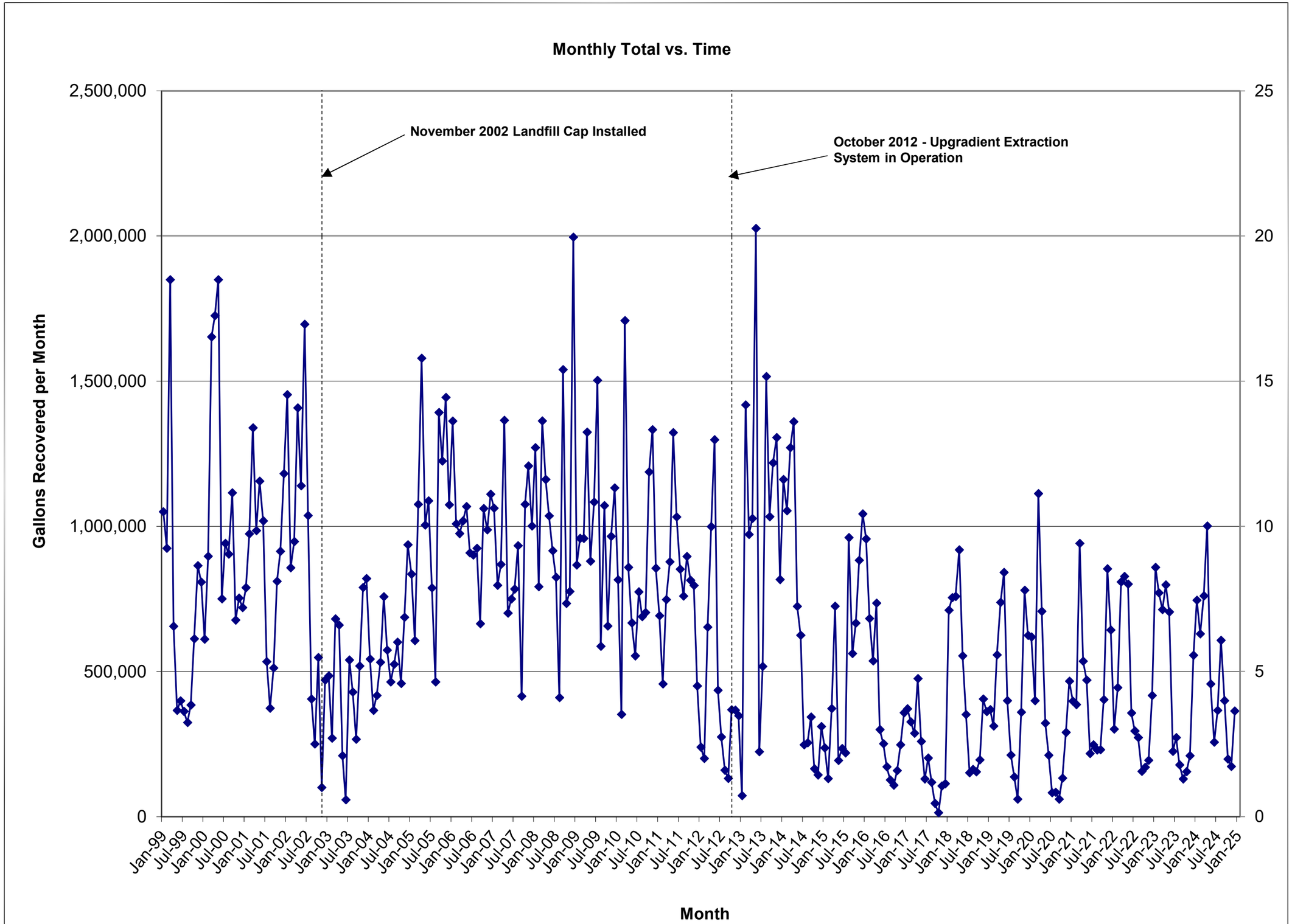
J:\EHS_GIS\C0330_Massena\01_ANALYSIS\20220221_MassenaEast_AnnualReportFigure6_LandfillLocPlan.mxd

Printed 4/22/2025 11:30:37 AM by Kaitlyn.Buffington



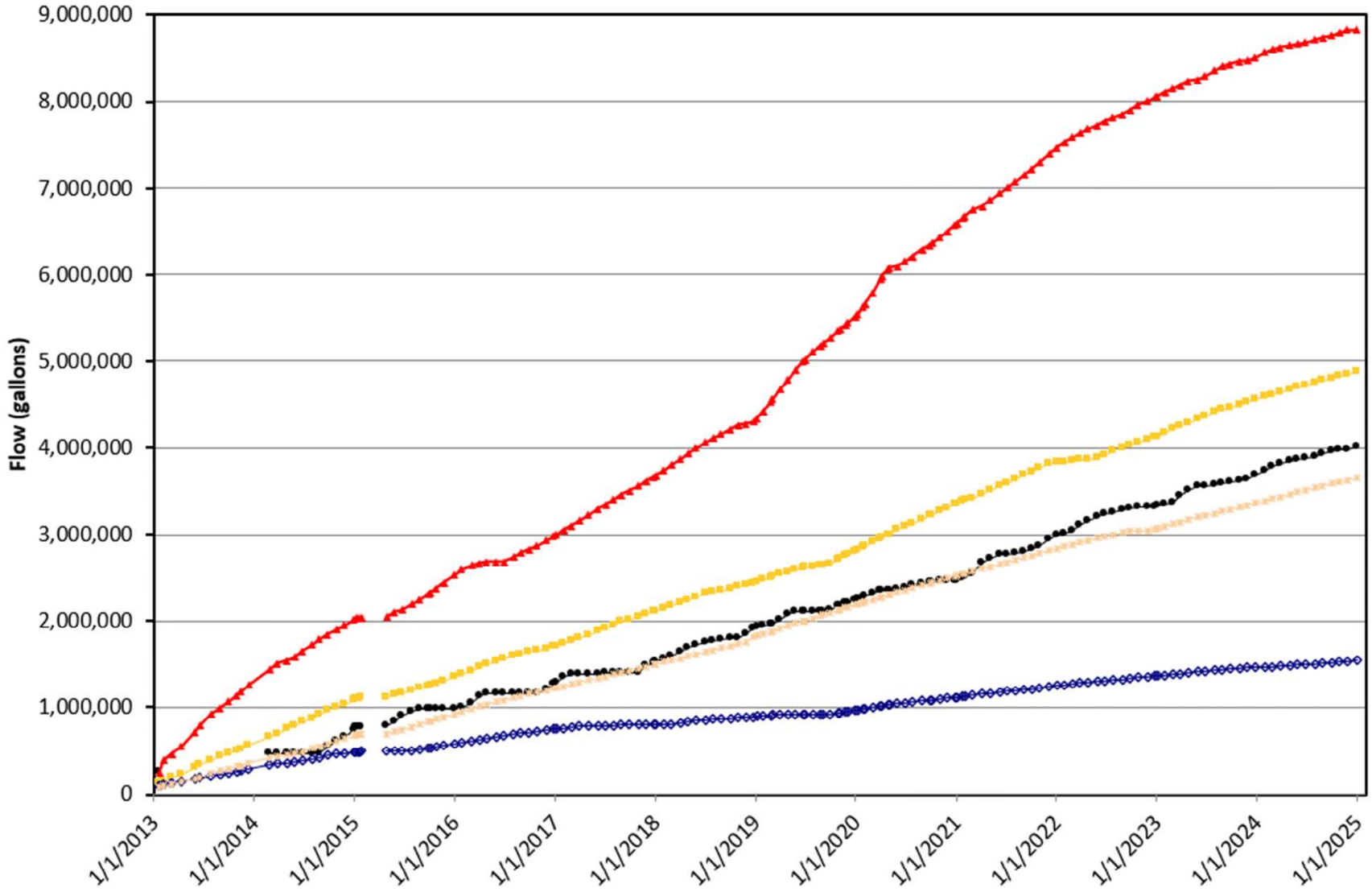
Note:
Cumulative recovery is calculated from time of pumping system startup in October 1995.

EHS Support	Reynolds Metal Company, LLC Massena, New York	Cumulative Landfill Groundwater Removal	Figure 9



EHS Support	Reynolds Metal Company, LLC Massena, New York	Monthly Landfill Groundwater Removal	Figure 10

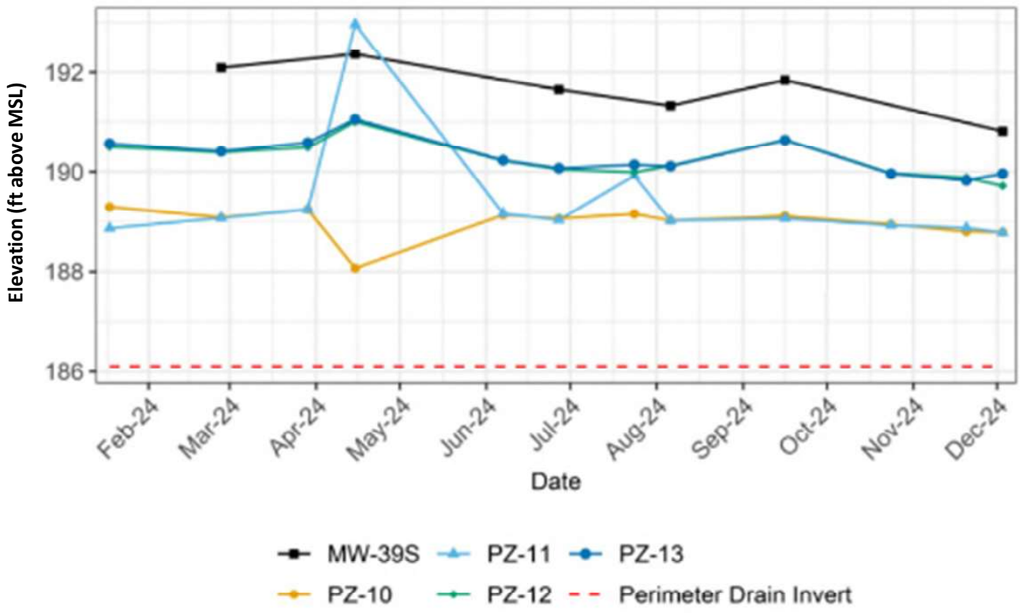
Flowmeter Readings



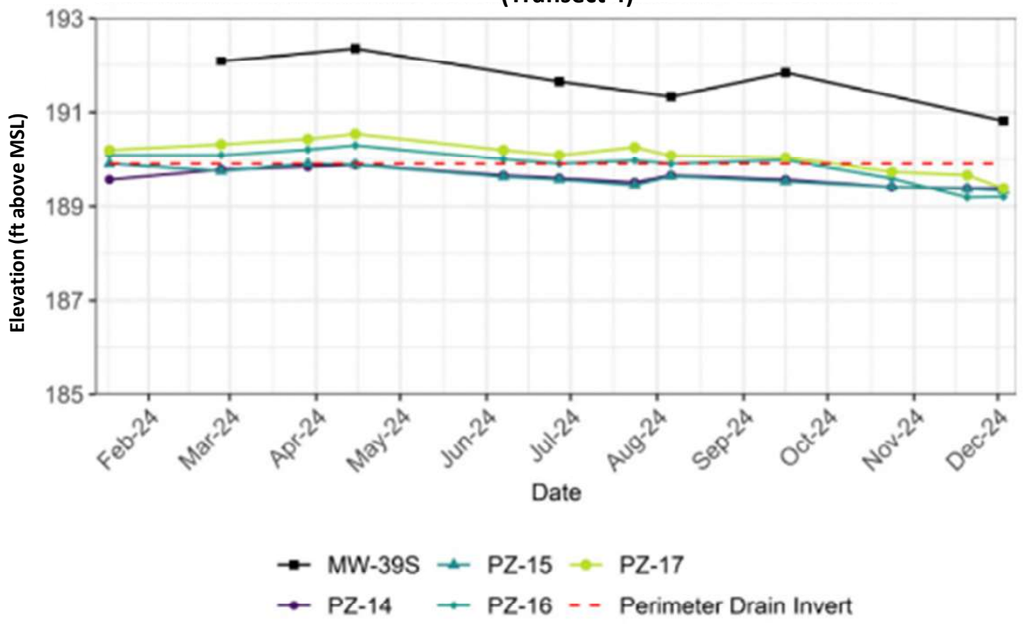
Note: The extraction wells were not operating during February and March 2015 due to frozen conditions.

EHS Support	Historical Flowmeter Readings for Extraction Wells Through 2024	**2024 Annual Groundwater Monitoring Report Massena East Site Massena, New York**	**Figure 11**

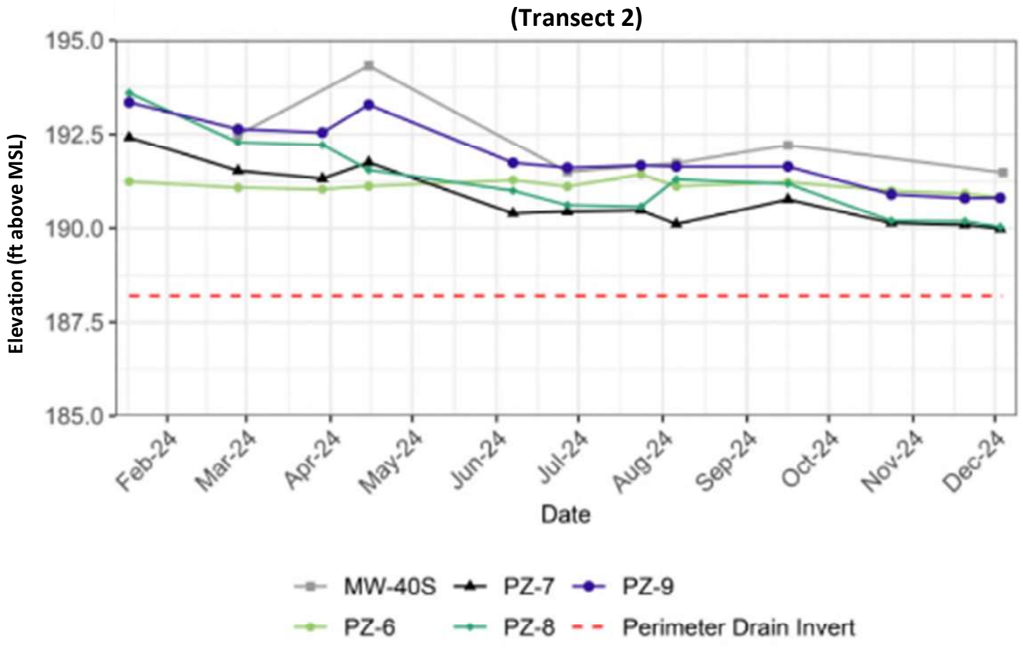
Groundwater Elevations at MW-39S and Piezometer Cluster PZ-10 through PZ-13 (Transect 3)



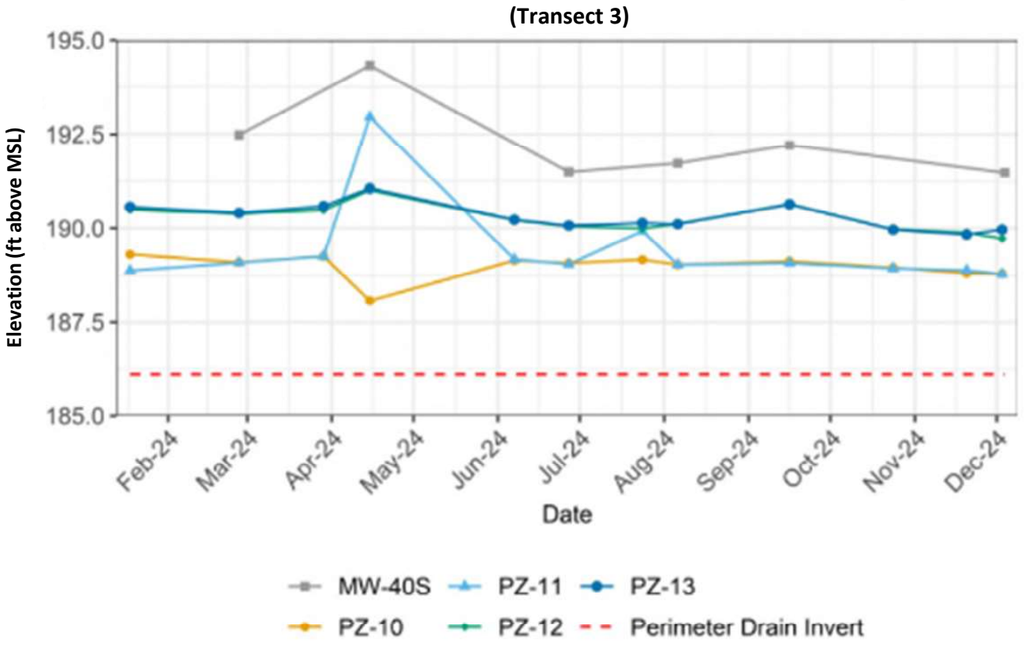
Groundwater Elevations at MW-39S and Piezometer Cluster PZ-14 through PZ-17 (Transect 4)

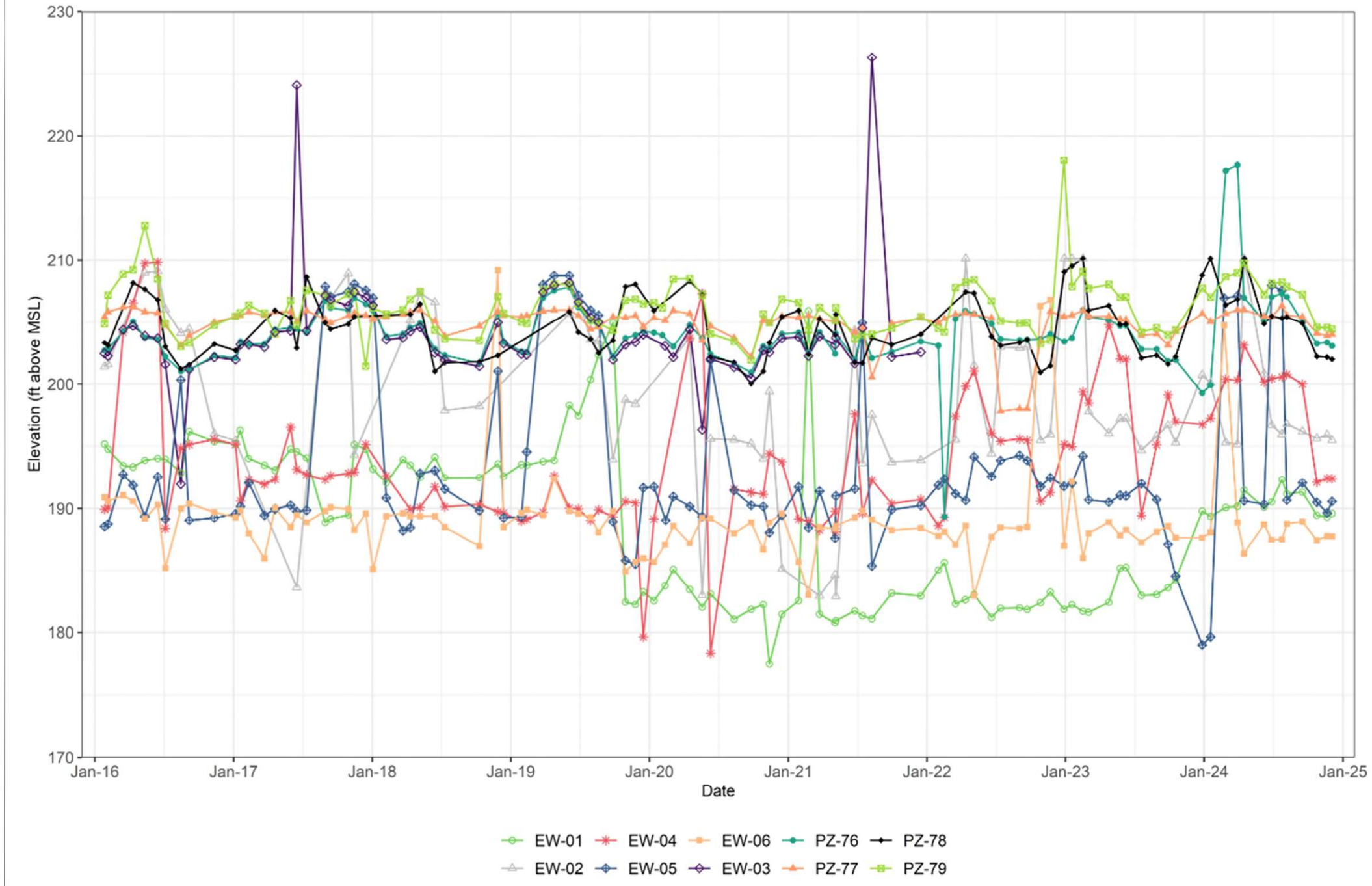


Groundwater Elevations at MW-40S and Piezometer Cluster PZ-6 through PZ-9 (Transect 2)

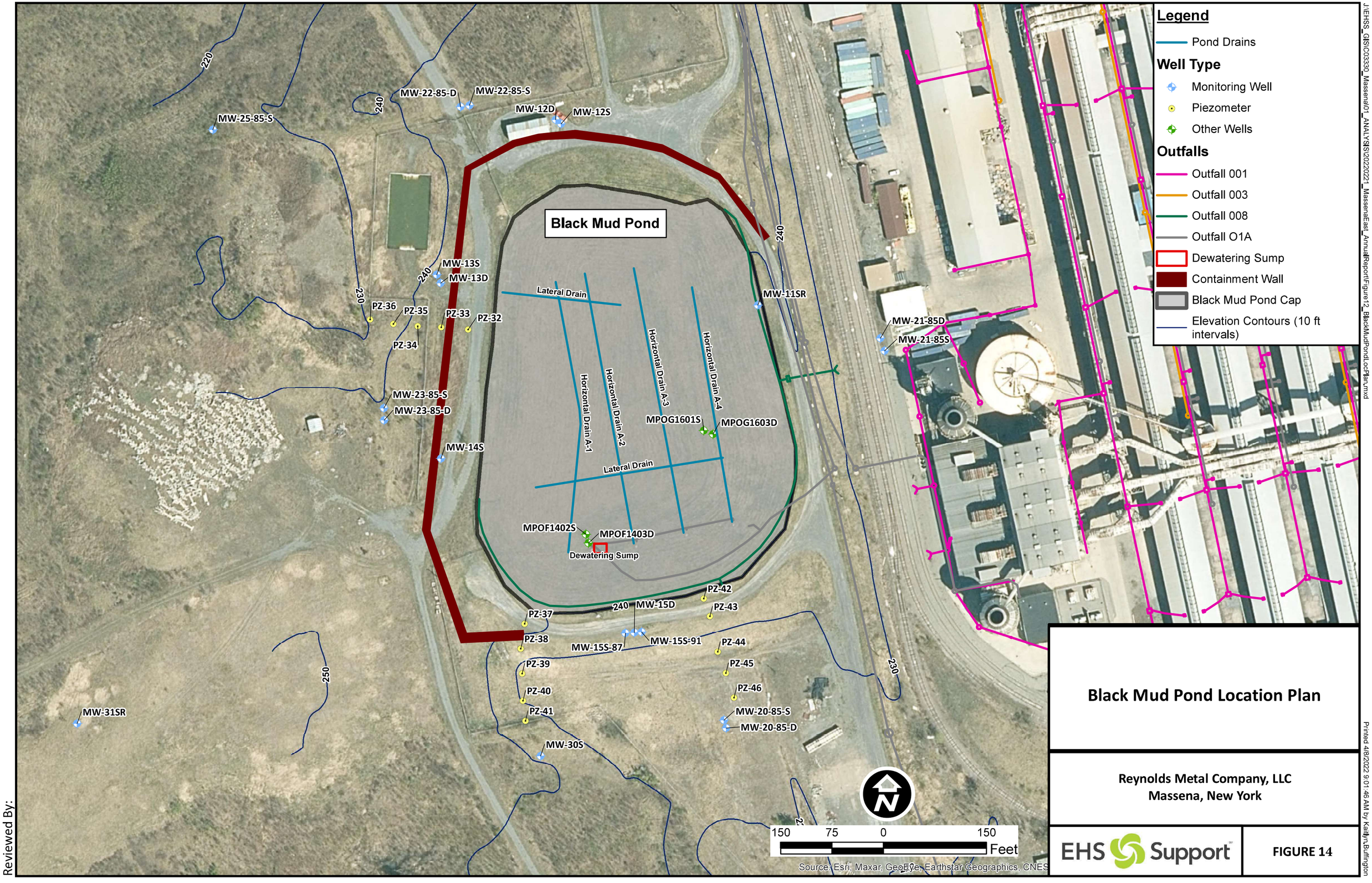


Groundwater Elevations at MW-40S and Piezometer Cluster PZ-10 through PZ-13 (Transect 3)





EHS Support	Reynolds Metal Company, LLC Massena, New York	Groundwater Elevations in Extraction Wells	Figure 13



Legend

- Pond Drains

Well Type

- Monitoring Well
- Piezometer
- Other Wells

Outfalls

- Outfall 001
- Outfall 003
- Outfall 008
- Outfall O1A
- Dewatering Sump
- Containment Wall
- Black Mud Pond Cap
- Elevation Contours (10 ft intervals)

Black Mud Pond Location Plan

Reynolds Metal Company, LLC
Massena, New York

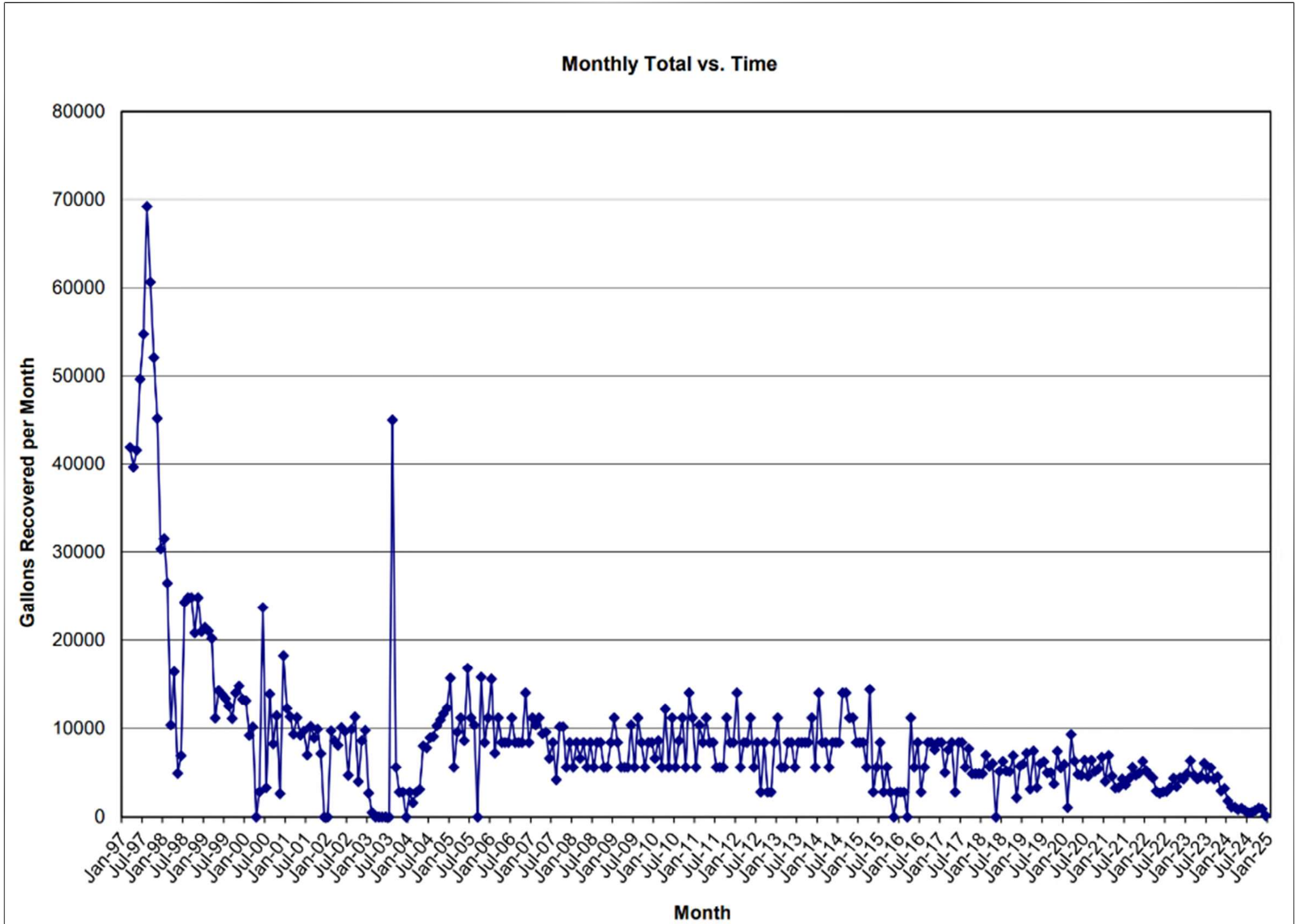
EHS Support

FIGURE 14

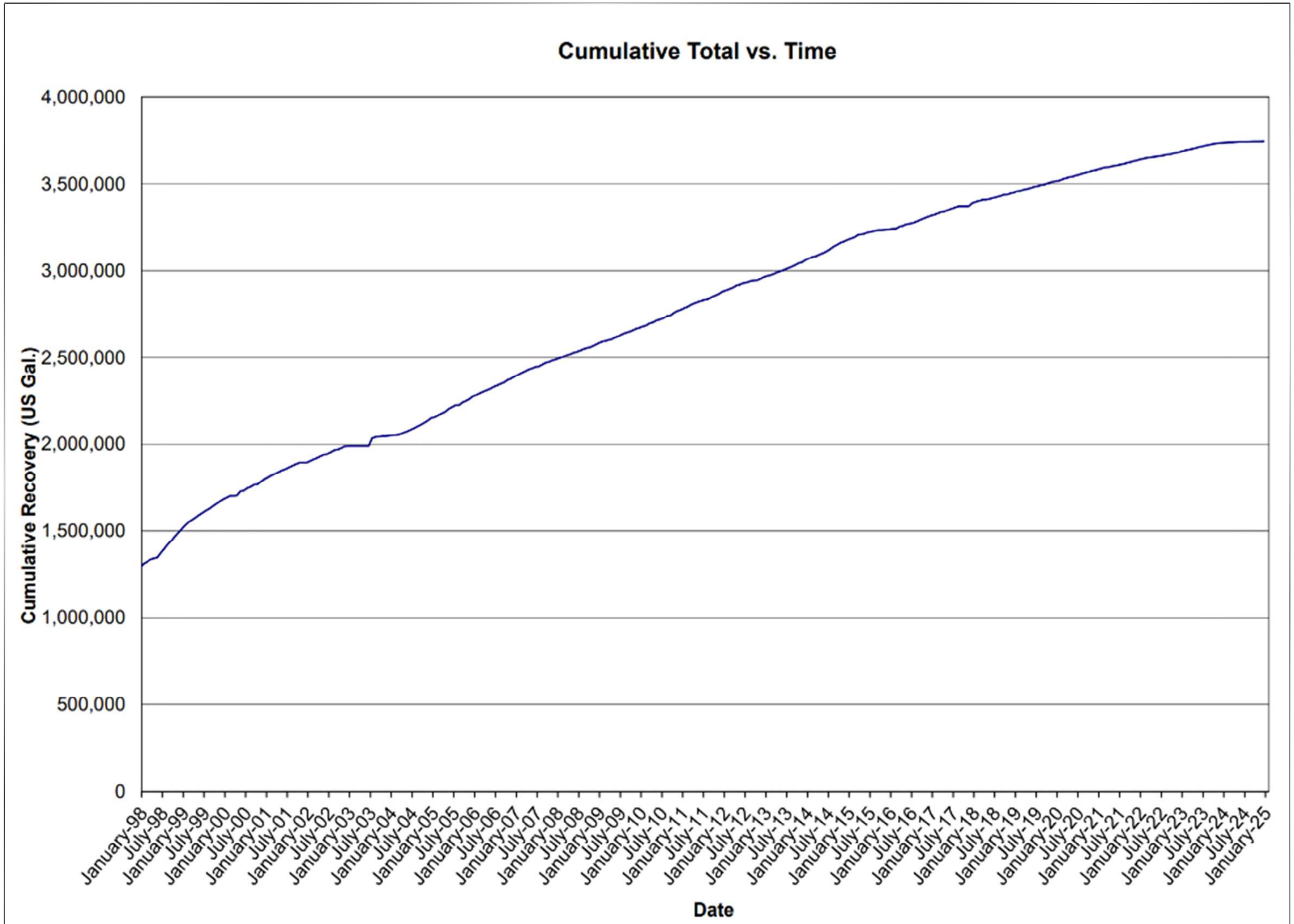
Reviewed By:

J:\EHS_GIS\C03330_Massena\01_ANALYSIS\20220221_MassenaEast_AnnualReportFigure12_BlackMudPondLocPlan.mxd

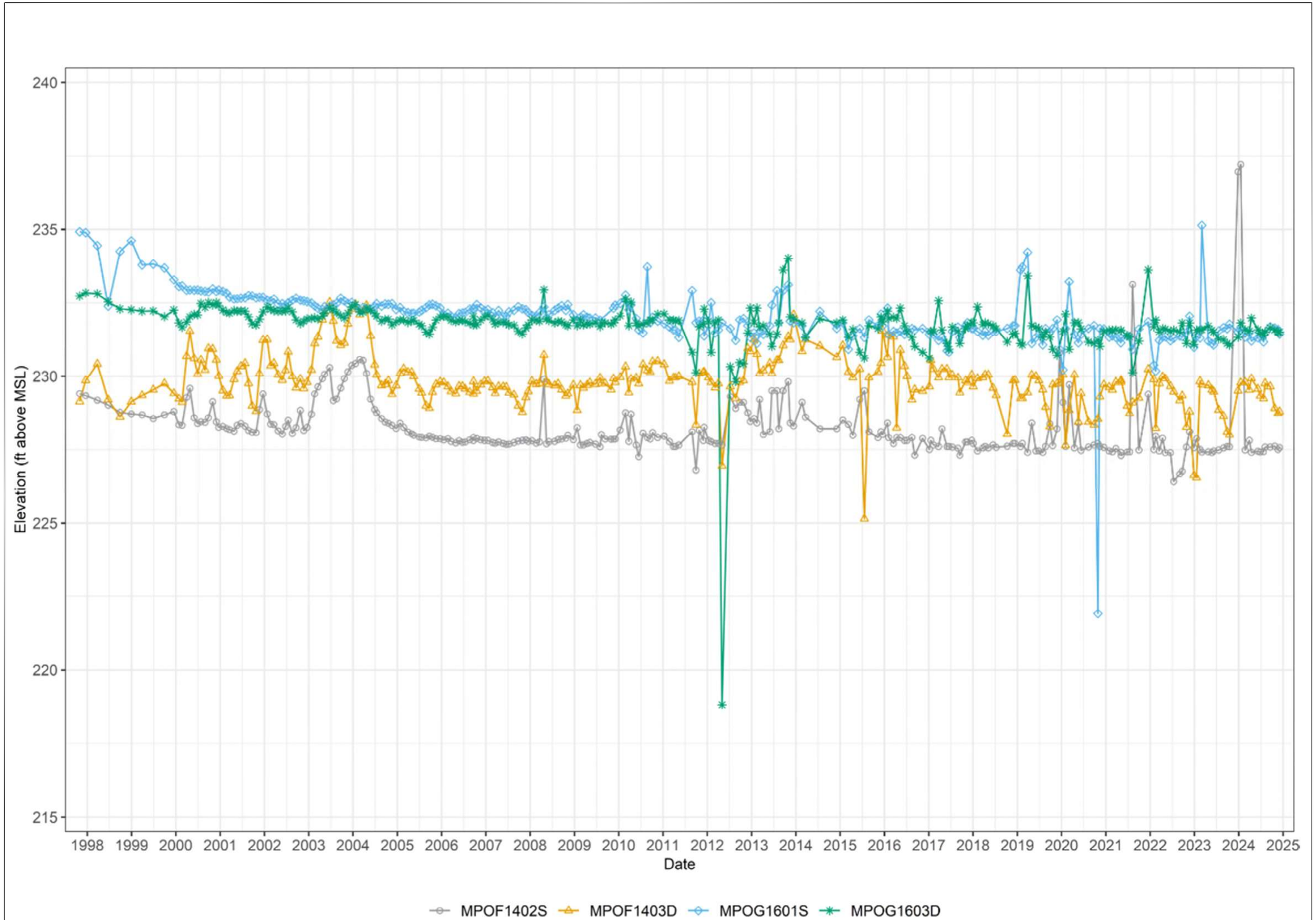
Printed 4/8/2022 9:01:46 AM by Kaitlyn.Buffington



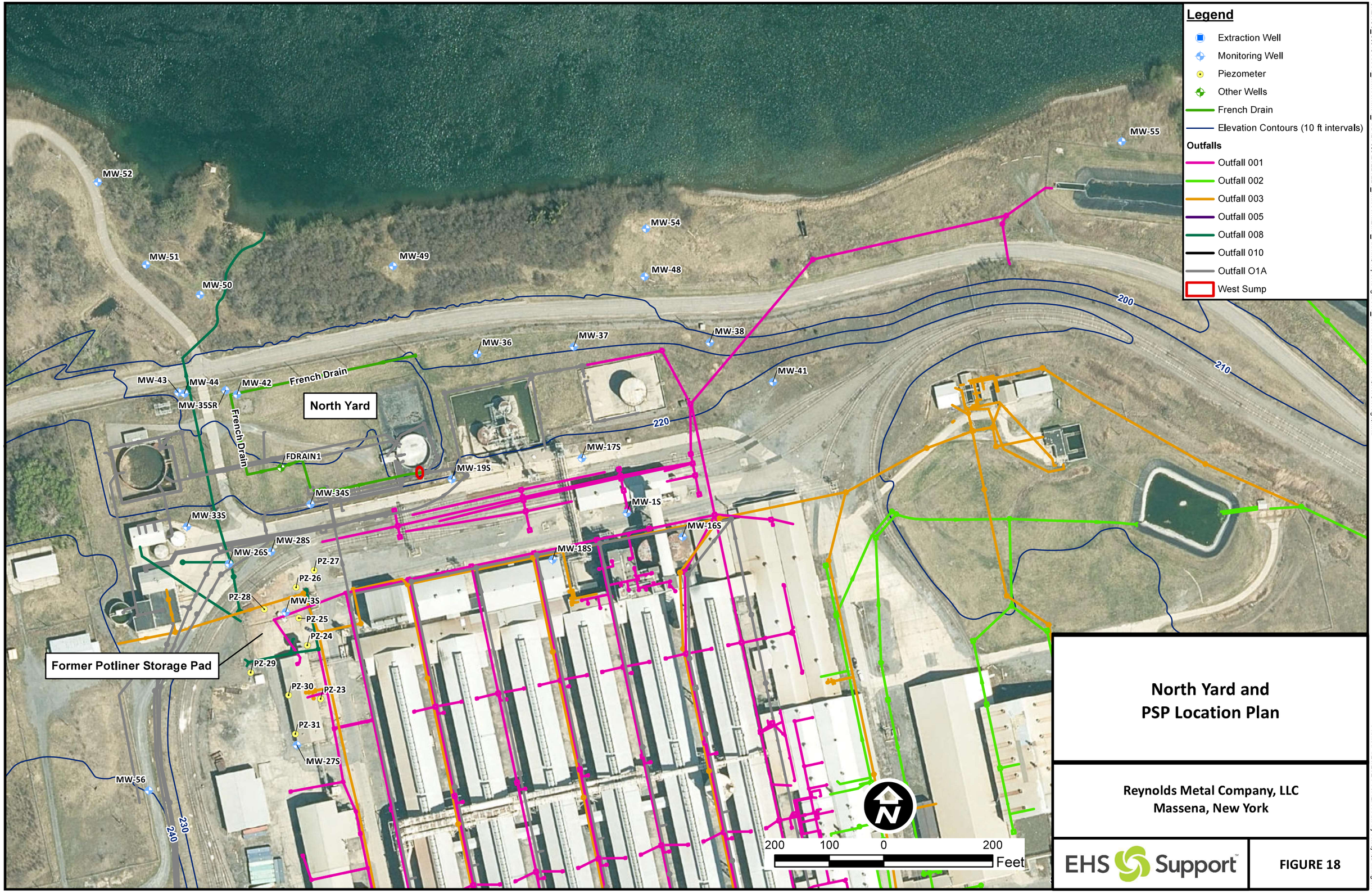
EHS Support	Reynolds Metal Company, LLC Massena, New York	Monthly BMP Groundwater Removal	Figure 15



EHS Support	Reynolds Metal Company, LLC Massena, New York	Cumulative BMP Groundwater Removal	Figure 16



EHS Support	Reynolds Metal Company, LLC Massena, New York	Groundwater Elevations in BMP Piezometers	Figure 17



North Yard and PSP Location Plan

Reynolds Metal Company, LLC
Massena, New York

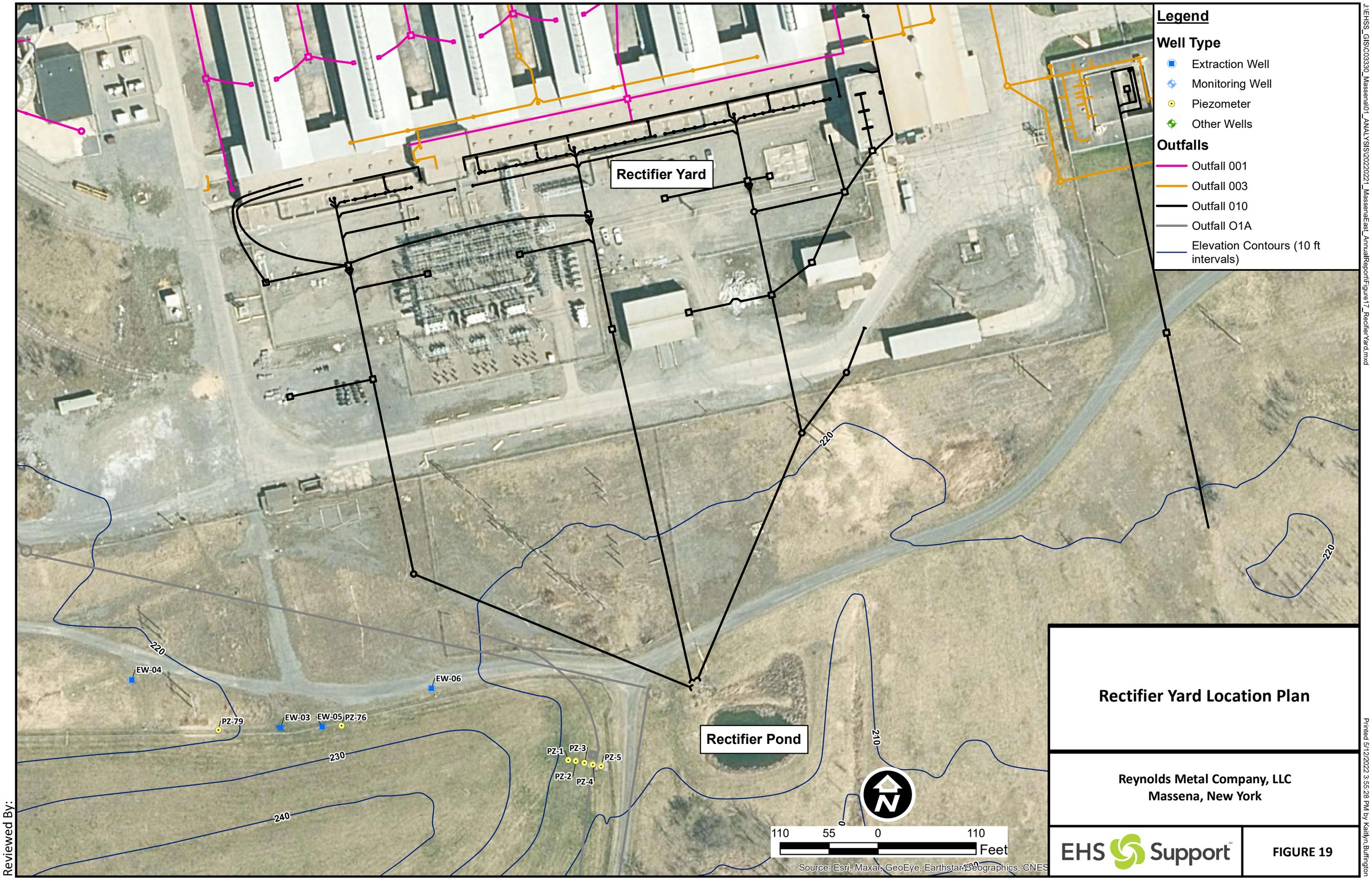
EHS Support

FIGURE 18

Reviewed By:

J:\EHSS_GIS\C00330_Massena\01_ANALYSIS\20220221_MassenaEast_AnnualReportFigure16_NorthYardFormerPotlinerStorage.mxd

Printed 4/25/2024 10:42:11 AM by Kaitlyn.Buffington



Legend

Well Type

- Extraction Well
- Monitoring Well
- Piezometer
- Other Wells

Outfalls

- Outfall 001
- Outfall 003
- Outfall 010
- Outfall O1A
- Elevation Contours (10 ft intervals)

Rectifier Yard Location Plan

Reynolds Metal Company, LLC
Massena, New York

EHS Support

FIGURE 19

Reviewed By:

J:\EHS_GIS\CO3330_Massena\01_ANALYSIS\20220221_MassenaEast_AnnualReportFigure17_RectifierYard.mxd

Printed 5/12/2022 3:55:28 PM by Kaitlyn.Buffington

Appendix A O&M Activities

Appendix A
O&M Schedule
2024 Periodic Review Report for Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Description of Activity	Schedule Requirement	Planned Schedule											
		J	F	M	A	M	J	J	A	S	O	N	D
Surface Water [1]													
Inspect surface water monitoring stations	Annually				X								
Groundwater													
Inspect monitoring wells/piezometers	Annually					X							
Monitor groundwater chemistry	Quarterly[3]			X			X			X			X
Measure water levels in wells/piezometers	Quarterly			X			X			X			X
General Area Inspections													
Inspect BMP cap and area	Spring and Fall				X						X		
Inspect Landfill cap and area	Spring and Fall				X						X		
Inspect North Yard and tank containments	Annually					X							
Inspect North Yard west and east sumps	Quarterly	X			X			X			X		
Inspect PSP and area	Annually					X							
Inspect RY and area	Annually					X							
BMP Groundwater Removal													
Measure groundwater elevations inside BMP	Monthly	X	X	X	X	X	X	X	X	X	X	X	X
Obtain groundwater transfer quantity from BMP	Monthly	X	X	X	X	X	X	X	X	X	X	X	X
Inspect discharge line from BMP sump	Quarterly	X			X			X			X		
Landfill Groundwater & Stormwater Removal													
Measure groundwater elevations around landfill	Monthly	X	X	X	X	X	X	X	X	X	X	X	X
Record quantity of groundwater and stormwater transferred from Landfill [2]	Weekly - Reported Monthly	X	X	X	X	X	X	X	X	X	X	X	X
Inspect LCRS and groundwater transfer line	Quarterly	X			X			X			X		

Notes:

[1] SPDES surface water monitoring is performed and reported separately.

[2] Transfer will consist only of landfill groundwater (i.e., no stormwater).

[3] Groundwater sampled quarterly at Landfill; all other areas sampled semiannually

Appendix B Field Sampling Forms

CDM Smith
listen. think. deliver.

Project: Reynolds March Quarterly Groundwater Sampling (Page of)

Date: 3-6-24

Well ID: MW-10S

Sampler(s): BC

Analyte Collected		Time/Date	Note
Free Cyanide	X	3-7-24 0715	
Fluoride	X		
Sulfate	X		
PCBs	X		

Pre-purge Water Elevation: 6.45 (BTIC)

Intake Elevation: 17.5 (BTIC)

Screened Interval: 12.5-22.5 (BTIC)

TIC Elevation: 216.65 (FT)

Depth of Well: ~~83.64~~ 22.5 (FT)

Final Water Elevation: 14.55 (BTIC)

Pump used (Circle one)

Waterra (Peristaltic) Grundfos Bailer

Temp: clouds 41 (°F)

Wind: 10-15 (mph) Direction: NE

YSI #: 4

Turbidimeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	DO (mg/L)	pH (SU)	Temperature (ºC)	Specific Conductivity (ms/cm)	ORP (mV)	Turbidity (NTU)	Note
Stabilization guidance		< 0.3 foot	± 3 %	± 10 %	± 10 %	± 3 %	± 3 %	±10 mV	± 10 %	
1024	9.31	2.89	330	45.2	7.33	6.8	0.506	173.5	3.50	
1029	10.85	1.31	325	42.2	7.31	6.7	0.503	172.8	2.39	
1034	11.93	1.08	325	39.7	7.32	6.8	0.504	172.2	1.62	
1039	13.12	1.19	300	40.6	7.31	6.7	0.500	171.7	0.82	
1044										
1049										
3-7-24										
0715	6.08	–	300	55.6	7.45	6.4	0.442	171.3	3.64	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 7 gal

Comments

Inside screen at 1039 pump to bottom of screen at 450 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds March Quarterly Groundwater Sampling (Page of)

Date: 3-7-24

Well ID: SLPWETW

Sampler(s): BC

Analyte Collected	
Free Cyanide	X
Fluoride	X
Sulfate	X
PCBs	X

Time/Date: 3-7-24 0812

Note:

Pre-purge Water Elevation: (BTIC)

Intake Elevation: NA (BTIC)

Final Water Elevation: NA (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Pump used (Circle one)

Waterra Peristaltic Grundfos Bailer

Temp: clouds (°F) 37

Wind: 10-15 (mph) Direction: NE

YSI #: 4

Turbidimeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	DO (mg/L)	pH (SU)	Temperature (ºC)	Specific Conductivity (ms/cm)	ORP (mV)	Turbidity (NTU)	Note
Stabilization guidance		< 0.3 foot	± 3 %	± 10 %	± 10 %	± 3 %	± 3 %	±10 mV	± 10 %	
0812	—	—	—	23.7	7.08	1.7	0.188	-25.8	4.16	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments: Grab sample

CDM Smith
listen. think. deliver.

Project: Reynolds March Quarterly Groundwater Sampling (Page of)

Date: 3.7.24

Well ID: MW-39S

Sampler(s): BL

Analyte Collected		Time/Date	Note
Free Cyanide	X	3-7-24 1020	
Fluoride	X		
Sulfate	X		
PCBs	X		

Pre-purge Water Elevation: 4.28 (BTIC)

Intake Elevation: 15.5 (BTIC)

Screened Interval: 10.95-20.95 (BTIC)

TIC Elevation: 195.87 (FT)

Depth of Well: 20.93 (FT)

Final Water Elevation: 8.90 (BTIC)

Pump used (Circle one)

Waterra Peristaltic Grundfos Bailer

Temp: cloudy 37 (°F)

Wind: 10-15 (mph) Direction: NE

YSI #: 4

Turbidimeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	DO (mg/L)	pH (SU)	Temperature (ºC)	Specific Conductivity (ms/cm)	ORP (mV)	Turbidity (NTU)	Note
Stabilization guidance		< 0.3 foot	± 3 %	± 10 %	± 10 %	± 3 %	± 3 %	±10 mV	± 10 %	
0845	7.08	2.8	240	23.4	7.30	5.6	0.626	137.9	5.2	
0850	7.58	0.5	225	21.2	7.28	5.9	0.641	113.2	5.1	
0855	8.05	0.47	200	21.3	7.23	6.1	0.649	74.2	5.6	
0900	8.29	.24	200	21.5	7.22	6.2	0.653	60.0	4.5	
0905	8.47	.18	200	20.2	7.20	6.3	0.659	47.5	3.8	
0910	8.62	.15	200	18.5	7.17	6.3	0.663	37.9	4.4	
0915	8.70	.08	200	17.9	7.15	6.4	0.664	34.1	3.7	
0920	8.80	.10	200	17.5	7.13	6.3	0.663	29.3	3.2	
0925	8.84	.04	200	14.5	7.12	6.3	0.661	24.2	3.2	
0930	8.89	.05	200	16.1	7.10	6.5	0.665	22.0	2.9	
0935	8.91	.02	200	15.4	7.09	6.9	0.669	19.1	2.3	
0940	8.91	0	200	15.7	7.08	7.2	0.681	16.9	2.4	
0945	8.90	0	200	15.5	7.07	7.1	0.684	15.1	2.1	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 3.75 gal				

Comments

500 ml min at start

30

CDM Smith
listen. think. deliver.

Project: Reynolds March Quarterly Groundwater Sampling (Page of)

Date: 3-7-24

Well ID: MW-45

Sampler(s): BL

Analyte Collected	
Free Cyanide	x
Fluoride	x
Sulfate	x
PCBs	x

Time/Date: 3-7-24 1130

Note:

Pre-purge Water Elevation: 4.25 (BTIC)

Intake Elevation: 12.0 (BTIC)

Screened Interval: 7-17 (BTIC)

TIC Elevation: 195.7 (GL) (FT)

Depth of Well: 17.73 (FT)

Final Water Elevation: 6.37 (BTIC)

Pump used (Circle one)

Waterra Peristaltic Grundfos Bailer

Temp: cloudy 43 (°F)

Wind: 10-15 (mph) Direction: NE

YSI #: 4

Turbidimeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	DO (mg/L)	pH (SU)	Temperature (ºC)	Specific Conductivity (ms/cm)	ORP (mV)	Turbidity (NTU)	Note
Stabilization guidance		< 0.3 foot	± 3 %	± 10 %	± 10 %	± 3 %	± 3 %	±10 mV	± 10 %	
1040	6.13	1.88	150	22.4	7.18	5.6	1.074	94.7	3.38	
1045	6.41	0.28	150	23.9	7.17	6.1	1.086	104.4	3.09	
1050	6.44	.03	150	23.4	7.09	6.6	1.118	109.6	2.5	
1055	6.44	0	150	21.1	7.04	6.9	1.128	111.7	1.2	
1100	6.39	0	140	19.9	7.01	7.4	1.165	111.5	2.0	
1105	6.35	0.135	150	19.5	6.97	7.4	1.175	109.2	1.2	
1110	6.30	0	140	19.2	6.97	7.5	1.180	106.4	0.96	
1115	6.29	0	150	20.9	6.96	7.2	1.180	102.2	1.0	
1120	6.39	.10	140	21.1	6.97	7.3	1.177	95.0	1.2	
1125	6.35	0	150	21.7	6.95	7.8	1.196	90.8	1.1	
1130	6.33	0	150	21.8	6.94	8.0	1.206	87.4	1.2	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2.5

Comments

300 mL/min at start

CDM Smith
listen. think. deliver.

Project: Reynolds March Quarterly Groundwater Sampling (Page of)

Date:	Analyte Collected		Time/Date	Note
Well ID: SLPWETE	Free Cyanide	X	3-7-24 1220	
	Fluoride	X		
Sampler(s):	Sulfate	X		
	PCBs	X		

Pre-purge Water Elevation: (BTIC)
Intake Elevation: (BTIC)
Screened Interval: --- (BTIC)
TIC Elevation: --- (FT)
Depth of Well: --- (FT)
Final Water Elevation: (BTIC)
Pump used (Circle one)
Waterra Peristaltic Grundfos Bailer
Temp: (°F)
Wind: (mph) Direction:
YSI #:
Turbidimeter #:

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	DO (mg/L)	pH (SU)	Temperature (ºC)	Specific Conductivity (ms/cm)	ORP (mV)	Turbidity (NTU)	Note
Stabilization guidance		< 0.3 foot	± 3 %	± 10 %	± 10 %	± 3 %	± 3 %	±10 mV	± 10 %	
1220	—	—	—	76.4	7.85	10.1	0.3335	74.5	0.54	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged:

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds March Quarterly Groundwater Sampling (Page of)

Date: 6-4-24

Well ID: MW-40S

Sampler(s): BC/JC

Analyte Collected		Time/Date	Note
Free Cyanide	✓	6/4/24 09:40	
Fluoride	✓		
Sulfate	✓		
PCBs	✓		

Pre-purge Water Elevation: 2.58 (BTIC)

Intake Elevation: 15 (BTIC)

Final Water Elevation: (BTIC)

Temp: 68 (°F)

Screened Interval: 9.94-19.94 (BTIC)

TIC Elevation: 193.75 (FT)

Depth of Well: 19.94 (FT)

Pump used (Circle one)

Waterra (Peristaltic) Grundfos Bailer

Wind: - (mph) Direction: -

YSI #: 4

Turbidimeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	DO (mg/L)	pH (SU)	Temperature (ºC)	Specific Conductivity (ms/cm)	ORP (mV)	Turbidity (NTU)	Note
Stabilization guidance		< 0.3 foot	± 3 %	± 10 %	± 10 %	± 3 %	± 3 %	±10 mV	± 10 %	
0850	4.89	~~4.89~~	425	31.3	7.40	12.6	1.148	-45.4	6.03	
0855	6.45	-1.56	350	23.3	7.33	12.5	1.146	-13.8	4.62	
0900	7.64	-1.19	~~350~~ 300	18.4	7.32	12.9	1.146	-0.4	5.14	
0905	8.62	-0.98	300	15.6	7.33	13.1	1.148	6.8	0.52	
0910	9.20	-0.58	250	16.4	7.31	13.7	1.146	18.9	2.69	
0915	9.55	-0.35	250	17.1	7.29	13.7	1.160	30.7	3.99	
0920	9.87	-0.32	250	18.4	7.25	13.7	1.184	39.7	2.93	
0925	10.08	-0.21	250	19.1	7.18	13.6	1.250	43.2	4.13	
0930	10.30	-0.22	250	19.8	7.14	13.4	1.267	40.3	4.69	Stabilized

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 3.25 gallons

Comments

1 COCV EDP

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Road, Suite 1
Massena, NY 13662
Phone: 315-296-9003
Fax:
Email: glosengerjc@cdmsmith.com

Project Information

Project Name: Reynolds Groundwater Sampling March 2024
Project Location: NY
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other: NA

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCBs 8082	F-300	SO4-300	Total Bottle
	MW-10S-0324	3-7-24	0715	water	BC	✓	✓	✓	
	MW-10S-0324 MS	3-7-24	0715	water	BC	✓	✓	✓	
	MW-10S-0324 MSD	3-7-24	0715	water	BC	✓	✓	✓	
	SLPWETW-0324	3-7-24	0812	water	BC	✓	✓	✓	
	MW-39S-0324	3-7-24	1020	water	BC	✓	✓	✓	
	MW-1200-0324 BD	3-7-24	1025	water	BC	✓	✓	✓	
	MW-45-0324	3-7-24	1130	water	BC	✓	✓	✓	
	SLPWETE-0324	3-7-24	1220	water	BC	✓	✓	✓	
	MW-1201-0324 FB	3-7-24	1200	water	BC	✓	✓	✓	
Container Type						A	P	P	
Preservative						A	A	A	

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Jasiel Cox	3-7-24 1430		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

Reynolds 3-6-24
YSI #4 Turbidity meter #4

Ph - 4 - 4.15 - 4.00
7 - 7.04 - 7.01
10 - 10.05 - 10.13

ORP - 220 mV - 225.5 - 220

Cond - 1413 - 1396 - 1.413

DO - 97.4 - 100

Turbidity - <0.10 - pass
20 - pass
100 - pass
800 - pass

Basil Cat

Reynolds 3-7-24
YSI #4 Turbidity meter #4

Ph - 4 - 3.85 - 4.00
7 - 6.97 - 7.04
10 - 9.97 - 10.02

ORP - 220 mV - 216.6 - 220.0

Cond. - 1.413 - 1.411 - 1.413

DO % - 97.1 - 100

Turbidity - < .10 - pass
20 - pass
100 - pass
800 - pass

Basil Cat

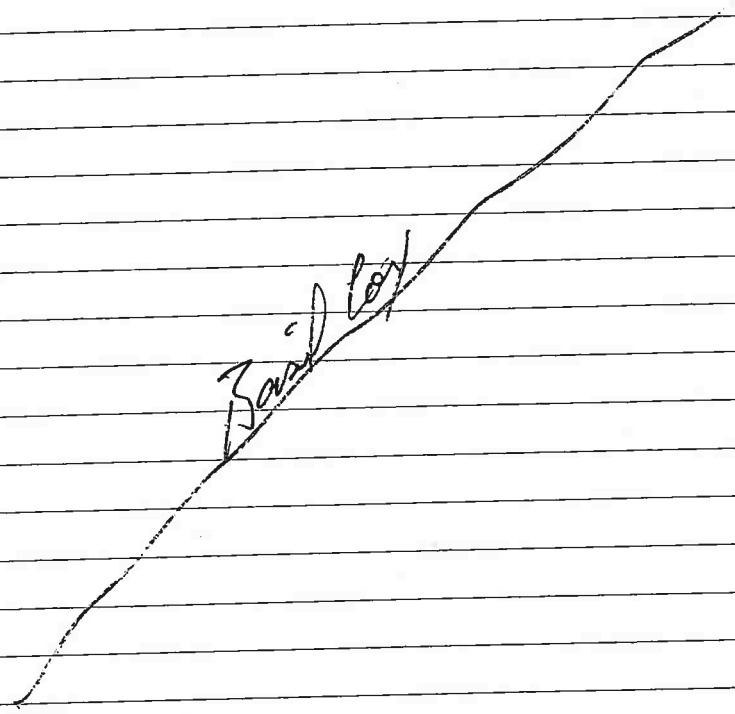
Rite in the Rain

Reynolds 3-7-24

samples collected - Fl, SO4, PCB, Free CN

MW-325 - MW-1200-0324 SD

No sample at MW-40 - water



Rite in the Rain

Glosenger, Joshua C.

From: Posadas-Milla, Ever D.
Sent: Wednesday, May 29, 2024 2:54 PM
To: Candace Fox; James Conley; NYServiceCenter@pacelabs.com
Cc: Mibroda, Jason; Kingsley, Ryan; Rodrigue, Paul; Cox, Basil; Rielly, Alison; Glosenger, Joshua C.; Kelly Hale
Subject: Reynolds Sampling June 2024

Good afternoon,

CDM Smith is scheduled to collect groundwater samples at the Reynolds Metals facility during the month of June 2024. All samples will be shipped to Pace Analytical in Westborough, MA for analysis. *The billing number is 116497.*

The following bottles and labels will be needed to perform the work:

Location	Fluoride	Sulfate	PCBs
MW-03S-0624	X	X	X
MW-10S-0624	X	X	X
MW-10S-0624-MS	X	X	X
MW-10S-0624-MSD	X	X	X
MW-11SR-0624	X	X	X
MW-12S-0624	X	X	X
MW-12S-0624-MS	X	X	X
MW-12S-0624-MSD	X	X	X
MW-13S-0624	X	X	X
MW-14S-0624	X	X	X
MW-15S-87-0624	X	X	X
MW-16S-0624	X	X	X
MW-17S-0624	X	X	X
MW-18S-0624	X	X	X
MW-19S-0624	X	X	X
MW-20-85S-0624	X	X	X
MW-22-85S-0624	X	X	X
MW-23-85S-0624	X	X	X
MW-26S-0624	X	X	X
MW-27S-0624	X	X	X
MW-28S-0624	X	X	X
MW-30S-0624	X	X	X
MW-31SR-0624	X	X	X
MW-35SR-0624	X	X	X
MW-36-0624	X	X	X
MW-36-0624-MS	X	X	X
MW-36-0624-MSD	X	X	X

MW-33S FCN -

MW-37-0624	X	X	X
MW-38-0624	X	X	X
MW-39S-0624	X	X	X
MW-40S-0624	X	X	X
MW-41-0624	X	X	X
MW-42-0624	X	X	X
MW-43-0624	X	X	X
MW-44-0624	X	X	X
MW-45-0624	X	X	X
MW-48-0624	X	X	X
MW-49-0624	X	X	X
MW-50-0624	X	X	X
MW-51-0624	X	X	X
MW-52-0624	X	X	X
MW-54-0624	X	X	X
MW-55-0624			X
MW-56-0624	X	X	
PZ-44-0624	X	X	X
PZ-45-0624	X	X	X
PZ-46-0624	X	X	X
SLPWETE-0624	X	X	X
SLPWETW-0624	X	X	X
FDRAIN-0624	X	X	
Sub total	**49**	**49**	**48**
QC/QA Labels			
MW-1205-0624BD	X	X	X
MW-1206-0624BD	X	X	X
MW-1207-0624FBW	X	X	X
MW-1208-0624FBW	X	X	X
MW-1209-0624FBW	X	X	X
MW-1210-0624FBW	X	X	X
MW-1211-0624FBW	X	X	X
MW-1212-0624FBW	X	X	X
MW-1213-0624FBW	X	X	X
MW-1214-0624FBW	X	X	X
MW-1215-0624FBW	X	X	X
MW-1216-0624FBW	X	X	X
MW-1217-0624FBW	X	X	X
MW-1218-0624FBW	X	X	X
Sub total	**14**	**14**	**14**

Please let me know if you have any questions or concerns.

Have a great rest of your day!

Glosenger, Joshua C.

From: Posadas-Milla, Ever D.
Sent: Wednesday, May 29, 2024 3:04 PM
To: Andy.Johnson@et.eurofinsus.com; Brian.O'Donnell@et.eurofinsus.com; mike.movinski@eurofinset.com
Cc: Mibroda, Jason; Kingsley, Ryan; Rodrigue, Paul; Rielly, Alison; Glosenger, Joshua C.; Cox, Basil; Kelly Hale
Subject: Reynolds Sampling June 2024

Good afternoon,

CDM Smith is scheduled to collect groundwater samples at the Reynolds facility during the month of June 2024. The samples listed below will be shipped to Eurofins Pittsburgh for analysis. *The billing number is* ***116493***.
Bottle and labels will be needed based on the table below:

Location	Parameter
	Free Cyanide
MW-03S-0624	X
MW-10S-0624	X
MW-10S-0624-MS	X
MW-10S-0624-MSD	X
MW-11SR-0624	X
MW-12S-0624	X
MW-12S-0624-MS	X
MW-12S-0624-MSD	X
MW-13S-0624	X
MW-14S-0624	X
MW-15S-87-0624	X
MW-16S-0624	X
MW-17S-0624	X
MW-18S-0624	X
MW-19S-0624	X
MW-20-85S-0624	X
MW-22-85S-0624	X
MW-23-85S-0624	X
MW-26S-0624	X
MW-27S-0624	X
MW-28S-0624	X
MW-30S-0624	X
MW-31SR-0624	X
MW-33S-0624	X
MW-34S-0624	X
MW-35SR-0624	X

BD

MW-36-0624	X
MW-36-0624-MS	X
MW-36-0624-MSD	X
MW-37-0624	X
MW-38-0624	X
MW-39S-0624	X
MW-40S-0624	X
MW-41-0624	X
MW-42-0624	X
MW-43-0624	X
MW-44-0624	X
MW-45-0624	X
MW-48-0624	X
MW-49-0624	X
MW-50-0624	X
MW-51-0624	X
MW-52-0624	X
MW-54-0624	X
MW-55-0624	X
MW-56-0624	X
PZ-44-0624	X
PZ-45-0624	X
PZ-46-0624	X
SLPWETE-0624	X
SLPWETW-0624	X
FDRAIN-0624	X
Sub total	**52**
QC/QA Labels	
MW-1205-0624BD	X
MW-1206-0624BD	X
MW-1207-0624FBW	X
MW-1208-0624FBW	X
MW-1209-0624FBW	X
MW-1210-0624FBW	X
MW-1211-0624FBW	X
MW-1212-0624FBW	X
MW-1213-0624FBW	X
MW-1214-0624FBW	X
MW-1215-0624FBW	X
MW-1216-0624FBW	X
MW-1217-0624FBW	X
MW-1218-0624FBW	X
Sub total	**14**

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-13-24

Well ID: MW-03S

Sampler(s): BC

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 0759 6-14-2024

Note: MW-1211 - FD 0815 6-14-24

Pre-purge Water Elevation: 6.09 (BTIC)

Intake Elevation: ~~19~~ 20 (BTIC)

Screened Interval: 15-25 (BTIC)

TIC Elevation: 225.89 227.2 (FT)

Depth of Well: 22.71 (FT)

Final Water Elevation: 19.31 (BTIC)

Pump used (Circle one): Waterra Peristaltic Grundfos Bailer

Temp: 66 (°F)

Wind: 9 (mph) Direction: WSW

YSI #: 11

Turbiditymeter #: 4

Time	Water Level (ft btic)	Flow Rate (mL/min)	Drawdown DO (mg/L)	Temperature (ºC)	DO (%) ± 10%	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		± 3 %	± 10 %	± 3 %	~~< 0.3 foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
1050	8.23	175		13.3	19.1	1.041	7.78	265.4	3.5	
1055	9.55	175		14.6	18.0	1.034	7.81	255.9	0.02	
1100	10.49	150		16.8	18.4	1.016	7.82	254.9	0.99	
1105	–									
1110	–									
1115	–									
1120	13.93	225		14.8	49.5	0.679	7.94	244.2	4.7	
1125	14.52	200		15.2	57.2	0.569	8.17	253.3	5.0	
1130	14.92	200		15.4	52.3	0.593	8.22	259.7	6.1	
1135	15.42	200		15.4	52.5	0.692	8.13	271.3	5.4	
1140										
1145										
0758	17.61	200		13.9	41.1	1.082	7.90	259.6	13.5	6/14/24

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	4.5			

Comments:

Wells cap a collar

375 ml/min @ start

Increase flow rate to purge ~~to intake~~ - 300 ml/min

Purge well to intake

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-10-2024

Well ID: MW-10S

Sampler(s): EDP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6-11-24 0913

(Page of)

Note: MS/MSD

Pre-purge Water Elevation: 7.28 (BTIC)

Intake Elevation: 18 (BTIC)

Screened Interval: 12.5-22.5 (BTIC)

TIC Elevation: 216.65 ~~217.62~~ (FT)

Depth of Well: 23.36 (FT)

Final Water Elevation: 13.03 (BTIC)

Pump used (Circle one): Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 55 (°F)

Wind: 9 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Flow Rate (mL/min)	DO (mg/L)	Temperature (ºC)	DO (%) ±10% ~~< 0.3 foot~~	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		± 3 %	± 10 %	± 3 %		± 3 %	± 10 %	±10 mV	± 10 %	
1100	9.59	200		10.4	74	0.759	6.96	265.9	4.14	
1105	10.48	150		11.5	71	0.754	7.00	273.0	1.93	
1110	11.20	150		11.4	69	0.754	7.02	273.8	1.31	
1115	11.60	125		11.6	70	0.750	7.03	277.3	1.50	Pump Shut off
1120	12.02	150		11.9	67	0.753	7.04	279.7	1.04	
1125	12.50	150		11.8	70	0.753	7.03	281.7	1.53	
1130	12.79	150		11.8	72	0.755	7.04	281.9	0.34	
1135	13.16	150		11.9	67	0.755	7.07	282.0	1.22	
										Not stabilizing purged to intake
1149	13.85	240*		10.9	67	0.750	7.07	283.4	1.59	
1154	13.98	240		10.9	65	0.753	7.05	284.9	1.52	
1159	14.24	240		11.4	65	0.760	7.06	280.6	2.00	Parameters didn't stabilize at 240mL/min
0910	7.75	150		12.2	72	0.769	7.01	236.5	3.15	*sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 5.25 gallons

Comments

Initial flowrate ~ 400mL/min

*flowrate at 240mL/min stabilized water level at 13.85 ft

~~-p~~ - purged down to ~~13~~ el. 18 ft

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-11-24

Well ID: MW-11SR

Sampler(s): BL

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 1155

(Page of)

Note: MW-1206-0624 BD 1200

Pre-purge Water Elevation: 9.75 (BTIC)

Intake Elevation: 17 (BTIC)

Screened Interval: 9-29 (BTIC)

TIC Elevation: 248.04 242.8 (FT)

Depth of Well: 24.41 (FT)

Final Water Elevation: 15.47 (BTIC)

Pump used (Circle one): Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 53 (°F)

Wind: 5.10 (mph) Direction: W

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Flow Rate (mL/min)	~~Drop down~~ DO (mg/L)	Temperature (ºC)	DO (%) ±10%	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		± 3 %	± 10 %	± 3 %	~~<0.3 foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
1105	11.42	325	1.67 ~~3.40~~	11.5	31.0	1.271	7.48	94.7	0.02	
1110	12.66	200	1.24	11.6	38.4	1.092	7.43	121.7	0.02	
1115	13.59	200	0.73	12.2	60.6	1.105	7.42	131.0	0.02	
1120	13.96	175	0.57	12.1	37.1	1.121	7.33	134.2	0.02	
1125	14.18	175	0.22	12.1	60.3	1.129	7.34	135.3	0.02	
1130	14.18	200	-	12.2	33.2	1.125	7.35	135.1	0.02	
1135	14.18	200	-	12.2	43.3	1.128	7.38	135.6	0.02	
1140	14.18	200	-	12.3	42.7	1.128	7.34	135.1	0.02	
1145	14.25	200	0.07	12.4	41.2	1.117	7.42	134.2	0.02	
1150	14.42	175	0.17	12.5	38.5	1.116	7.42	133.9	0.02	
1155	14.60	175	0.18	12.9	38.1	1.124	7.57	132.6	0.02	sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2.75

Comments

Check screen is frosted
325 ml/min @ start

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-11-2024

Well ID: MW-12S

Sampler(s): EJP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 0931 6-12-2024

(Page of)

Note: MS/MSD

Pre-purge Water Elevation: 7.04 (BTIC)

Intake Elevation: 14 (BTIC)

Screened Interval: 9-19 (BTIC)

TIC Elevation: 247.08 ~~248.18~~ (FT)

Depth of Well: 18.72 (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one): Waterra (Peristaltic) Grundfos Bailer

Temp: 61 (°F)

Wind: 5 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Flow Rate (mL/min)	DO (mg/L)	Temperature (ºC)	DO (%) ± 10%	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		± 3 %	± 10 %	± 3 %	~~< 0.3 foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
1215	9.83	150		13.9	67	2.761	7.24	182.6	14.1	
1220	10.19	150		14.3	66	3.013	7.17	196.7	9.24	
1225	10.62	125		14.3	64	3.074	7.15	199.9	10.7	
1230	10.86	125		14.6	62	3.159	7.14	201.8	10.6	
1235	11.34	130		14.0	59	3.229	7.14	202.3	13.2	
1240	11.72	130		13.8	32	3.258	7.14	202.0	14.7	
1245	11.90	130		13.9	33	3.352	7.15	202.6	9.97	
1250	12.1	150		13.7	32	3.423	7.16	202.9	5.16	
1255	12.25	130		14.1	37	3.481	7.17	201.5	4.74	
1300	12.31	130		14.1	39	3.509	7.17	199.5	4.23	* Purge to intake @ 14ft
0922	7.54	150		13.1	46	3.302	7.33	186.8	5.03	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 3.25 gallons

Comments: Initial flowrate ~450mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/10/24

Well ID: MW-13S

Sampler(s): JCG

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6/11/24 10:00

(Page of)

Note

Pre-purge Water Elevation: 6.68 (BTIC)

Intake Elevation: 13.77 2 (BTIC)

Screened Interval: 8.5-18.5 (BTIC)

TIC Elevation: 245.17 245.19 (FT)

Depth of Well: 18.77 (FT)

Final Water Elevation: 11.52 (BTIC)

Pump used (Circle one): Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 57 (°F)

Wind: 11 (mph) Direction: East

YSI #: 4 6/11 Rental

Turbiditymeter #: 4 6/11 Rental

Time	Water Level (ft btic)	~~Flow Rate~~ Draw (mL/min)	~~DO (mg/L)~~ Flow rate	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		± 3 %	± 10 %	± 3 %	< 0.3 foot	± 3 %	± 10 %	±10 mV	± 10 %	
16:19	7.20	~~200~~	200	10.9	28	5.67	6.94	104.9	0.02	
16:24	8.40	-1.20	200	11.0	36.8	5.64	6.97	183.6	0.02	
16:29	8.84	-0.44	200	11.2	41.1	5.130	7.02	217.0	0.02	
16:34	9.40	-0.56	200	11.3	46.6	4.111	7.12	223.3	0.02	
16:39	9.85	-0.45	200	11.3	44.0	4.091	7.11	224.9	0.02	
16:44	10.30	-0.45	200	11.3	40.8	4.397	7.07	229.7	0.02	
16:49	10.75	-0.45	200	11.3	37.0	4.824	7.03	237.2	0.02	
16:54	11.05	-0.30	175	11.2	34.3	5.09	7.01	240.8	0.02	
16:59	11.48	-0.43	175	11.2	29.9	5.31	7.00	243.7	0.02	
17:04	12.0	-0.52	175	11.1	25.1	5.50	6.97	246.3	0.02	
17:09	12.5	-0.5	175	10.9	20.3	5.64	6.97	240.6	0.02	
09:58	9.63		250	11.1	68.6	0.329	6.83	236.1	1.52	Ran Dry 6/11/24

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2.75

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/10/24

Well ID: MW-14S

Sampler(s): JCC

Analyte Collected		Time/Date
FCN		6/10/24 14:50
Flouride		
Sulfate		
PCBs		

(Page of)

Note

Pre-purge Water Elevation: 7.23 (BTIC)

Intake Elevation: 16' (BTIC)

Screened Interval: 10.15-20.15 (BTIC)

TIC Elevation: 247.97 248.16 (FT)

Depth of Well: 20.08 (FT)

Final Water Elevation: 19.71 (BTIC)

Pump used (Circle one)

Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 57 (°F)

Wind: 10 (mph) Direction: East

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
14:15	8.80	-1.57	200	11.6	86.0	1.448	7.25	77.1	0.02	
14:20	9.93	-1.13	200	11.3	83.1	1.446	7.23	105.7	0.02	
14:25	10.49	-0.56	200	11.3	82.0	1.446	7.22	115.5	0.02	
14:30	10.49	0	200	11.4	79.0	1.442	7.23	121.3	0.02	
14:35	10.47	+0.02	200	11.5	76.3	1.463	7.24	124.7	0.02	
14:40	10.48	-0.01	200	11.6	74.4	1.432	7.26	126.5	0.01	
14:45	10.73	-0.25	200	11.6	72.7	1.422	7.27	127.6	0.02	Stabilized

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 1.75

Comments

MW-1205 BD

MW-1207 FBW (14:40)

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-11-2024

Well ID: ~~MW-145~~ MW-155-87

Sampler(s):

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 1436 6-11-2024

(Page of)

Note

Pre-purge Water Elevation: 13.40 (BTIC)

Intake Elevation: 21 (BTIC)

Screened Interval: -23-33 (BTIC)

TIC Elevation: 248.72 (FT)

Depth of Well: 26.45 ✓ (FT)

Final Water Elevation: 17.39 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 64 (°F)

Wind: 4 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1352	16.93		125	12.7	45	0.795	7.24	235.1	4.11	
1357	17.27	0.34	125	13.9	43	0.784	7.24	232.7	5.00	
1402	17.27	0.00	125	14.1	41	0.775	7.24	231.0	4.82	
1407	17.27	0.00	125	13.7	45	0.770	7.21	228.1	5.86	
1412	17.27	0.00	125	13.4	54	0.805	7.19	226.8	7.63	
1417	17.27	0.00	125	13.9	55	0.813	7.19	224.6	9.38	
1422	17.27	0.00	125	13.9	55	0.826	7.17	223.2	8.15	
1427	17.27	0.00	125	13.6	54	0.842	7.17	222.5	6.95	
1432	17.27	0.00	125	13.7	53	0.843	7.17	222.0	7.53	*Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.25 gallons				

Comments

Check screened interval

Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/15/24

Well ID: MW-16S

Sampler(s): JCK

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6/15/24 08:25

(Page of)

Note

Pre-purge Water Elevation: 18.43 (BTIC)

Intake Elevation: ~~20-24~~ ~~21.5~~ 24' (BTIC)

Screened Interval: 15.08-25.08 (BTIC)

TIC Elevation: 228.68 (FT)

Depth of Well: 25.59 (FT)

Final Water Elevation: 18.47 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 55 (°F)

Wind: 6 (mph) Direction: ↓

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
07:50	18.50		300	11.9	60.9	1.157	7.77	198.6	4.43	
07:55	18.43	+0.07	280	11.9	55.5	1.162	7.77	191.9	1.74	
08:00	18.50	-0.07	300	11.7	56.3	1.167	7.79	187.9	0.02	
08:05	18.49	-0.01	300	11.6	37.5	1.170	7.77	185.7	0.02	
08:10	18.49	+0.02	300	11.7	31.5	1.186	7.78	180.5	0.02	
08:15	18.46	+0.01	300	11.6	27.5	1.193	7.78	178.3	0.02	
08:20	18.47	-0.01	300	11.7	26.6	1.205	7.78	180.5	0.02	Stabilized

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2.5 gallons

Comments

MW-512-FBW 08:35

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-12-2024

Well ID: MW-17S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	6-12-2024 1409
Flouride	✓	
Sulfate	✓	
PCBs	✓	

(Page of)

Note

Pre-purge Water Elevation: 11.71 (BTIC)

Intake Elevation: 16 (BTIC)

Screened Interval: 10.4-20.4 (BTIC)

TIC Elevation: 226.65 (FT)

Depth of Well: 20.22 (FT)

Final Water Elevation: 15.29 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 68 (°F)

Wind: 5 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1336	13.04		200	11.7	85	0.972	6.95	-55.4	172	
1341	13.44	0.40	150	12.6	74	0.973	6.96	-60.6	1.72	
1346	13.94	0.50	150	13.3	69	0.982	6.97	-61.0	2.83	
1351	14.50	0.46	110	13.5	64	0.980	6.97	-59.4	2.34	
1356	14.49	0.01	100	13.4	59	0.980	6.97	-51.4	4.04	
1401	14.61	0.12	100	13.6	57	0.978	6.97	-52.2	3.36	
1406	14.69	0.08	100	13.6	56	0.981	6.97	-53.1	3.52	*Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2 gallons purged

Comments

Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/15/2024

Well ID: MW-18S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	–	0832 6/15/2024
Flouride	–	
Sulfate	–	
PCBs	–	

(Page of)

Note

Pre-purge Water Elevation: 18.38 (BTIC)

Intake Elevation: ~~20~~ EDP 22 (BTIC)

Screened Interval: 14.55-24.55 (BTIC)

TIC Elevation: 226.67 (FT)

Depth of Well: 25.44 (FT)

Final Water Elevation: 18.39 (BTIC)

Pump used (Circle one): Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 56 (°F)

Wind: 6 (mph) Direction: NNE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0757	18.39		150	13.2	82	1.157	7.43	251.7	27.8	
0802	18.39		125	13.4	84	1.180	7.39	255.8	20.8	
0807	18.39		125	13.4	83	1.193	7.39	255.6	15.1	
0812	18.39		125	13.6	86	1.202	7.41	248.9	16.0	
0817	18.39		125	13.5	82	1.232	7.40	231.8	10.2	
0822	18.39		125	13.5	80	1.237	7.36	233.4	9.39	
0827	18.39		125	13.5	82	1.240	7.37	236.2	9.53	* sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				

Volume Purged: 1.75 gallons

Comments

Initial flowrate 400 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-17-2024

Well ID: MW-19S

Sampler(s): EDP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 0952 6-13-2024

(Page of)

Note

Pre-purge Water Elevation: 12.91 (BTIC)

Intake Elevation: 14.9 (BTIC)

Screened Interval: 9-19 (BTIC)

TIC Elevation: 226.55 (FT)

Depth of Well: 19.4 (FT)

Final Water Elevation: 14.84 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 65 (°F)

Wind: 6 (mph) Direction: WSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1130	13.42		150	11.9	67	0.785	7.15	274.7	1.23	
1135	13.70	0.28	160	12.3	62	0.804	7.14	284.4	0.84	
1140	13.82	0.12	125	12.5	59	0.807	7.15	288.7	0.58	
1145	13.96	0.14	130	12.4	56	0.807	7.15	290.7	0.82	
1150	14.29	0.33	125	12.5	53	0.804	7.17	291.5	1.18	
1155	14.71	0.72	125	12.5	50	0.808	7.16	293.1	1.53	
1200	14.84	0.13	125	12.4	48	0.807	7.14	294.6	—	randry
0951	13.41		150	14.9	62	0.801	6.65	286.7	0.02	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 1.5 gallons				

Comments

Initial flow rate ~ 125 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-11-24

Well ID: MW-20-85S

Sampler(s): RC

Analyte Collected		Time/Date
FCN	/	0904 6-12-2024
Flouride	/	
Sulfate	/	
PCBs	/	

(Page of)

Note: well is damaged at a depth of 12.1 ft

Pre-purge Water Elevation: 11.82 (BTIC)

Intake Elevation: 15 (BTIC)

Screened Interval: 20.5-30.5 (GL) (BTIC)

TIC Elevation: 223.1 (GL) (FT)

Depth of Well: 18.37 (FT)

Final Water Elevation: ~~CDR 12.1~~ 16.91 (BTIC)

Pump used (Circle one): Waterra / Peristaltic / Grundfos / Bailer

Temp: 56 (°F)

Wind: 5 (mph) Direction: W

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1030	13.58	1.76	225	12.1	52.9	2.337	11.88	-81.1	8.2	
1035	14.91	1.33	150	12.7	62.7	2.294	11.89	-76.8	0.02	
0903	14.01	~	150	12.2	78	1.682	11.47	83.8	20.0	*Sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 0.75

Comments

Check and change screen interval

225 ml/min at start Purge down to intake at 225 ml/min

Well dry at 1039

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-17-2024

Well ID: MW-22-85S

Sampler(s): EJP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 0935 6-17-2024

(Page of)

Note: MW-1213-FBW 0956

Pre-purge Water Elevation: 10.14 (BTIC)

Intake Elevation: 27 (BTIC)

Screened Interval: 20.3-30.3 (GL) (BTIC)

TIC Elevation: 244.5 (GL) (FT)

Depth of Well: 32.88 (FT)

Final Water Elevation: 15.75 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 65 (°F)

Wind: 5 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0838	12.32		125	11.9	68	1.757	7.17	228.0	133	
0843	12.77	0.55	150	12.2	62	1.769	7.19	233.1	8.89	
0848	13.26	0.49	150	12.6	57	1.761	7.20	230.4	7.77	
0853	13.61	0.35	150	12.7	52	1.756	7.21	221.6	6.20	
0858	14.03	0.42	150	12.5	48	EDP ~~1.337~~ 1.756	7.21	206.1	6.98	
0903	14.30	0.27	150	12.7	43	1.752	7.21	158.2	7.91	
0908	14.45	0.15	150	12.8	41	1.744	7.21	136.7	4.07	
0913	14.61	0.16	150	12.8	37	1.751	7.21	119.4	4.85	
0918	14.74	0.13	150	12.9	34	1.744	7.22	98.7	4.97	
0923	14.80	0.06	150	12.6	32	1.740	7.22	93.8	4.27	
0928	14.90	0.10	150	12.7	32	1.740	7.22	91.3	4.82	* sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.5 gallons				

Comments: Initial flowrate ~400mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6/11/24

Well ID: MW-23-85S

Sampler(s): JCG

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6/11/24 12:10

Note:

Pre-purge Water Elevation: 9.65 (BTIC)

Intake Elevation: 28.03 (BTIC)

Screened Interval: 22.8-32.8 (BTIC)

TIC Elevation: 244.7 (FT)

Depth of Well: ~~83.03~~ 33.03 (FT)

Final Water Elevation: 25.35 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 55 (°F)

Wind: 8 (mph) Direction: East

YSI #: Rental 6311

Turbiditymeter #: Rental 6311

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
10:57	11.23	~~-1.01~~	215	11.6	48.5	1.310	7.19	206.9	137.2	
11:02	12.24	-1.01	120	11.6	45.5	1.306	6.90	226.2	200.9	
11:07	13.41	-1.17	150	11.3	44.0	1.308	6.87	232.5	170.9	
11:12	14.25	-0.84	100	11.6	40.8	1.304	6.84	237.0	133.9	
11:17	15.44	-1.19	150	11.1	39.3	1.305	6.84	239.8	123.9	
11:22	16.23	-0.79	125	11.4	37.6	1.303	6.84	241.8	118.67	
11:27	17.03	-0.80	145	11.9	38.4	1.306	6.85	243.0	127.0	
11:32	17.71	-0.68	110	12.2	37.7	1.304	6.86	243.5	124.57	
11:37	18.23	-0.52	380	13.1	39.7	1.316	6.87	244.0	116.54	
11:42	20.35	-2.12	300	10.2	25.3	1.306	6.87	243.8	60.80	
11:47	21.80	-1.45	200	10.8	26.8	1.304	6.85	243.1	55.12	
11:52	22.80	-1.00	100	11.5	28.4	1.305	6.87	241.1	48.88	
11:57	23.53	-0.73	300	10.6	27.8	1.307	6.89	240.3	47.25	
12:02	23.50	+0.03	300	10.5	29.4	1.306	6.90	240.4	42.70	Stabilized

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				

Volume Purged: 3 gallons

Comments

~~Drew down would't stabilize, purging to intake.~~

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/11/24

Well ID: MW-26S

Sampler(s): JCG

Analyte Collected		Time/Date
FCN	x	6/11/24 14:40
Flouride	x	
Sulfate	x	
PCBs	x	

(Page of)

Note

Pre-purge Water Elevation: 10.76 (BTIC)

Intake Elevation: 25' (BTIC)

Screened Interval: 19.5-29.5 (BTIC)

TIC Elevation: 225.14 (FT)

Depth of Well: 30.06 (FT)

Final Water Elevation: 20.33' (BTIC)

Pump used (Circle one): Waterra (Peristaltic) Grundfos Bailer

Temp: 60 (°F)

Wind: 5 (mph) Direction: East

YSI #: Rental 6311

Turbiditymeter #: Rental 6311

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
13:20	12.60		250	12.9	34.3	0.929	7.24	169.4	165.4	
13:25	13.65	-1.05	165	12.9	30.3	0.927	7.10	179.8	3.02	
13:30	14.53	-0.88	120	12.8	26.2	0.927	7.03	185.6	7.58	
13:35	15.36	-0.83	200	12.7	19.7	0.922	7.03	185.8	6.48	
13:40	16.27	-0.91	200	12.9	18.7	0.921	7.01	184.6	6.44	
13:45	17.10			12.7	15.0	0.922	-	-	-	
13:50	-	-	-	-	-	-	-	-	-	Lost flow
13:55	18.13	-	150	13.2	14.4	0.918	6.98	192.5	2.90	
14:00	18.53	-0.40	130	13.5	13.3	0.914	6.97	190.3	2.10	
14:05	18.95	-0.42	130	13.6	13.2	0.912	6.98	188.9	2.45	
14:10	-	-	130	-	-	-	-	-	-	Lost flow
14:15	19.20	-0.25	150	13.3	12~~0~~13.7	0.924	6.97	183.9	3.05	
14:20	19.38		140	13.9	13.4	0.912	6.96	182.5	2.84	
14:25	19.52		140	13.6	13.7	0.917	7.03	143.0	3.70	
14:30	19.64		140	13.8	13.5	0.923	6.97	151.9	2.41	
14:35	19.73			13.9	13.6	0.918	6.96	160.9	3.23	Stabilized

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments

MW-120S FBW @ 15:00

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-13-24

Well ID: MW-27S

Sampler(s): BC

Analyte Collected		Time/Date
FCN	/	0823 6-14-2024
Flouride	/	
Sulfate	/	
PCBs	/	

(Page of)

Note

Pre-purge Water Elevation: 5.97 (BTIC)

Intake Elevation: 19 (BTIC)

Screened Interval: 14.8-24.8 (BTIC)

TIC Elevation: 229.79 (FT)

Depth of Well: 24.91 (FT)

Final Water Elevation: 12.21 (BTIC)

Pump used (Circle one): Waterra, Peristaltic, Grundfos, Bailer

Temp: 19 (°F)

Wind: 10-20 (mph) Direction: SW

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1210	12.23		350 215	15.6	81.4	6.77	7.23	103.0	0.02	
1215	13.33		200	17.4	80.1	6.78	7.23	117.8	0.02	
1220	14.22		200	18.1	78.4	6.74	7.20	123.9	0.02	
1225	15.13		200	18.3	72.9	6.79	7.21	125.1	0.02	
1230	15.17		200	17.8	32.7	6.78	7.23	126.1	0.02	
1235	15.40		200	18.2	74.7	6.80	7.25	127.9	0.02	
1240	15.54		225	18.3	42.2	6.79	7.22	129.9	0.02	
1245	16.21		225	16.2	57.7	6.79	7.22	126.7	0.02	
1250	16.42		225	17.3	75.3	6.83	7.21	124.0	0.02	
1255	16.84		225	17.4	20.7	6.89	7.20	119.1	0.02	
1300										
~~0334~~										
0320	8.84			14.4	39.1	8.01	7.25	251.2	0.02	*Sampled 6/14/2024

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	3.75			

Comments

350 ml/min @ start.
Purge to intake DO and static will not stabilize

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6/11/24

Well ID: MW-28S

Sampler(s): SCO

Analyte Collected		Time/Date
FCN	✓	6/11/24 16:30
Flouride	✓	
Sulfate	✓	
PCBs	✓	

Note

Pre-purge Water Elevation: 11.56' (BTIC)

Intake Elevation: 22.5' (BTIC)

Screened Interval: --- ? (BTIC)

TIC Elevation: --- ? (FT)

Depth of Well: 27.56 (FT)

Final Water Elevation: 12.55 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 63 (°F)

Wind: 3 (mph) Direction: East

YSI #: Rental 6311

Turbiditymeter #: Rental 6311

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
15:45	12.50	-0.94	280	11.7	33.7	1.039	8.10	197.0	11.68	
15:50	12.50	-0	250	11.6	25.1	1.037	7.91	157.2	16.02	
15:55	12.50	0	250	11.6	21.1	1.040	7.87	129.4	25.71	
16:00	12.53	-0.03	250	11.5	17.2	1.039	7.85	116.8	36.39	
16:05	12.53	0	250	11.4	14.3	1.038	7.83	13.9	45.70	
16:10	12.54	-0.01	250	11.4	11.9	1.038	7.83	-64.6	68.65	
16:15	12.55	-0.01	250	11.3	10.4	1.038	7.82	-95.7	100.42	TM #5 - 2.45
16:20	12.54	+0.01	250	11.3	10.0	1.039	7.82	-115.4	2.40	TM #5
16:25	12.54	0	250	11.2	9.5	1.037	7.82	-125.8	2.20	TM #5

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 3 gallons				

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/10/24

Well ID: MW-30S

Sampler(s): JCG

Analyte Collected		Time/Date
FCN	✓	6/10/24 11:25
Flouride	✓	
Sulfate	✓	
PCBs	✓	

(Page of)

Note

Pre-purge Water Elevation: 6.29 (BTIC)

Intake Elevation: 14' (BTIC)

Screened Interval: ~~10-20~~ (BTIC)

TIC Elevation: 235.05 (FT)

Depth of Well: 17.81 (FT)

Final Water Elevation: 6.72 (BTIC)

Pump used (Circle one)

(Waterra) Peristaltic Grundfos Bailer

Temp: 55 (°F)

Wind: 9 (mph) Direction: East

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
10:38	6.41	-0.12	200	10.8	29.6	1.147	6.91	-56.4	8.85	
10:43	6.45	-0.04	200	11.1	24.9	1.166	6.94	-54.8	11.7	
10:48	6.48	-0.03	200	11.3	19.9	1.169	6.94	-67.6	13.2	
10:53	6.52	-0.04	206	11.5	17.3	1.150	6.93	-80.4	7.61	
10:58	6.55	-0.03	200	11.6	16.3	1.066	6.83	-76.3	1.13	
11:03	6.59	-0.04	200	11.9	14.3	0.989	6.81	-53.5	0.47	
11:08	6.62	-0.03	200	11.8	12.8	0.951	6.79	-42.9	0.02	
11:13	6.64	-0.02	200	11.7	12.2	0.937	6.78	-34.8	0.02	
11:18	6.68	-0.04	200	11.9	12.1	0.927	6.78	-27.4	0.02	
11:23	6.71		200	12.1	12.8	0.924	6.78	-21.0	0.02	Stabilized

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	2-6 gallons			

Comments

check screened interval

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date:

Well ID: MW-31SR

Sampler(s): JT

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6/11/24 09:30

Note:

Pre-purge Water Elevation: 15.15 (BTIC)

Intake Elevation: 21' (BTIC)

Screened Interval: 12.2-22.2 (BTIC)

TIC Elevation: 224.28 (FT)

Depth of Well: 29.89 (FT)

Final Water Elevation: 19.34 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 57 (°F)

Wind: 8 (mph) Direction: East

YSI #: 4 6/11 Rental

Turbiditymeter #: 4 6/11 Rental

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
~~12:23~~	16.38		180	11.1	21.4	0.787	7.98	-29.0	0.02	
12:28	17.20		180	10.8	18.7	0.783	7.75	-35.1	0.02	
12:33	17.80		~~75~~ 150	10.6	16.6	0.784	7.74	44.4	0.02	
12:38	18.30		150	11.0	15.4	0.784	7.72	44.4	0.02	upping to 500mL/m
~~12:43~~	20.38	—	225	~~14.7~~	—	—	—	—	—	1:08
~~12:48~~	20.45		225	9.9	7.8	1.045	7.28	86.4	0.02	1:11
~~12:53~~	20.45		200	9.9	7.3	1.080	7.23	67.3	0.02	1:16
1:21	20.35		200	10.0	7.7	1.092	7.22	57.7	0.02	
1:26	20.40		200	10.4	9.9	1.113	7.18	51.6	0.02	
1:31	20.50		200	10.2	10.2	1.143	7.18	49.0	0.02	
~~1:36~~										ran Dry
~~1:41~~										
~~1:46~~										
09:16	16.59		200	10.7	51.9	0.863	6.97	262.5	0.55	6/11/24

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	4 gallons			

Comments:

Less than 10' of water above screen. Took a few readings before upping pumping rate to 500 mL/min, pumping to intake.

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-11-2024

Well ID: MW-33S

Sampler(s): ED P

Analyte Collected		Time/Date
FCN		1043 6-11-2024

(Page of)

Note

Pre-purge Water Elevation: 13.21 (BTIC)

Intake Elevation: 22 (BTIC)

Screened Interval: 18.54-28.54 (BTIC)

TIC Elevation: 225.74 (FT)

Depth of Well: 29.38 (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 64 (°F)

Wind: 3 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1545	15.72	~~1.31~~ EOP	275	11.4	21	1.810	7.35	214.9	3.58	
1550	17.03	1.31	200	11.9	36	1.806	7.35	214.8	1.17	
1555	17.71	0.68	100	12.5	71	1.802	7.35	215.5	1.49	
1600	18.38	0.67	100	12.8	38	1.805	7.48	189.3	2.31	YSI turned off
1605	18.82	0.40	100	13.1	38	1.807	7.38	208.9	2.63	
1610	19.26	0.34	125	12.9	38	1.815	7.39	220.6	2.16	*Purge down to
1615	19.79	0.53	125	13.2	38	1.819	7.37	201.7	2.17	intake
1035	18.27		125	14.2	46	1.840	7.50	201.7	1.35	*Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	3.5 gallons			

Comments

Initial flowrate ~450mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/13/24

Well ID: MW-34S

Sampler(s): JCC

Analyte Collected	
FCN	✓

Time/Date: 0850, 6-14-2024

(Page of)

Note:

Pre-purge Water Elevation: 13.05 (BTIC)

Intake Elevation: 24.56' (BTIC)

Screened Interval: 17.67-27.67 (BTIC)

TIC Elevation: 225.74 (FT)

Depth of Well: 31.56 (FT)

Final Water Elevation: 18.25 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 73 (°F)

Wind: 5 (mph) Direction: N ↑

YSI #: Rental 6311

Turbiditymeter #: Rental 6311

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
10:25	16.73		250	13.5	34.7	2.823	7.52	203.9	13.2	
10:30	17.74	-1.01	250	14.1	28.8	2.828	7.51	207.3	12.16	
10:35	18.67	-0.93	250	14.8	30.8	2.817	7.44	209.2	8.69	
10:40	19.30	-0.63	200		31.1	2.320	7.39	209.5	7.62	
10:45										
10:50										
10:55										
0845	17.05		200	14.2	33.2	3.101	7.78	156.3	0.02	*Sampled 6/14/2024

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.75				

Comments:

Purged to intake - Difficult to keep steady flow.
Ran dry at 11:05

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/12/24

Well ID: MW-35SR

Sampler(s): SCG

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6/12/24 14:18

(Page of)

Note

Pre-purge Water Elevation: 16.02 (BTIC)

Intake Elevation: 23.92' (BTIC)

Screened Interval: 19.17-29.17 ? (BTIC)

TIC Elevation: 213.52 (FT)

Depth of Well: 27.92 (FT)

Final Water Elevation: 19.37' (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 65 (°F)

Wind: 7 (mph) Direction: NE

YSI #: Rental 631

Turbiditymeter #: # 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
13:38	17.33	-1.31	200	11.8	30.7	1.747	7.04	192.4	235	
13:43	17.73	-0.40	180	11.7	25.2	1.744	6.69	201.4	171	
13:48	18.10	-0.37	150	12.0	19.2	1.736	6.66	209.0	135	
13:53	18.41	-0.31	150	12.0	15.9	1.722	6.65	213.9	121	
13:58	18.61	-0.20	150	12.0	13.6	1.745	6.63	216.9	80.8	
14:03	18.80	-0.19	150	12.1	11.9	1.758	6.62	218.6	52.4	
14:08	18.92	-0.12	140	12.3	10.8	1.763	6.62	220.3	52.5	
14:13	19.06	-0.14	150	12.0	9.8	1.768	6.61	221.9	47.9	Stabilized
14:18										

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.5				

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/13/24

Well ID: MW-36

Sampler(s): JCG

Analyte Collected		Time/Date
FCN		6/13/24 12:50
Flouride		
Sulfate		
PCBs		

(Page of)

Note

Pre-purge Water Elevation: 8.43 (BTIC)

Intake Elevation: ~~8.43~~ 29.' (BTIC)

Screened Interval: 24.06-34.06 (BTIC)

TIC Elevation: 209.36 (FT)

Depth of Well: 33.75 (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one)

(Waterra) Peristaltic Grundfos Bailer

Temp: 79 (°F)

Wind: 11 (mph) Direction: N

YSI #: 6311

Turbiditymeter #: 6311

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
12:05	14.15		150	19.1	49.3	2.473	8.09	149.1	901.58	
12:10	15.33		100	20.1	47.7	2.463	7.98	166.9	1055.3	
12:15	15.95		150	20.9	49.6	2.488	7.97	174.0	1172.89	
12:20	16.85		100	20.3	43.0	2.476	7.94	181.6	1227.9	
12:25	17.65		100	21.6	44.1	2.496	7.93	186.7	1259.6	
12:30	18.43		140	21.2	41.1	2.489	7.91	190.4	1368.65	
12:35	19.34		120	20.5	36.6	2.485	7.90	193.3	1590.70	
12:40	20.25		120	20.1	33.2	2.462	7.88	194.9	1950.20	Stabilized
12:45										

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	2.7 gallons			

Comments

pumped at 300 mL/min until water cleared up.
MW-1210-FDup @ 13:30

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-13-2024

Well ID: MW-37

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1428
Flouride	✓	
Sulfate	✓	6-13-2024
PCBs	✓	

(Page of)

Note: BD 1459

Pre-purge Water Elevation: 5.03 (BTIC)

Intake Elevation: EDP ~~30~~ 29 (BTIC)

Screened Interval: 24.75-34.75 (BTIC)

TIC Elevation: 209.36 (FT)

Depth of Well: 35.31 (FT)

Final Water Elevation: 9.94 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: ~~78~~ (°F)

Wind: 12 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1253	12.20		310	16.1	6	0.898	7.36	51.7	0.59	water is basically black
1258	13.80	1.6	310	16.5	6	1.080	7.36	19.1	1.76	
1303	13.30	0.5	330	15.8	6	1.083	7.36	-7.6	2.40	
1308	13.71	0.41	350	14.7	7	1.097	7.37	29.0	77.6	
1313	14.01	0.30	500	13.8	4	1.102	7.34	-70.3	111	
1318	13.80	0.21	330	14.5	3	1.097	7.29	-62.4	284	
1323	13.51	0.29	330	15.2	4	1.109	7.28	-69.1	438	
1328	13.29	0.22	330	14.7	4	1.105	7.27	-71.2	789	
1333	13.25	0.04	330	14.3	7	1.117	7.26	-62.6	1100	
1338	13.25	0.00	330	14.0	4	1.112	7.26	-75.3	1040	
1343	13.25	0.00	330	14.1	4	1.112	7.26	-77.3	957	
1348	13.25	000	330	14.0	4	1.111	7.25	-77.7	950	* Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	7.75 gallons			

Comments: Initial flowrate ~650mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-13-2024

Well ID: MW-38

Sampler(s): EDB

Analyte Collected	
FCN	~
Flouride	~
Sulfate	~
PCBs	~

Time/Date: 0913 6/14/2024

(Page of)

Note

Pre-purge Water Elevation: 9.58 (BTIC)

Intake Elevation: 30 (BTIC)

Screened Interval: 26.24-36.24 (BTIC)

TIC Elevation: 202.64 (FT)

Depth of Well: 35.01 (FT)

Final Water Elevation: 29.6 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 74 (°F)

Wind: 10 (mph) Direction: SSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1100	14.75		300	12.7	19	0.634	7.90	151.0	672	
1105	19.00	4.25	300	12.8	11	0.634	7.89	145.4	1030	
1110	20.43	1.43	200	16.1	13	0.634	7.83	139.1	838	
1115	21.22	~~0.79~~ 0.79	175	16.3	13	0.638	7.84	147.8	694	
1120	21.97	0.75	150	16.4	13	0.635	7.86	147.6	617	
1125	22.58	0.61	125	18.2	16	0.633	7.84	183.3	582	
1130	22.98	0.40	100	20.0	18	0.634	7.81	199.5	583	*Purge down to intake
0902	13.66			17.0	28.1	0.679	8.10	168.3	142	*Sampled 6/14/2024

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 6.25 gallons				

Comments

Initial flowrate ~600mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-10-2024

Well ID: MW-39S

Sampler(s): EDP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 1403, 6-10-2024

Note:

Pre-purge Water Elevation: 4.51 (BTIC)

Intake Elevation: 14 (BTIC)

Screened Interval: 10.95-20.95 (BTIC)

TIC Elevation: 195.87 (FT)

Depth of Well: 20.93 (FT)

Final Water Elevation: 7.93 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 55 (°F)

Wind: 9 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1320	6.64		225	10.4	56	0.931	7.02	39.2	1.49	
1325	7.42	0.78	175	11.7	53	0.914	6.98	62.5	1.69	
1330	7.62	0.20	175	11.9	51	0.906	6.96	54.1	1.51	
1335	7.78	0.16	175	11.7	48	0.885	6.92	30.1	1.42	
1340	7.89	0.11	150	11.5	49	0.877	6.89	11.3	1.20	
1345	7.98	0.09	150	11.5	48	0.876	6.86	-2.3	1.82	
1350	8.03	0.05	150	11.4	43	0.882	6.84	-9.6	1.18	
1355	8.09	0.05	150	11.3	41	0.891	6.83	-14.9	1.11	
1400	8.13	0.04	150	11.3	37	0.897	6.82	-19.6	1.63	* sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.25 gallons				

Comments: Initial flowrate ~ 425 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-10-2024

Well ID: MW-40S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN		1706 6-10-2024
Flouride		
Sulfate		
PCBs		

(Page of)

Note

Pre-purge Water Elevation: 2.82 (BTIC)

Intake Elevation: 16.00 (BTIC)

Screened Interval: 9.94-19.94 (BTIC)

TIC Elevation: 193.75 (FT)

Depth of Well: ~~12.00~~ 21.00 (FT)

Final Water Elevation: 7.32 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 59 (°F)

Wind: 9 (mph) Direction: W NW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1628	4.96		150	12.5	25	1.271	7.02	196.6	1.34	
1633	5.40	0.44	150	13.5	26	1.273	7.01	197.3	2.01	
1638	5.88	0.48	150	13.4	26	1.299	6.96	198.8	0.95	
1643	6.31	0.43	150	13.3	24	1.324	6.95	198.0	1.68	
1648	6.71	0.40	150	13.3	22	1.343	6.94	196.2	1.85	
1653	6.96	0.25	150	13.2	21	1.356	6.94	193.9	1.20	
1658	7.03	0.07	150	13.2	21	1.359	6.93	192.8	1.01	
1703	7.13	0.10	150	13.1	20	1.356	6.93	191.5	2.45	* sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.25 gallons				

Comments

Initial flowrate ~400mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-12-2024

Well ID: MW-41

Sampler(s): EDP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: # 1639 6-12-2024

Note

Pre-purge Water Elevation: 25.6 (BTIC)

Intake Elevation: 42 (BTIC)

Screened Interval: 35-45 (GL) (BTIC)

TIC Elevation: 221 (GL) (FT)

Depth of Well: 48.03 (FT)

Final Water Elevation: 38.96 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 71 (°F)

Wind: 6 (mph) Direction: WSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1555	32.07		200	12.6	30	1.089	7.37	249.1	983	
1600	33.28	1.21	200	13.8	33	1.114	7.38	250.0	972	
1605	34.18	0.90	100	15.4	34	1.107	7.37	248.5	902	
1610	34.78	0.60	100	16.5	38	1.115	7.37	249.7	815	
1615	35.38	0.60	100	16.9	38	1.123	7.37	250.6	667	
1620	36.84	1.46	100	16.8	36	1.122	7.38	250.5	572	
1625	36.56	0.28	100	16.5	36	1.122	7.39	249.9	422	
1630	37.21	0.45	100	16.5	35	1.118	7.38	249.8	337	*sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.25 gallons				

Comments: Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6/12/24

Well ID: MW-42

Sampler(s):

Analyte Collected	✓
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6/12/24 15:00

Note:

Pre-purge Water Elevation: 22.42 (BTIC)

Intake Elevation: 41' (BTIC)

Screened Interval: 34-44 (GL) (BTIC)

TIC Elevation: 211.3 (GL) (FT)

Depth of Well: 47.92 (FT)

Final Water Elevation: 37.04 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 66 (°F)

Wind: 7 (mph) Direction: NE

YSI #: 6311

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
15:15	30.35		160	13.8	53.3	3.646	7.56	222.9	729	
15:20	31.44	-1.09	140	14.5	56.8	3.618	7.59	229.0	745	
15:25	32.26	-0.82	120	15.6	59.9	3.597	7.65	226.3	659	
15:30	32.93	-0.67	120	16.4	61.6	3.607	7.74	222.9	588	
15:35	33.50	-0.57	250	16.9	62.9	3.593	7.79	220.4	576	
15:40	34.38	-0.88	140	14.5	64.2	3.588	7.83	224.3	588	
15:45	35.20	-0.82	140	15.2	64.6	3.585	7.77	231.2	551	
15:50	35.45	-0.65	110	15.4	65.1	3.580	7.77	232.7	592	Stabilized

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2.75 gallons

Comments

Ran at 400 mL/min to clear out sediment for approx 8 min.

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6/12/24

Well ID: MW-43

Sampler(s): JCC

Analyte Collected		Time/Date
FCN	✓	6/12/24 11:40
Flouride	✓	
Sulfate	✓	
PCBs	✓	

Note

Pre-purge Water Elevation: 9.43 (BTIC)

Intake Elevation: ~~48.13~~ 39.5' (BTIC)

Screened Interval: 34.5-44.5 (GL) (BTIC)

TIC Elevation: 206.2 (GL) (FT)

Depth of Well: ~~48.13~~ 47.5 (FT)

Final Water Elevation: 10:15 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 62 (°F)

Wind: 5 (mph) Direction: N E

YSI #: Rental 6311

Turbiditymeter #: Rental 6311/10 #4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
10:50	9.61	-0.18	200	13.9	76.4	1.021	6.79	229.8	41.63	TB#4 - ~~600~~ 1010
10:55	9.69	-0.08	260	12.1	74.2	1.016	6.57	254.9	770.62	TB#4 - 1070
11:00	9.83		300	11.6	65.6	1.013	6.52	267.4	788.07	
11:05	-	-	-	-	-	-	-	-	-	
11:10	9.99	-0.16	300	11.5	57.0	1.013	6.50	282.2	577.8	TB#4 - 965
11:15	10.05	-0.06	300	11.4	54.0	1.014	6.51	286.3	826	
11:20	10.11	-0.06	300	11.3	51.0	1.014	6.50	290.4	713	
11:25	10.15	-0.04	300	11.4	49.0	1.014	6.50	293.7	706	
11:30	10.19	-0.04	300	11.4	48.0	1.014	6.49	296.5	644	Stabilized
11:35										

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 3.5 gallons

Comments

New tubing installed prior to purge.

x

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6/12/24

Well ID: MW-44

Sampler(s): JCG

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6/12/24 09:55

(Page of)

Note:

Pre-purge Water Elevation: 8.91 (BTIC)

Intake Elevation: 20.77' (BTIC)

Screened Interval: 15-25 (GL) (BTIC)

TIC Elevation: 208.7 (GL) (FT)

Depth of Well: 28.77 (FT)

Final Water Elevation: 9.44 (BTIC)

Pump used (Circle one): Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 60 (°F)

Wind: S (mph) Direction: N E

YSI #: Rental 6311

Turbiditymeter #: Rental 6311

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
09:08	9.05	-0.14	240	10.8	72.6	0.936	6.59	260.3	6.89	
09:13	9.13	-0.08	240	10.7	57.2	0.964	6.38	278.4	5.24	
09:18	9.20	-0.07	240	10.6	62.6	0.977	6.38	284.4	4.08	TB#4 - 2.25
09:23	9.24	-0.04	250	10.6	64.4	0.982	6.39	288.9	3.92	TB#4 - 0.06
09:28	9.31	-0.07	250	10.6	49.4	0.984	6.40	292.0	3.79	TB#4 - 0.02
09:33	9.35	-0.04	250	10.5	37.7	0.986	6.40	295.0	4.25	TB#4 - 0.02
09:38	9.39	-0.04	250	10.4	47.4	0.988	6.40	297.6	9.70	TB#4 - 0.02
09:43	9.43	-0.04	250	10.5	46.8	0.987	6.40	299.8	7.87	TB#4 = 0.02
09:48	9.46	-0.03		10.4	42.6	0.989	6.40	301.7	5.48	0.02 Stabilized
09:53										

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	3.25 gallons			

Comments:

New tubing installed prior to purge.

MW-1209 FBW @ 10:12

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-10-2024

Well ID: MW-45

Sampler(s): EDB

Analyte Collected	
FCN	~
Flouride	~
Sulfate	~
PCBs	~

Time/Date: 1522, 6-10-2024

Note:

Pre-purge Water Elevation: 4.55 (BTIC)

Intake Elevation: 12 (BTIC)

Screened Interval: 5-15 (GL) (BTIC)

TIC Elevation: 195.7 (GL) (FT)

Depth of Well: 17.73 (FT)

Final Water Elevation: 6.90 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 59 (°F)

Wind: 9 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1440	6.34		200	10.9	83	1.606	6.90	155.8	1.16	
1445	6.54	0.20	175	11.8	81	1.621	6.84	193.6	0.88	
1450	6.62	0.08	150	11.9	79	1.676	6.78	163.2	0.81	
1455	6.68	0.06	150	11.7	78	1.687	6.76	124.4	1.60	
1500	6.71	0.03	150	11.7	76	1.693	6.74	96.1	0.91	
1505	6.72	0.01	150	11.7	38	1.695	6.74	82.6	1.05	
1510	6.74	0.02	150	11.5	47	1.712	6.72	70.3	0.35	
1515	6.74	0.00	150	11.6	43	1.712	6.71	62.8	1.52	
1520	6.75	0.01	150	11.5	43	1.716	6.71	60.8	1.08	*sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2 gallons				

Comments: Initial flowrate ~ 425 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-17-2024

Well ID: MW-48

Sampler(s): EDP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 1012 6-18-2024

Note: MW-12/4 FBW 1044

Pre-purge Water Elevation: 9.23 (BTIC)

Intake Elevation: 22 (BTIC)

Screened Interval: 13-28 (BTIC)

TIC Elevation: 194.01 (FT)

Depth of Well: 28 (FT)

Final Water Elevation: 18.75 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 75 (°F)

Wind: 6 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0931	11.46		250	12.7	37	1.546	7.06	148.3	26.9	
0936	12.48	~~0.~~ 1.02	150	15.5	36	1.512	7.17	147.9	23.4	
0941	14.18	1.70	150	16.1	31	1.527	7.16	148.5	18.7	
0946	15.18	1.00	125	16.4	29	1.531	7.16	147.8	28.1	
0951	16.12	0.94	125	16.7	33	1.525	7.16	146.5	+621.4	
0956	16.20	0.08	125	17.4	29	1.527	7.17	144.2	20.9	
1001	16.39	0.19	125	17.3	29	1.536	7.16	140.6	18.9	
1006	16.54	0.15	125	17.8	25	1.533	7.18	139.5	14.5	*Sampled
1011										

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	1.75 gallons			

Comments: Initial flowrate ~ 400mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-17-2024

Well ID: MW-49

Sampler(s): ED P

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 1726 6-17-2024

Note:

Pre-purge Water Elevation: 7.48 (BTIC)

Intake Elevation: 43 (BTIC)

Screened Interval: (37.5-37.5) 37.5-47.5 (BTIC)

TIC Elevation: 187.47 (FT)

Depth of Well: 50.15 (FT)

Final Water Elevation: 7.13 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 86 (°F)

Wind: 9 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1645	9.40		250	13.3	12	0.551	7.32	87.5	305	
1650	9.12	0.28	300	14.9	16	0.582	7.55	56.8	368	
1655	9.19	0.07	300	14.7	14	0.582	7.55	41.1	372	
1659	9.14	0.05	275	15.0	8	0.581	7.56	-4.9	324	
1705	9.10	0.04	250	15.5	7	0.579	7.57	-27.3	294	
1710	9.08	0.02	250	15.6	8	0.579	7.59	-46.7	261	
1715	9.02	0.06	250	16.0	8	0.577	7.60	-58.9	209	
1720	8.98	0.04	250	15.9	8	0.577	7.60	-64.7	179	
1725	8.98		250	15.8	8	0.576	7.63	-68.0	146	*Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 7.5 gallons				

Comments: Initial flowrate ~500 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling (Page of)

Date: 6-17-2024

Well ID: MW-50

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	=	1229 6-17-2024
Flouride		
Sulfate	-	
PCBs	-	

Note

Pre-purge Water Elevation: 1.71 (BTIC)

Intake Elevation: 21 (BTIC)

Screened Interval: 15-25 (BTIC)

TIC Elevation: 177.63 (FT)

Depth of Well: 25 (FT)

Final Water Elevation: 3.62 (BTIC)

Pump used (Circle one): Waterra / (Peristaltic) / Grundfos / Bailer

Temp: 77 (°F)

Wind: 9 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1155	2.81		250	13.5	77	1.718	7.42	-72.9	6.01	
1200	3.00	0.19	200	14.4	16	1.743	7.43	-67.6	2.26	
1205	3.17	0.17	175	15.0	13	1.763	7.43	-69.0	2.44	
1210	3.29	0.12	175	14.7	11	1.767	7.41	-74.5	1.45	
1215	3.40	0.11	175	14.7	10	1.763	7.41	-75.8	1.84	
1220	3.50	0.10	175	14.6	9	1.766	7.42	-78.7	2.19	
1225	3.62		175	14.2	9	1.767	7.43	-80.9	2.18	*Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2.5 gallons

Comments

Initial flowrate ~500 mL/min
- there was water in annulus of well

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-17-2024

Well ID: MW-51

Sampler(s): EDP

Analyte Collected	
FCN	-
Flouride	/
Sulfate	-
PCBs	/

Time/Date: 1350 6-17-2024

Note:

Pre-purge Water Elevation: 12.96 (BTIC)

Intake Elevation: 34 (BTIC)

Screened Interval: 29-39 (BTIC)

TIC Elevation: 185.44 (FT)

Depth of Well: 39 (FT)

Final Water Elevation: 14.51 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 84 (°F)

Wind: 9 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1315	13.61		200	14.8	25	1.229	7.21	-17.7	388	
1320	13.71	0.10	200	13.9	15	1.223	7.26	-23.9	204	
1325	~~13.76~~	0.05	200	~~13.7~~ 13.7	14	1.208	7.06	-25.6	135	
1330	13.88	0.12	200	13.6	16	1.194	7.10	-22.9	118	
1335	13.93	0.05	200	13.7	17	1.183	7.16	-19.5	101	
1340	13.99	0.06	200	13.7	17	1.175	7.18	-17.8	102	
1345	14.03	0.04	200	13.7	18	1.173	7.18	-21.1	107	* sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2 gallons				

Comments:

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-17-2024

Well ID: MW-52

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1053
Flouride	✓	
Sulfate	✓	6-17-2024
PCBs	✓	

(Page of)

Note

Pre-purge Water Elevation: 7.09 (BTIC)

Intake Elevation: 19 (BTIC)

Screened Interval: 13-23 (BTIC)

TIC Elevation: 183.02 (FT)

Depth of Well: 23.1 (FT)

Final Water Elevation: 17.1 (BTIC)

Pump used (Circle one)

Waterra (Peristaltic) Grundfos Bailer

Temp: 72 (°F)

Wind: 8 (mph) Direction: SSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1017	8.98		~~EDP 2.4~~ 250	17.4	51	1.473	7.27	-59.4	4.80	
1022	10.91	1.93	200	13.8	51	1.475	7.28	-58.7	1.78	
1027	12.21	1.30	150	14.2	22	1.483	7.28	-71.7	1.32	
1032	13.22	1.01	150	14.3	16	1.480	7.28	-70.3	1.57	
1037	13.49	0.27	150	14.4	13	1.478	7.28	-71.1	~~3.9~~ 4.61	EDP
1042	14.12	0.63	150	14.5	13	1.471	7.28	-76.6	2.39	
1047	14.71	0.59	150	14.7	12	1.396	7.29	~~-97.1~~	2.38	ORP=79.1 EDP
1052	15.45	0.74	150	14.7	13	1.392	7.42	-71.2	4.48	* Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2 gallons

Comments

Initial flowrate ~400 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-17-2024

Well ID: MW-54

Sampler(s): EDP

Analyte Collected	
FCN	-
Flouride	-
Sulfate	-
PCBs	-

Time/Date: 1610 6-17-2024

Note:

Pre-purge Water Elevation: ~~47~~ 25.57 (BTIC)

Intake Elevation: ~~42~~ 42 (BTIC)

Screened Interval: 35-45 (BTIC)

TIC Elevation: 184.87 (FT)

Depth of Well: 47.9 (FT)

Final Water Elevation: 26.65 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 84 (°F)

Wind: 10 (mph) Direction: WSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1537	26.38		250	15.1	34	0.711	~~7~~.69	73.9	104	
1542	26.62	0.24	300	15.4	25	0.734	7.74	73.8	51.8	
1547	26.55	0.07	100	15.9	21	0.722	7.79	71.8	44.1	
1552	26.49	0.06	100	20.3	24	0.735	7.82	81.3	42.1	
1557	26.51	0.02	100	19.9	23	0.741	7.80	85.6	40.0	
1602	26.52	0.01	100	19.8	21	0.742	7.80	85.2	37.4	
1607	26.57	0.05	100	19.2	19	0.743	7.80	81.6	33.2	*Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments

Initial flowrate ~500 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-18-2024

Well ID: MW-55

Sampler(s): EDF

Analyte Collected	
FCN	✓
PCBs	✓

Time/Date: 0847 6-18-2024

(Page of)

Note

Pre-purge Water Elevation: 16.13 (BTIC)

Intake Elevation: 26 (BTIC)

Screened Interval: 15-30 (BTIC)

TIC Elevation: 176.53 (FT)

Depth of Well: 32.97 (FT)

Final Water Elevation: 17.88 (BTIC)

Pump used (Circle one): (Waterra) Peristaltic Grundfos Bailer

Temp: 75 (°F)

Wind: 6 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0812	18.23		150	13.7	~~13~~ 14	1.091	6.94	-31.1	117	
0817	18.14	0.09	175	17.9	14	1.118	6.99	-35.6	123	
0822	18.18	0.04	200	17.0	16	1.102	7.01	-38.0	115	
0827	18.26	0.08	200	16.6	13	1.092	7.02	-41.9	120	
0832	18.28	0.02	175	16.8	13	1.085	7.04	-42.8	106	
0837	18.29	0.01	175	16.8	14	1.084	7.05	-43.6	101	
0842	18.30	0.01	175	16.8	13	1.082	7.06	-44.0	84.3	* Sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				

Volume Purged: 2 gallons

Comments: Initial flowrate ~550 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-11-2024

Well ID: MW-56

Sampler(s): EDI

Analyte Collected		Time/Date
FCN	✓	6-11-2024 1132
Fluoride	✓	
Sulfate	✓	

(Page of)

Note

Pre-purge Water Elevation: 5.8 (BTIC)

Intake Elevation: 19 (BTIC)

Screened Interval: 15-25 (BTIC)

TIC Elevation: 239.42 (FT)

Depth of Well: 25 (FT)

Final Water Elevation: 10.08 (BTIC)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 57 (°F)

Wind: 5 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1034	7.59	~~7.59~~	150	12.2	89	0.905	8.60	65.7	41.6	
1039	7.83	~~7.83~~	150	12.7	88	1.304	7.08	-14.5	99.4	
1044	8.43	~~8.43~~	150	12.3	83	1.334	7.05	-29.6	11.0	
1049	9.01	~~9.01~~	150	12.2	78	1.334	7.07	-36.8	10.9	
1054	9.23	0.22	150	12.2	76	1.331	7.07	-39.3	10.9	
1059	9.37	0.14	125	12.5	73	1.361	7.06	-38.7	97.0	
1104	9.52	0.15	125	13.0	69	1.373	7.05	-36.7	72.4	Pump shut down
1109	9.78	0.26	150	12.0	69	1.376	7.04	-41.8	51.3	
1114	9.93	0.15	125	12.3	65	1.352	7.08	-40.2	36.9	
1119	10.48	0.55	125	12.3	64	1.322	7.08	-40.5	28.3	
1124	10.51	0.03	125	11.9	62	1.300	7.10	-43.7	23.2	
1129	10.09	0.52	125	11.9	61	1.299	7.11	-44.1	19.8	
1134	10.07	0.02	125	12.4	60	1.307	7.11	-35.6	17.6	
1139	10.08	0.01	125	12.5	58	1.299	7.10	-35.7	17.8	*sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.75 gallons				

Comments

Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-11-24

Well ID: PZ-44

Sampler(s): BL

Analyte Collected		Time/Date
FCN	✓	0851 6-11-24
Flouride	✓	
Sulfate	✓	
PCBs	✓	

(Page of)

Note: Grab

Pre-purge Water Elevation: 4.95 (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: 225 (GL) (FT)

Depth of Well: 16.69 (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one): Waterra, Peristaltic, Grundfos, Bailer

Temp: 54 (°F)

Wind: 5 (mph) Direction: W

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0851	4.95	—	—	14.2	19.8	2.453	7.08	-83.4	4.0	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling (Page of)

Date: 6-11-24

Well ID: PZ-45

Sampler(s): BC

Analyte Collected		Time/Date	Note
FCN	✓	6-11-24 0915	Grab
Flouride	✓		
Sulfate	✓		
PCBs	✓		

Pre-purge Water Elevation: 6.65 (BTIC)

Intake Elevation: (BTIC)

Final Water Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: 223.2 (GL) (FT)

Depth of Well: 14.83 (FT)

Pump used (Circle one): Waterra, (Peristaltic), Grundfos, Bailer

Temp: 54 (°F)

Wind: 5 (mph) Direction: W

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0915	6.65	—	—	15.3	26.2	2.309	7.09	-54.5	16.5	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-11-24

Well ID: PZ-46

Sampler(s): BC

Analyte Collected		Time/Date	Note
FCN	✓	6-11-24 0955	Grab
Flouride	✓		
Sulfate	✓		No PCR
PCBs			

Pre-purge Water Elevation: 7.95 (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: 223.2 (GL) (FT)

Depth of Well: 10.37 (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one): Waterra | Peristaltic | Grundfos | Bailer

Temp: 55 (°F)

Wind: 5 (mph) Direction: W

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0955	7.95	–	–	16.9	40.2	2.273	7.17	28.6	185	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

Date: 6-10-2024

Well ID: SLPWETW

Sampler(s): EDP

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓
PCBs	✓

Time/Date: 6-10-24 1246

(Page of)

Note

Pre-purge Water Elevation: (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one)

Waterra Peristaltic Grundfos Bailer

Temp: (°F)

Wind: (mph) Direction:

YSI #:

Turbiditymeter #:

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1243			200	17.0	54	0.2337	7.07	251.6	2.06	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-10-2024

Well ID: SLPWETE

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1553
Flouride	✓	6-10-2024
Sulfate	✓	
PCBs	✓	

Note

Pre-purge Water Elevation: (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one)

Waterra (Peristaltic) Grundfos Bailer

Temp: 59 (°F)

Wind: 9 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
01549			200	18.9	86	0.3462	8.68	162.6	7.09	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged:

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds June Groundwater Sampling

(Page of)

Date: 6-11-24

Well ID: FDRAIN

Sampler(s): BC

Analyte Collected	
FCN	✓
Flouride	✓
Sulfate	✓

Time/Date: 0830 6-11-24

Note: Grab

Pre-purge Water Elevation: 17.61 (BTIC)

Intake Elevation: — (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: (BTIC)

Pump used (Circle one): Waterra / Peristaltic / Grundfos / Bailer

Temp: 54 (°F)

Wind: 5 (mph) Direction: W

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0830	17.61	—	—	12.2	52.5	0.930	8.14	256.1	0.02	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:	NA			

Comments

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 41 Hollowland Rd
Suite 2 Massena, NY 13662
Phone: (315) 796-9003
Fax:
Email: glosenger jc@cdmsmith.com

Project Information

Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116927
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ **Done**
☐ **Lab to do**
Preservation
☐ **Lab to do**
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCBs	Fluoride Sulfate							Sample Specific Comments	Total Bottle
	MW-405-0624	6/10/24	1706	water	EDP	x	x								
	MW-415-0624	6/10/24	1577	water	EDP	x	x								
	MW-395-0624	6/10/24	1443	water	EDP	x	x								
	SLPWFTW-0624	6/10/24	1246	water	EDP	x	x								
	SLPWFIE-0624	6/10/24	1553	water	EDP	x	x								
	MW-305-0624	6/10/24	1125	water	JCG	x	x								
	MW-1415-0624	6/10/24	1450	water	JCG	x	x								
	MW-1705 [illegible]-0624FD	6/10/24	1459	water	JCG	x	x								
	MW-1203-0624FSW	6/10/24	1440	water	JCG	x	x								

Container Type
Preservative

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Basil Pot	6-11-24 1500		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

Page of

Date Rec'd in Lab

ALPHA Job #

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Client Information
Client: CDM Smith
Address: 4 Highland Rd
Suite 2 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: glosenger jc@cdmsmith.com

Project Information
Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride	Sulfate	PCB						Sample Specific Comments	Total Bottle
	MW-23-855-0624	6-11-24	1210	water	DP	X	X	X							
	MW-135-0624	6-11-24	1000	water	JB	X	X	X							
	MW-315R-0624	6-11-24	0930	water	JB	X	X	X							
	MW-44-0624	6-11-24	0955	water	JB	X	X	X							
	MW-1209-0624 FBW	6-12-24	1012	water	JB	X	X	X							
	MW-285-0624	6-11-24	1130	water	JB	X	X	X							
	MW-263-0624	6-11-24	1440	water	JB	X	X	X							
	MW-20-855-0624	6-12-24	0904	water	DP	X	X	X							
	MW-155-87-0624	6-11-24	1436	water	DP	X	X	X							
	MW-125-0624	6-12-24	0931	water	DP	X	X	X							

Container Type
Preservative

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Basil Corey	6-12-24 1430		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab

ALPHA Job #

Client Information
Client: CDM Smith
Address: 4 Highland Rd
Suite 2 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: glosenger jc@cdmsmith.com

Project Information
Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride	Sulfate	PCB						Sample Specific Comments
	FDRNIN-0624	6-11-24	0830	water	BC	X								
	MW-115R-0624	6-11-24	1155	water	BC	X	X	X						
	MW-120S-0624 MS	6-11-24	1200	water	BC	X	X	X						
	PZ-46S-0624	6-11-24	0955	water	BC	X	X							
	PZ-45-0624	6-11-24	0915	water	BC	X	X	X						
	PZ-44-0624	6-11-24	0851	water	BC	X	X	X						
	MW-105-0624	6-11-24	0913	water	DP	X	X	X						
	MW-105-0624 MS	6-11-24	0913	water	DP	X	X	X						
	MW-105-0624 MSD	6-11-24	0913	water	DP	X	X	X						
	MW-56S-0624	6-11-24	@1132	water	DP	X	X							

ALPHA

NEW YORK CHAIN OF CUSTODY

Page of

Date Rec'd in Lab

ALPHA Job #

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Client Information
Client: CDM Smith
Address: 4 Highland Rd
Suite 2 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: glosenger jc@cdmsmith.com

Project Information
Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride	Sulfate	TCB						Sample Specific Comments
	MW-1208-0624 FBLW	6-11-24	1300	water	JG	X	X	X						
	MW-125-0624 MS	6-12-24	0931	water	DP	X	X	X						
	MW-125-0624 MSD	6-12-24	0931	water	DP	X	X	X						

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type														
Preservative														

Relinquished By:	Date/Time	Received By:	Date/Time
Basil Cox	6-12-24 1430		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page of

Date Rec'd in Lab

ALPHA Job #

Client Information
Client: CDM Smith
Address: 4 Highland Rd
Suite 2 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: gloseng erjc@cdmsmith.com

Project Information
Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☐ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride	Sulfate	PCB						Sample Specific Comments
	MW-175-0624	6-12-24	1409	water	DP	x	x	x						
	MW-195-0624	6-13-24	0952	water	BR	x	x	x						
	MW-41-0624	6-12-24	1639	water	DP	x	x	x						
	MW-42-0624	6-12-24	1600	water	JG	x	x	x						
	MW-43-0624	6-12-24	1140	water	JG	x	x	x						
	MW-355R-0624	6-12-24	1418	water	JG	x	x	x						

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type
Preservative

Relinquished By:	Date/Time	Received By:	Date/Time
Basil Cox	6-13-24 1430		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Daniel Posadas	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-102939-18522.2
Client Contact: Joshua Glosenger	Phone: 315-296-9006	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin:	Page: Page 2 of 7
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested: 6-24-2024			
City: Massena	TAT Requested (days): 10 Days			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116493			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #: 18026950			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
~~MW-16S-0624~~ MW-16S-D624	6-11-24	1132	G	Water			X		
~~MW-17S-0624~~ MW-10S-0624	6-11-24	0913	G	Water	Y		X		
~~MW-18S-0624~~ MW-10S-D624MS	6-11-24	0913	G	Water	Y		X		
~~MW-19S-0624~~ MW-10S-D624MSD	6-11-24	0913	G	Water	Y		X		
~~MW-20-85S-0624~~ PZ-44-D624	6-11-24	0851	G	Water			X		
~~MW-22-85S-0624~~ PZ-45-D624	6-11-24	0915	G	Water			X		
MW-23-85S-0624	6-11-24	1210	G	Water			X		
~~MW-26S-0624~~ PZ-46-D624	6-11-24	0955	G	Water			X		
~~MW-27S-0624~~ MW-11SR-D624	6-11-24	1155	G	Water			X		
~~MW-28S-0624~~ MW-1206-D624BD	6-11-24	1200	G	Water			X		
~~MW-30S-0624~~ F-DRAIN-D624	6-11-24	0830	G	Water			X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Basil Coy	6-11-24 1545	CDM			
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2514382

Cooler Temperature(s) °C and Other Remarks:

COC Checked JCG 6/14/24

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Rd
Suite 2 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: glosenger jc@cdmsmith.com

Project Information

Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCBs	Fluoride, Sulfate	Sample Filtration	Total Bottle
	MW-121-0624FBW	6/14/24	0815	water	BC	X	X	☐ Done ☐ Lab to do	
	MW-115R-0624	6/11/24	1155	water	BC	X		Preservation ☐ Lab to do	
								(Please Specify below)	
								Sample Specific Comments	

Container Type: A P
Preservative: A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Brad Brooks	6/14/24 1000		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

COC checked JCG 6/14/24

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab:

ALPHA Job #:

Client Information
Client: CDM Smith
Address: 4 Highland Rd
Suite 2 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: glosenger jc@cdmsmith.com

Project Information
Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116497
(Use Project name as Project #)
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: PCBs	ANALYSIS: Florida, Sulfate	Sample Specific Comments
	MW-36-0624	6/13/24	1250	water	JCG	X	X	
	MW-36-0624 MS	6/13/24	1250	water	JCG	X	X	
	MW-36-0624 MSD	6/13/24	1250	water	JCG	X	X	
	MW-37-0624	6/13/24	1428	water	EDP	X	X	
	MW-1219-0624 BD	6/13/24	1459	water	EDP	X	X	
	MW-1210-0624 FBW	6/13/24	1350	water	JCG	X	X	
	~~MW-345-0624~~ EDP	—	—	—	—			
	MW-38-0624	6/14/24	0913	water	EDP	X	X	No Sample
	MW-035-0624	6/14/24	0759	water	BC	X	X	
	MW-275-0624	6/14/24	0823	water	BC	X	X	

Container Type: A P
Preservative: A A

Total Bottle

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	6/14/24 1000		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information
Client: CDM Smith
Address: 4 Highland Rd
Suite 1 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: gloesenger jc@cdmsmith.com

Project Information
Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride	Sulfate	PCB	Sample Filtration / Preservation	Total Bottle	Sample Specific Comments
	MW-165-0624	6-15-24	0825	water	JG	x	x	x	☐ Done ☐ Lab to do / ☐ Lab to do		
	MW-185-0624	6-15-24	0832	water	DP	x	x	x			
	MW-1212-0624 FB	6-15-24	0835	water	JG	x	x	x			

Container Type
Preservative

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Basil Cox	6-17-24 1400		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

J. Glosenger COC check 6/18/24

NEW YORK CHAIN OF CUSTODY

ALPHA Analytical

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab:

ALPHA Job #:

Client Information
Client: CDM Smith
Address: 4 Highland Rd
Suite 2 Massena, NY 13662
Phone: (315) 296-9003
Fax:
Email: glosengerjc@cdmsmith.com

Project Information
Project Name: Reynolds Groundwater Sampling
Project Location: Reynolds facility
Project #: 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCBs	Florida, Sulfate	Sample Specific Comments
	MW-22-75S-0624	6/17/24	0935	water	EDP	x	x	
	MW-52-0624	6/17/24	1053	water	EDP	x	x	
	MW-50-0624	6/17/24	1229	water	EDP	x	x	
	MW-51-0624	6/17/24	1350	water	EDP	x	x	
	MW-54-0624	6/17/24	1610	water	EDP	x	x	
	MW-49-0624	6/17/24	1726	water	EDP	x	x	
	MW-1213-0624 FBW	6/17/24	0956	water	EDP	x	x	
	MW-55-0624	6/18/24	0847	water	EDP	x		
	MW-48-0624	6/18/24	1012	water	EDP	x	x	
	MW-1214-0624 FBW	6/18/24	1044	water	EDP	x	x	

Container Type	A	P											
Preservative	A	A											

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Phil Prata	6/18/2024 1300		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Daniel Posadas	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-102939-18522.1
Client Contact: Joshua Glosenger	Phone: (315) 296-9006	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin:	Page: Page 1 of 7
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested: 6/24/2024			
City: Massena	TAT Requested (days): 10 days			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116493			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #: 18026950			
Site:	SSOW#:			

Analysis Requested

Preservation Codes: N - None; Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
~~MW-03S-0624~~ MW-40S-0624	6/10/24	1706	G	Water			X		
~~MW-10S-0624~~ MW-45-0624	6/10/24	1522	G	Water			X		
~~MW-10S-0624-MS~~ MW-39S-0624	6/10/24	1403	G	Water			X		
~~MW-10S-0624-MSD~~ SLPWETW-0624	6/10/24	1246	G	Water			X		
~~MW-11SR-0624~~ SLPWETE-0624	6/10/24	1553	G	Water			X		
~~MW-12S-0624~~ MW-30S-0624	6/10/24	1125	G	Water			X		
~~MW-12S-0624-MS~~ MW-14S-0624	6/10/24	1450	G	Water			X		
~~MW-12S-0624-MSD~~ MW-1205-0624 BD	6/10/24	1459	G	Water			X		
~~MW-13S-0624~~ MW-1207-0624 FBW	6/10/24	1440	G	Water			X		
~~MW-14S-0624~~ MW-31SR-0624	6-11-24	0930	G	Water			X		
~~MW-15S-87-0624~~ MW-13S-0624	6-11-24	1000	G	Water			X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Basil Cox	6-11-24 1545	CDM			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2571382

Cooler Temperature(s) °C and Other Remarks:

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Daniel Posadas	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-102939-18522.6
Client Contact: Joshua Glosenger	Phone: 315-294-9006	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin:	Page: Page 6 of 7
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested: 6-24-2024	Analysis Requested		Preservation Codes: N - None
City: Massena	TAT Requested (days): 10 Days			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116493			
Email: glosengerjc@cdmsmith.com	WO #:			Other:
Project Name: Reynolds Facility	Project #: 18026950			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
~~MW-1208-0624FBW~~ MW-175-0624	6-12-24	1409	G	Water			X		
~~MW-1209-0624FBW~~ MW-195-0624	6-13-24	0952	G	Water			X		
~~MW-1210-0624FBW~~ MW-41-0624	6-12-24	1639	G	Water			X		
~~MW-1211-0624FBW~~ MW-42-0624	6-12-24	1600	G	Water			X		
~~MW-1212-0624FBW~~ MW-355R-0624	6-12-24	1418	G	Water			X		
~~MW-1213-0624FBW~~ MW-43-0624	6-12-24	1140	G	Water			X		
~~MW-1214-0624FBW~~				Water					
~~MW-1215-0624FBW~~				Water					
~~MW-1216-0624FBW~~				Water					
~~MW-1217-0624FBW~~				Water					
~~MW-1218-0624FBW~~				Water					

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Basil Cof	Date/Time: 6-13-24 1430	Company CDM	Received by: / Date/Time: / Company
Relinquished by:	Date/Time:	Company	Received by: / Date/Time: / Company
Relinquished by:	Date/Time:	Company	Received by: / Date/Time: / Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2514385

Cooler Temperature(s) °C and Other Remarks:

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Daniel Posadas	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-102939-18522.7
Client Contact: Joshua Glosenger	Phone: 315-296-9006	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin:	Page: Page 7 of 7
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested: 6-24-2024	Analysis Requested		Preservation Codes: N - None
City: Massena	TAT Requested (days): 10 days			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116493			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #: 18026950			
Site:	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-165-D6024	6-15-24	0825	G	Water			X		
MW-185-D6024	6-15-24	0832	G	Water			X		
MW-1212-D6024 FBW	6-15-24	0835	G				X		

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

Deliverable Requested: I, II, III, IV, Other (specify)

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

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Brad Cox	Date/Time: 6-17-24 1400	Company: CDM	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 1769314

Cooler Temperature(s) °C and Other Remarks:

Posadas-Milla, Ever D.

From: Glosenger, Joshua C.
Sent: Tuesday, August 13, 2024 9:57 AM
To: Candace Fox; James Conley; NYServiceCenter
Cc: Kingsley, Ryan; Rielly, Alison; Cox, Basil; Posadas-Milla, Ever D.; Mibroda, Jason
Subject: Reynolds Groundwater Sampling (Alpha) - September 2024

Good morning,

CDM Smith is scheduled to collect groundwater samples at the Reynolds facility during the month of September 2024. All fluoride, sulfate, and PCB samples will be shipped to Alpha Analytical in Westborough, MA for analysis. The billing number is 116497. Bottle ware will be needed for the following samples to be collected:

Location	Parameter		
	Fluoride	Sulfate	PCBs
MW-10S-0924	X	X	X
MW-10S-0924-MS	X	X	X
MW-10S-0924-MSD	X	X	X
MW-39S-0924	X	X	X
MW-40S-0924	X	X	X
MW-45-0924	X	X	X
SLPWETE-0924	X	X	X
SLPWETW-0924	X	X	X
Sub total	**8**	**8**	**8**
QC/QA Labels			
MW-1219-0924BD	X	X	X
MW-1220-0924FBW	X	X	X
MW-1221-0924FBW	X	X	X
MW-1222-0924FBW	X	X	X
MW-1223-0924FBW	X	X	X
Sub total	**5**	**3**	**3**

Please feel free to contact me with any questions.

Thanks,

Josh Glosenger
Environmental Engineer
CDM Smith
4 Highland Road, Suite 1, Massena, New York 13662
Office: 315.296.9003 Cell: 607.239.3964
cdmsmith.com

CDM Smith

Posadas-Milla, Ever D.

From: Glosenger, Joshua C.
Sent: Tuesday, August 13, 2024 9:57 AM
To: Andy.Johnson@et.eurofinsus.com; mike.movinski@eurofinset.com; Brian.O'Donnell@et.eurofinsus.com; brainfischer@et.eurofinsus.com
Cc: Kingsley, Ryan; Rielly, Alison; Cox, Basil; Posadas-Milla, Ever D.; Mibroda, Jason
Subject: Reynolds Groundwater Sampling (Eurofins) - September 2024

Good morning,

CDM Smith is scheduled to collect groundwater samples at the Reynolds facility during the month of September 2024. All Free Cyanide samples will be shipped to Eurofins Pittsburgh, PA for analysis.

The billing number is 116498. Bottle ware will be needed for the following samples to be collected:

Bottle check

Location	Parameter
	Free Cyanide
MW-10S-0924	X
MW-10S-0924-MS	X
MW-10S-0924-MSD	X
MW-39S-0924	X
MW-40S-0924	X
MW-45-0924	X
SLPWETE-0924	X
SLPWETW-0924	X
Sub total	**8**
QC/QA Labels	
MW-1219-0924BD	X
MW-1220-0924FBW	X
MW-1221-0924FBW	X
MW-1222-0924FBW	X
MW-1223-0924FBW	X
Sub total	**5**

Please feel free to contact me with any questions.

Thanks,

Josh Glosenger
Environmental Engineer
CDM Smith
4 Highland Road, Suite 1, Massena, New York 13662
Office: 315.296.9003 Cell: 607.239.3964
cdmsmith.com

CDM Smith
listen. think. deliver.

Project: Reynolds Spetember Groundwater Sampling (Page of)

Date: 9/16/24

Well ID: MW-10S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN		1423 9/16/24
Flouride		
Sulfate		
PCBs		

Note: MS/MSD

Pre-purge Water Elevation: 8.08 (BTIC)

Intake Elevation: 17 (BTIC)

Screened Interval: 12.5-22.5 (BTIC)

TIC Elevation: 216.65 (FT)

Depth of Well: 23.36 (FT)

Final Water Elevation: 15.51 (BTIC)

Pump used (Circle one): Waterra, Peristaltic, Grundfos, Bailer

Temp: 87 (°F)

Wind: 5 (mph) Direction: WSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	~~< 0.3 foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
1327	11.37		300	17.0	48	0.818	7.06	204.8	6.10	
1331	12.77		225	18.0	45	0.821	7.09	197.7	4.73	
1335	13.22		225	18.1	48	0.824	7.09	193.9	4.10	
1338	13.78		200	18.4	51	0.818	7.13	188.8	3.72	
1343	13.84		200	18.7	48	0.828	7.11	185.2	2.53	
1347	13.83		200	18.4	48	0.827	7.13	181.3	2.56	
1352	13.83		200	18.9	44	0.824	7.12	177.8	2.85	
1356	13.83		200	18.6	45	0.830	7.11	174.8	3.47	
1400	13.85		200	18.5	38	0.833	7.10	171.8	3.07	
1404	14.01		200	18.6	36	0.833	7.11	169.7	3.33	
1407	14.14		200	18.5	37	0.834	7.11	168.4	2.46	
1410	14.31		200	18.7	38	0.837	7.11	167.9	2.55	
1413	14.39		200	18.7	38	0.834	7.11	166.7	0.28	* sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 3.25 gallons

Comments: Initial flowrate ~450mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds Spetember Groundwater Sampling (Page of)

Date: 9/16/24

Well ID: MW-39S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	/	1633 9/16/24
Flouride	/	
Sulfate	/	
PCBs	/	

Note: 1219BD collected at 1701

Pre-purge Water Elevation: 4.32 (BTIC)

Intake Elevation: 16 (BTIC)

Screened Interval: 10.95-20.95 (BTIC)

TIC Elevation: 195.87 (FT)

Depth of Well: 20.93 (FT)

Final Water Elevation: 7.96 (BTIC)

Pump used (Circle one): Waterra, Peristaltic, Grundfos, Bailer

Temp: 73 (°F)

Wind: 5 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1545	7.86		300	16.3	33	0.900	6.96	-4.3	2.40	
1549	8.17		225	17.3	31	0.889	6.84	-56.0	2.69	
1553	8.26		225	17.6	28	0.878	6.79	-61.7	2.59	
1557	8.14		150	18.0	27	0.874	6.79	-58.7	2.79	
1601	8.03		150	18.3	25	0.889	6.76	-56.9	3.13	
1605	7.99		150	18.1	24	0.897	6.73	-57.2	3.16	
1609	7.96		150	17.8	22	0.906	6.73	-57.4	2.96	
1613	7.94		150	17.8	22	0.916	6.72	-57.2	2.95	
1617	7.94		150	17.8	21	0.921	6.70	-57.3	3.11	*sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.25 gallons				

Comments: Initial flowrate ~475 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds Spetember Groundwater Sampling (Page of)

Date: 9/17/24

Well ID: MW-40S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN ✓		0919
Flouride ✓		9/17/24
Sulfate ✓		
PCBs ✓		

Note:

Pre-purge Water Elevation: 2.13 (BTIC)

Intake Elevation: 10 (BTIC)

Screened Interval: 9.94-19.94 needs revision (BTIC)

TIC Elevation: 193.75 (FT)

Depth of Well: 12.00 (FT)

Final Water Elevation: 7.41 (BTIC)

Pump used (Circle one): Waterra / Peristaltic / Grundfos / Bailer

Temp: 64 (°F)

Wind: 4 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0839	5.12		250	14.0	35	1.129	7.15	22.8	1.88	
0843	5.64		200	14.8	31	1.128	7.22	29.3	2.45	
0848	6.32		200	15.0	26	1.128	7.23	31.8	0.67	
0852	6.61		175	15.3	21	1.128	7.23	29.2	0.92	
0857	6.89		175	15.5	19	1.130	7.21	29.5	0.02	
0901	6.98		150	15.7	17	1.129	7.21	33.5	0.02	
0905	7.03		150	16.0	16	1.128	7.22	43.9	0.02	
0909	7.11		150	16.1	15	1.128	7.21	49.2	0.02	
0913	7.13		150	16.2	15	1.131	7.20	51.4	0.02	* sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: 2.5 gallons

Comments

Initial flowrate ~450 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds Spetember Groundwater Sampling (Page of)

Date: 9/16/24

Well ID: MW-45

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1802
Flouride	✓	9/16/24
Sulfate	✓	
PCBs	✓	

Note: 1220 EBW at 1842

Pre-purge Water Elevation: 4.09 (BTIC)

Intake Elevation: 14 (BTIC)

Screened Interval: 7-17 (BTIC)

TIC Elevation: 195.83 (FT)

Depth of Well: 17.73 (FT)

Final Water Elevation: 7.63 (BTIC)

Pump used (Circle one): Waterra / Peristaltic / Grundfos / Bailer

Temp: 80 (°F)

Wind: 3 (mph) Direction: W

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1722	7.49		350	15.3	75	1.560	6.74	12.4	2.70	
1727	8.01		250	16.1	72	1.577	6.69	110.8	3.47	
1731	7.93		200	16.4	70	1.590	6.68	134.5	2.24	
1735	7.78		200	16.4	67	1.614	6.65	84.0	3.21	
1739	7.73		200	16.1	65	1.639	6.63	46.5	2.90	
1743	7.67		200	16.1	63	1.655	6.62	79.0	2.97	
1748	7.61		200	16.1	61	1.671	6.60	19.2	2.65	
1752	7.56		200	16.0	59	1.685	6.58	14.9	1.21	
1755	7.48		200	16.0	59	1.690	6.57	12.7	1.66	*sampled

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged: 2.75 gallons				

Comments: Initial flowrate ~600mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds Spetember Groundwater Sampling (Page of)

Date: 9/17/24

Well ID: SLPWETE

Sampler(s): EDP

Analyte Collected		Time/Date
FCN ✓		0944 9/17/24
Flouride ✓		
Sulfate ✓		
PCBs ✓		

Note: Crab ~~30~~ 1 FBW collected @ 1007

Pre-purge Water Elevation: — (BTIC)

Intake Elevation: — (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: ✓ (BTIC)

Pump used (Circle one): Waterra Peristaltic Grundfos Bailer

Temp: 69 (°F)

Wind: 3 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0951	✓	—	—	23.7	45	0.4744	7.67	189.0	1.24	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: —

Comments

CDM Smith

listen. think. deliver.

Project: Reynolds Spetember Groundwater Sampling (Page of)

Date: 9/17/24

Well ID: SLPWETW

Sampler(s): CDP

Analyte Collected		Time/Date
FCN ✓		1030
Flouride ✓		9/17/24
Sulfate ✓		
PCBs ✓		

Note: Grab

Pre-purge Water Elevation: – (BTIC)

Intake Elevation: – (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: – (BTIC)

Pump used (Circle one): Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 72 (°F)

Wind: 3 (mph) Direction: WSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1036	–	–	–	22.1	25	0.1858	7.05	150.7	0.93	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged: –

Comments

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab:

ALPHA Job #:

Client Information
Client: CDM Smith
Address: 4 Highland Rd Suite 1
Massena, NY 13662
Phone: 315 296 9006
Fax:
Email: posadasmilla ed@cdmsmith.com

Project Information
Project Name: Reynolds September GW Sampling
Project Location: Reynolds Facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	F-300, SO4	NY TCL-8082	Total Bottle	Sample Specific Comments
	MW-10S-0924	9/16/24	1423	water	EDP	x	x		
	MW-10S-0924-MS	9/16/24	1423	water	EDP	x	x		
	MW-10S-0924-MSD	9/16/24	1423	water	EDP	x	x		
	MW-39S-0924	9/16/24	1633	water	EDP	x	x		
	MW-1219-0924BD	9/16/24	1701	water	EDP	x	x		
	MW-45-0924	9/16/24	1802	water	EDP	x	x		
	MW-40S-0924	9/17/24	0919	water	EDP	x	x		
	MW-1220-0924FBW	9/16/24	1842	water	EDP	x	x		
	MW-1221-0924FBW	9/17/24	1007	water	EDP	x	x		
	SLPWETE-0924	9/17/24	0944	water	EDP	x	x		
					Container Type	P	A		
					Preservative	A	A		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Posadas	9/17/24 1500		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab

ALPHA Job #

Client Information
Client: CDM Smith
Address: 4 Highland Rd Suite 1
Massena, NY 13662
Phone: 315 296 9006
Fax:
Email: posadasmilla.ed@cdmsmith.com

Project Information
Project Name: Reynolds September GW Sampling
Project Location: Reynolds Facility
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	F-300, SO_4	NY TCL-8082	Total Bottle	Sample Specific Comments
	SLPWETW-0924	9/17/24	1030	water	EDP	X	X		

Container Type: P A
Preservative: A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Posadas	9/17/24 1300		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Daniel Posadas	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No: 180-104863-18078.1
Client Contact: Joshua Glosenger	Phone: 315 296 9006	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 1
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116498			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: EDP ~~Reynolds Facility~~ Reynolds September GW Sampling	Project #: 18026950			
Site: Reynolds Facility	SSOW#:			

Analysis Requested

Preservation Codes: N - None

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-10S-0924	9/16/24	1423	G	Water			X		
MW-10S-0924-MS	9/16/24	1423	G	Water		X	X		
MW-10S-0924-MSD	9/16/24	1423	G	Water		X	X		
MW-39S-0924	9/16/24	1633	G	Water			X		
MW-40S-0924	9/17/24	0989	G	Water			X		
MW-45-0924	9/16/24	1802	G	Water			X		
SLPWETE-0924	9/17/24	0944	G	Water			X		
SLPWETW-0924	9/17/24	1030	G	Water			X		
MW-1219-0924BD	9/16/24	1701	G	Water			X		
MW-1220-0924FBW	9/16/24	1842	G	Water			X		
MW-1221-0924FBW	9/17/24	0944	G	Water			X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	9/17/24 1300				
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2538292

Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

Pre-sampling Checklist

Sampling Event: Reynolds Quarterly Sampling **Checked by:** Dan Posadas
Date Checked: 9/16/24

This checklist to be completed and submitted with sampling documentation.

Items	Is the item accounted for?	Is more of this Item needed?	If more of any item needs to be ordered, how much?
	Y/N - NA	Y/N - NA	Describe individually
Nitrile gloves	Y		
Clipboard	Y		
Field sheets	Y		
Sampling Email	Y		
COCs	Y		
COC plastic bag	Y		
Pen/markers	Y		
Blank lables	Y		
Bottles/lables	Y		
Coolers	Y		
Water tape	Y		
Peristaltic pump	Y		
Extra peristaltic battery	Y		
YSI	Y		
Extra YSI battery	Y		
Turbidimeter	Y		
Extra Turbidimeter battery	Y		
Waterra pump	NA		
Flex tubing	Y		
HDPE tubing	Y		
Purge bucket	Y		
Generator	NA		
Extention cord	NA		
Gasoline	NA		
Sampling kit	Y		
Tubing cutters	Y		
DI water	Y		
Graduated cylinder			
(Optional)			
Foldout table	NA		
Ice Packs (warm weather)	NA		
Canopy	NA		

Are any sampling supplies needed (tubing, foot valves, meters)?	Y	(N)
Is there enough calibration solution to complete the sampling event?	(Y)	N
If No, what solution is needed?		
Is all powered equipment in working condition?	(Y)	N
Has the project manager been notified verbally and in writing?	(Y)	N

Pre-sampling Checklist

Sampling Event: Reynolds
Date Checked: 9/17/24

Checked by: Dan Posadas

This checklist to be completed and submitted with sampling documentation.

Items	Is the item accounted for?	Is more of this Item needed?	If more of any item needs to be ordered, how much?
	Y/N - NA	Y/N - NA	Describe individually
Nitrile gloves	Y		
Clipboard	Y		
Field sheets	Y		
Sampling Email	Y		
COCs	Y		
COC plastic bag	Y		
Pen/markers	Y		
Blank lables	Y		
Bottles/lables	Y		
Coolers	Y		
Water tape	Y		
Peristaltic pump	Y		
Extra peristaltic battery	Y		
YSI	Y		
Extra YSI battery	Y		
Turbidimeter	Y		
Extra Turbidimeter battery	Y		
Waterra pump	NA		
Flex tubing	Y		
HDPE tubing	Y		
Purge bucket	Y		
Generator	NA		
Extention cord	NA		
Gasoline	NA		
Sampling kit	Y		
Tubing cutters	Y		
DI water	Y		
Graduated cylinder	Y		
(Optional)			
Foldout table	NA		
Ice Packs (warm weather)	NA		
Canopy	NA		

Are any sampling supplies needed (tubing, foot valves, meters)?	Y	(N)
Is there enough calibration solution to complete the sampling event?	(Y)	N
If No, what solution is needed?		
Is all powered equipment in working condition?	(Y)	N
Has the project manager been notified verbally and in writing?	(Y)	N

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-11-24

Well ID: MW-03S

Sampler(s): BC

Analyte Collected		Time/Date
FCN		1120 12-13-24
Fluoride		
Sulfate		
PCBs		

Note

Pre-purge Water Elevation: 7.21 (BTIC)

Intake Elevation: 17 (BTIC)

Screened Interval: 12-22 (BTIC)

TIC Elevation: 227.2 (FT)

Depth of Well: 22.71 (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 36 (°F)

Wind: 5-10 (mph) Direction: NW

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	< 0.3 foot	± 3 %	± 10 %	±10 mV	± 10 %	
1315	8.84		150	11.2	73.5	1.226	7.84	230.6	3.6	
1320	9.50		150	11.2	65.0	1.219	7.83	248.6	3.4	
1325	10.26		150	10.7	62.3	1.218	7.84	262.7	4.8	
1330	11.18		125	10.8	59.8	1.195	7.82	268.6	9.92	
1335	12.03		125	10.9	58.2	1.176	7.81	272.2	18.9	
1340	12.89		125	10.7	56.3	1.156	7.81	275.1	25.4	
1345	13.73		100	10.4	56.5	1.159	7.80	276.9	22.9	
12-13-24										
1120	14.50		100	5.2	32.4	1.469	7.81	228.5	12.8	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged (gal):				

Comments

Needs cap and collar
Purge to intake

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-3-24

Well ID: MW-10S

Sampler(s): JC

Analyte Collected		Time/Date
FCN	✓	12-4-24 1100
Fluoride	✓	
Sulfate	✓	
PCBs	✓	

Note: MS/MSD

Pre-purge Water Elevation: 8.26 (BTIC)
Intake Elevation: 19 (BTIC)
Screened Interval: 12.5-22.5 (BTIC)
TIC Elevation: 217.62 (FT)
Depth of Well: 23.36 (FT)

Final Water Elevation: 13.26 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 27 (°F)
Wind: 5-10 (mph) Direction: WNW
YSI #: 4
Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	~~< 0.3 foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
0950	9.57		200	8.9	42.8	0.808	7.34	54.3	5.52	
0955	10.31		200	9.5	58.5	0.843	7.29	73.2	2.77	
1000	11.50		150	8.8	52.5	0.847	7.29	85.2	3.49	
1005	11.50		150	8.3	54.4	0.842	7.26	95.1	2.80	
1010	11.99		150	8.4	55.1	0.844	7.27	102.1	2.99	
1015	12.39		100	7.9	53.4	0.844	7.27	104.3	3.20	
1020	12.44		100	8.1	52.7	0.844	7.27	107.1	2.02	
1025	12.99		100	7.8	54.1	0.846	7.25	110.4	1.04	
~~1030~~										
12-4-24										
	8:34		100	7.4	61	0.833	8.42	104.7	0.02	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 5.5

Comments: Increase flow rate to purge to intake ~400 ml/min

16.21

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/12/24

Well ID: MW-11SR

Sampler(s): EDP

Analyte Collected		Time/Date
PCBs ✓		0941 12/12/24

Note: Resample due to original samples freezing & shattering bottles

Pre-purge Water Elevation: 7.89 (BTIC)

Intake Elevation: 21 (BTIC)

Screened Interval: 14-24 (BTIC)

TIC Elevation: 242.8 (FT)

Depth of Well: 24.41 (FT)

Final Water Elevation: 13.91 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 30 (°F)

Wind: 14 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	~~< 0.3 foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
0905	10.58		250	9.3	56	0.981	7.43	101.7	11.0	
0910	11.04		150	7.6	47	0.962	7.48	112.9	7.67	
0915	11.52		150	8.1	46	0.972	7.47	122.9	7.01	
0920	12.01		150	8.1	46	0.983	7.47	129.9	7.46	
0925	12.45		150	8.2	42	0.993	7.49	135.5	8.08	
0930	12.62		100	7.9	37	1.008	7.48	139.0	7.26	
0935	12.81		100	7.1	37	1.033	7.46	143.6	6.73	
0938	13.01		100	7.0	37	1.051	7.46	146.1	7.23	*stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 1.75

Comments: Initial flowrate ~400mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: MW-11SR

Sampler(s): EDP

Analyte Collected		Time/Date
FCN ✓		1359
Fluoride ✓		
Sulfate ✓		12/3/24
PCBs ✓		

Note: FD collected at 1409

Pre-purge Water Elevation: 9.39 (BTIC)

Intake Elevation: 20 (BTIC)

Screened Interval: 14-24 (BTIC)

TIC Elevation: 242.8 (FT)

Depth of Well: 24.41 (FT)

Final Water Elevation: 14.39 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 29 (°F)

Wind: 7 (mph) Direction: WNW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	< 0.3 ~~foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
1324	12.09		300	11.0	36	1.000	7.37	163.5	0.97	
1329	12.42		300	10.8	37	0.923	7.36	173.5	0.02	
1334	14.14		125	9.4	31	1.080	7.32	180.4	0.04	
1339	14.12		125	9.0	30	1.006	7.32	183.7	0.02	
1344	14.13		125	8.9	30	0.973	7.27	186.8	0.07	
1349	14.14		125	9.0	29	0.970	7.27	189.4	0.02	
1354	14.14		125	9.9	28	0.970	7.31	191.3	0.02	*Stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.25

Comments: Initial flowrate ~350 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: MW-12S

Sampler(s): GDP

Analyte Collected		Time/Date
FCN		0759 12/4/24
Fluoride		
Sulfate		
PCBs		

Note: MS/MSD

Pre-purge Water Elevation: 7.54 (BTIC)

Intake Elevation: 14 (BTIC)

Screened Interval: 8-18 (BTIC)

TIC Elevation: 247.08 (FT)

Depth of Well: 18.72 (FT)

Final Water Elevation: 13.65 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 29 (°F)

Wind: 7 (mph) Direction: WNW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	< 0.3 ~~foot~~	± 3 %	± 10 %	±10 mV	± 10 %	
1218	9.73		275	10.0	79	3.295	7.31	126.8	0.74	
1223	10.41		275	9.9	58	3.260	7.24	142.5	0.80	
1228	10.64		175	9.6	60	3.212	7.24	146.2	5.44	
1233	11.15		175	9.4	56	3.199	7.21	150.4	4.69	
1238	11.60		175	9.4	22	3.216	7.22	153.0	11.8	
1243	11.85		175	9.7	31	3.289	7.27	155.8	2.51	
1248	12.12		175	9.9	20	3.405	7.28	157.6	0.09	not stable run dry to intake
0747	8.41		200	7.5	35	2.271	7.39	235.0	7.81	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3

Comments: Initial flowrate ~375 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: MW-13S

Sampler(s): JCG

Analyte Collected		Time/Date
FCN		12/4/24 @ 8:38
Fluoride		
Sulfate		
PCBs		

Note

Pre-purge Water Elevation: 6.48 (BTIC)

Intake Elevation: 13.5' (BTIC)

Screened Interval: 8.5-18.5 (BTIC)

TIC Elevation: 245.19 (FT)

Depth of Well: 18.77 (FT)

Final Water Elevation: 11.09 (BTIC)

Pump used: Waterra / Peristaltic / Grundfos / Bailer

Temp: 29 (°F)

Wind: 7 (mph) Direction: SE

YSI #: Rental 8241

Turbiditymeter #: 6

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	< 0.3 foot	± 3 %	± 10 %	±10 mV	± 10 %	
12:30	7.61		300	10.5	40.7	5.559	7.06	163.6	2.78	
12:35	8.30	-0.69	275	10.4	46.7	5.449	7.02	173.1	0.14	
12:40	8.90	-0.60	200	9.9	45.1	5.121	7.02	189.0	0.02	
12:45	9.43	-0.53	175	9.8	43.7	4.761	7.02	193.4	0.02	
12:50	9.81	-0.38	180	9.8	43.3	4.371	7.05	195.2	0.02	
13:55	10.25	-0.34	150	9.8	44.5	4.074	7.07	188.0	0.02	
13:05	10.71	-0.46	500	10.4	42.8	4.582	7.02	121.4	0.02	
0838	8.64		150	8.9	61.6	4.366	7.28	211	0.02	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal):

Comments

Purge to intake

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/4/24

Well ID: MW-14S

Sampler(s): JCG

Analyte Collected		Time/Date
FCN		
Fluoride		
Sulfate		
PCBs		

Note:

Pre-purge Water Elevation: 9.06 (BTIC)

Intake Elevation: 15' (BTIC)

Screened Interval: 10-20 (BTIC)

TIC Elevation: 248.16 (FT)

Depth of Well: 20.08 (FT)

Final Water Elevation: 13.46 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 30 (°F)

Wind: 12 (mph) Direction: NE↑

YSI #: 4

Turbiditymeter #: 6

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0946	10.40		150	7.7	57.8	1.454	7.32	213.6	5.28	
0951	10.47		140	7.6	54.9	1.465	7.35	213.2	4.44	
0956	10.53		130	7.9	59.5	1.445	7.36	213.7	8.39	
10:01	10.80		150	7.8	56.7	1.433	7.41	213.6	8.73	
10:06	11.09		150	8.0	60.8	1.424	7.41	214.1	6.15	
10:11	11.56		150	8.1	61.1	1.410	7.41	213.7	4.43	
10:16	11.86		150	7.9	61.0	1.411	7.41	213.6	4.02	★ Sample
10:21										

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): ~5 gallons

Comments:

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: MW-15S-87

Sampler(s): EDP

Analyte Collected		Time/Date
FCN		0859 12/5/24
Fluoride		
Sulfate		
PCBs		

Note

Pre-purge Water Elevation: 16.22 (BTIC)

Intake Elevation: 22 (BTIC)

Screened Interval: ~~23-33~~ (BTIC)

TIC Elevation: 248.72 (FT)

Depth of Well: 26.45 (FT)

Final Water Elevation: 21.98 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 27 (°F)

Wind: 6 (mph) Direction: NW

YSI #: S

Turbiditymeter #: S

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1023	17.21		225	10.5	42	0.989	7.22	116.1	14.3	
1028	17.81		225	10.7	42	1.035	7.17	119.5	8.07	
1033	17.79		225	10.9	42	1.060	7.19	110.5	10.5	
1038	18.74		225	10.5	42	1.052	7.23	110.2	10.0	
1043	19.12		200	10.6	40	1.037	7.24	107.3	7.71	
1048	20.04		200	10.3	38	1.036	7.16	109.2	4.06	
1053	20.47		125	9.3	38	1.029	7.19	113.4	11.0	
1058	20.81		125	8.7	36	1.020	7.13	121.2	4.89	
1101	21.01		125	8.5	36	1.005	7.21	125.7	5.75	
1106	21.45		125	8.3	34	0.970	7.22	131.5	5.25	
1110	21.72		125	8.3	34	0.966	7.13	132.6	5.19	not stable pump down to intake 12/4/24
0713	~20.02	- not enough to sample								
0846	18.21		200	6.0	55	1.093	7.49	230.0	4.11	12/5/24

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged (gal): 3.75 gallons				

Comments

Initial flowrate ~ 300 mL/min

CDM Smith

listen. think. deliver.

(Page of)

Project:	
Date:	12/6/24
Well ID:	MW-165
Sampler:	JCG

19° YSI 4
13 mph SE ↘ Turb 5
18.73' Intake at 20'

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (mg/L)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %		± 3 %	± 10 %	±10 mV	± 1 NTU	
0656	18.74		150	6.5	137.6	1.182	7.60	202.4	90.8	
0701	18.74		150	7.2	193.7	1.187	7.71	198.4	82.8	
0706	18.74		170	8.2	141.3	1.192	7.76	197.9	65.4	
0711	14.74		150	8.3	148.4	1.199	7.71	198.8	53.4	
0716	18.74		150	8.4	143.4	1.202	7.70	200.0	41.2	
0721	18.74		150	8.3	147.3	1.203	7.74	200.8	35.4	
0726	18.74		150	7.9	149.2	1.210	7.73	202.2	28.7	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged:				

Comments

12/6/24

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/5/24

Well ID: MW-16S

Sampler(s): JCG

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 12/6/24 @ 07:30

Note: MW-1229 @ 7:35 FBV

Pre-purge Water Elevation: 18.73 (BTIC)

Intake Elevation: 20' (BTIC)

Screened Interval: 15.08-25.08 (BTIC)

TIC Elevation: 228.68 (FT)

Depth of Well: 25.59 (FT)

Final Water Elevation: 18.74 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: ~~31~~ 19 (°F)

Wind: ~~11~~ 13 (mph) Direction: ~~NE~~ SE

YSI #: ~~4~~ 4

Turbiditymeter #: ~~4~~ 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0656	18.74		150	6.5	137.6	1.182	7.60	202.4	90.8	
0701	18.74		150	7.2	173.7	1.187	7.71	198.4	82.8	
0706	18.74		170	8.2	141.3	1.192	7.70	197.9	65.4	
0711	18.74		150	8.3	148.4	1.199	7.71	198.8	53.8	
0716	18.74		150	8.4	142.4	1.202	7.70	200.0	41.2	
0721	18.74		150	8.3	147.3	1.203	7.74	200.8	35.4	
0726	18.74		150	7.9	149.2	1.210	7.73	202.2	24.7	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 0.75

Comments

Tubing fell deep in the well. can't get it. will talk with basil to see what can be done

New tubing installed 12/6/24

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/5/24

Well ID: MW-17S

Sampler(s): JCG

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 12/6/24 @ 8:20

Note

Pre-purge Water Elevation: 12.65 (BTIC)

Intake Elevation: 15' (BTIC)

Screened Interval: 10.4-20.4 (BTIC)

TIC Elevation: 226.65 (FT)

Depth of Well: 20.22 (FT)

Final Water Elevation: 17.12 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 30 (°F)

Wind: 11 (mph) Direction: N E ↗

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0721	13.39		190	8.7	192.8	1.140	7.06	73.2	36.6	
0727	13.96		190	9.3	184	1.151	7.10	64.0	18.9	
0819	14.24			7.1	70.4	1.212	7.31	228.8	10.4	12/6/24

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 0.40 gal

Comments

Pumping to intake

12/6/24 Had to drop intake approx 2' to get volume

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/4/24

Well ID: MW-18S

Sampler(s): JCG

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 12/4/24 @ 1420

Note: MW-1224 - 1224 BD @ 1430

Pre-purge Water Elevation: 14.03 (BTIC)

Intake Elevation: 19' (BTIC)

Screened Interval: 14.55-24.55 (BTIC)

TIC Elevation: 226.67 (FT)

Depth of Well: 25.44 (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: (°F)

Wind: (mph) Direction:

YSI #:

Turbiditymeter #:

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1350	17.99		180	9.1	90.3	1.109	7.53	140.9	0.02	
1355	18.00		200	10.5	91.6	1.111	7.52	158.4	0.02	
1400	18.00		200	10.8	85.2	1.102	7.53	170.4	0.02	
1405	18.00		200	10.9	82.3	1.0962	7.52	140.4	0.02	
1410	18.00		200	10.7	79.2	1.086	7.52	188.9	0.02	
1415	18.02		200	10.8	76.0	1.082	7.54	194.8	0.02	
1420	18.00		200	10.7	72.6	1.080	7.55	199.0	0.02	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal):

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: ~~11/7~~ 12/5/24

Well ID: MW-19S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	0635 12/6/24
Fluoride	✓	
Sulfate	✓	
PCBs	✓	

Note:

Pre-purge Water Elevation: 14.12 (BTIC)

Intake Elevation: 17 (BTIC)

Screened Interval: 9-19 (BTIC)

TIC Elevation: 226.55 (FT)

Depth of Well: 19.4 (FT)

Final Water Elevation: 16.79 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: ~~3~~ 31 (°F)

Wind: 9 (mph) Direction: WSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1005	15.32		275	11.4	80	0.858	7.33	189.4	6.64	
1010	15.64		225	11.2	77	0.844	7.28	192.4	1.95	
1015	16.04		175	10.2	76	0.845	7.30	193.6	2.64	
1020	16.36		150	10.2	71	0.858	7.29	194.7	3.48	
1025	16.51		125	9.9	25	0.877	7.29	195.6	0.93	
1030										well ran dry
0633	14.75		200	5.7	64	0.798	7.24	224.7	1.17	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 1.75

Comments: Initial flowrate ~500 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: MW-20-85S

Sampler(s): CDP

Analyte Collected		Time/Date
FCN ✓		12/4/24 1033
Fluoride ✓		
Sulfate ✓		
PCBs ✓		

Note: Ran dry within first 5 min of pumping at 375mL/min

Pre-purge Water Elevation: 11.41 (BTIC)

Intake Elevation: 15 (BTIC)

Screened Interval: 8-18 (BTIC)

TIC Elevation: 225.1 (FT)

Depth of Well: 18.37 (FT)

Final Water Elevation: 14.89 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 24 (°F)

Wind: 5 (mph) Direction: WNW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
				5.5	63	2,427	12.9	120.5	—	
1023	12.43		200	6.0	48	2,330	12.22	-46.7	14.6	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 0.75

Comments: Initial flowrate ~375 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/11/24

Well ID: MW-22-85S

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1611 12/11/24
Fluoride	✓	
Sulfate	✓	
PCBs	✓	

Pre-purge Water Elevation: 7.89 (BTIC)

Intake Elevation: 27 (BTIC)

Screened Interval: 22-32 (BTIC)

TIC Elevation: 247.5 (FT)

Depth of Well: 32.88 (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 40 (°F)

Wind: 3 (mph) Direction: N

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1535	11.01		150	8.2	40	1.766	7.31	-0.8	12.3	
1540	11.43		150	8.1	39	1.744	7.31	1.9	7.82	
1545	11.84		150	8.3	31	1.736	7.31	0.0	6.48	
1550	12.03		150	8.3	27	1.733	7.32	-6.2	7.51	
1555	12.32		150	8.4	23	1.730	7.32	-15.7	6.19	
1600	12.43		150	8.2	22	1.729	7.32	-21.6	5.92	
1605	12.51		150	8.1	21	1.728	7.32	-26.8	6.39	
1608	12.54		150	8.1	20	~~1.728~~ 1.728	7.32	-30.2	5.60	* Stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3.0

Comments

Initial flowrate ~425 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: MW-23-85S

Sampler(s): JCG

Analyte Collected		Time/Date
FCN		12/4/24 @ 9:09
Fluoride		
Sulfate		
PCBs		

Note

Pre-purge Water Elevation: 9.87 (BTIC)

Intake Elevation: 26' (BTIC)

Screened Interval: 22.8-32.8 (BTIC)

TIC Elevation: 244.7 (FT)

Depth of Well: 33.03 (FT)

Final Water Elevation: 18.15 (BTIC)

Pump used: (Waterra) Peristaltic Grundfos Bailer

Temp: 27 (°F)

Wind: 6 (mph) Direction: SE

YSI #: Rental 8241

Turbiditymeter #: 6

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
10:05	12.63		325	8.1	77.4	1.262	7.22	208.7	58.6	
10:10	14.38		150	7.5	74.2	1.260	7.17	201.9	81.6	
10:15	15.30		95	6.2	74.1	1.257	7.16	197.5	94.6	
10:20	15.96		175	4.7	63.5	1.254	7.15	194.2	95.5	
10:25	17.23		125	7.0	51.1	1.251	7.13	189.7	102	
10:30	18.28		110	5.9	49.6	1.255	7.16	111.0	91.0	
10:35	18.68		75	5.4	49.0	1.258	7.15	120.2	86.9	
09:09	14.87		200	8.7	42.2	1.343	7.34	187.6	40.7	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.5

Comments

Purged to top of screen

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/5/24
Well ID: MW-26S
Sampler(s): JCG

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 12/5/24 @09:58

Note:

Pre-purge Water Elevation: 11.25 (BTIC)
Intake Elevation: 25' (BTIC)
Screened Interval: 19.5-29.5 (BTIC)
TIC Elevation: 225.14 (FT)
Depth of Well: 30.06 (FT)

Final Water Elevation: 19.07 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 34 (°F)
Wind: 10 (mph) Direction: NE
YSI #: 4
Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
9:13	13.42		225	11.2	123.6	0.906	7.57	-66.5	2.25	
9:18	14.43	-1.01	220	11.1	120.1	0.907	7.49	-18.9	0.62	
9:23	15.6	-1.17	220	10.0	112.6	0.913	7.43	-0.1	0.02	
9:28	16.45	-0.85	175	10.6	101.4	0.920	7.36	5.7	0.02	
9:33	17.17	-0.72	175	10.4	90.1	0.919	7.33	-7.0	0.02	
9:38	17.68	-0.51	160	9.8	62.3	0.933	7.34	-10.8	0.02	
9:43	18.05	-0.37	160	9.8	67.2	0.935	7.28	-16.2	0.02	
9:48	18.35	-0.30	160	9.7	60.3	0.939	7.27	-31.7	0.02	
9:53	18.57	-0.22	160	9.8	64.6	0.937	7.27	-37.0	0.02	
9:58	18.74	-0.30	160	9.5	68.0	0.942	7.27	-34.4	0.02	#

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.6 gallons

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/5/24

Well ID: MW-27S

Sampler(s): GDP

Analyte Collected		Time/Date
FCN	✓	0731 12/5/24
Fluoride	✓	
Sulfate	✓	
PCBs	✓	

Note: MW-1228-1224 FB at 0757

Pre-purge Water Elevation: 9.49 (BTIC)

Intake Elevation: 20 (BTIC)

Screened Interval: 14.8-24.8 (BTIC)

TIC Elevation: 229.79 (FT)

Depth of Well: 24.91 (FT)

Final Water Elevation: 15.71 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 31 (°F)

Wind: 7 (mph) Direction: SSW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0653	13.65		200	10.9	67	6.87	7.32	199.9	1.70	
0658	14.74		125	9.5	64	6.99	7.34	202.1	1.04	
0703	14.88		125	9.5	59	7.03	7.35	202.5	0.59	
0708	15.09		125	9.1	58	7.12	7.35	202.7	0.08	
0713	15.09		125	9.1	58	7.20	7.35	201.6	0.02	
0718	15.19		125	9.1	57	7.23	7.35	200.1	0.04	
0723	15.26		125	9.1	55	7.25	7.36	198.4	0.02	# stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.0

Comments: Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/6/24

Well ID: MW-28S

Sampler(s): JCB

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 12/6/24 @ 09:38

Note:

Pre-purge Water Elevation: 12.73 (BTIC)

Intake Elevation: 21' (BTIC)

Screened Interval: 16-26 (BTIC)

TIC Elevation: 226.54 (FT)

Depth of Well: 27.56 (FT)

Final Water Elevation: 14.03 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 20 (°F)

Wind: 13 (mph) Direction: SE

YSI #: 4

Turbiditymeter #: 4

Time 0900	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
[redacted]	14.09		250	9.3	98.2	1.024	8.12	111.4	3.54	
0905	14.00		250	10.3	56.0	1.054	8.05	190.8	0.02	
0910	14.00		250	10.3	58.9	1.057	8.07	155.0	0.02	
0915	14.03		250	10.9	51.2	1.036	8.07	125.5	0.02	
0920	14.04		260	10.8	63.6	1.053	8.07	58.8	0.02	
0925	14.04		260	10.8	56.5	1.054	8.06	74.8	0.02	
0930	14.05		260	10.6	52.9	1.053	8.06	68.5	0.02	
0935	14.03		260	10.8	48.2	1.052	8.07	53.9	0.02	FD Sample

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.75

Comments:

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24
Well ID: MW-30S
Sampler(s): JCG

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 12/3/24 @ 9:05

Note:

Pre-purge Water Elevation: 5.85 (BTIC)
Intake Elevation: 12' (BTIC)
Screened Interval: 7-17 (BTIC)
TIC Elevation: 235.05 (FT)
Depth of Well: 17.81 (FT)

Final Water Elevation: 6.49 (BTIC)

Pump used (Circle One): Waterra | (Peristaltic) | Grundfos | Bailer

Temp: 26 (°F)
Wind: 5 (mph) Direction: S E W
YSI #: Rental 8241
Turbiditymeter #: 6

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
~~8:25~~										
8:30	5.92		280	6.2	48.7	1.097	6.85	208.0	15.7	
8:35	6.00	-0.08	290	8.5	38.4	1.075	6.79	155.1	8.40	
8:40	6.07	-0.07	290	8.1	30.9	0.946	6.77	32.2	0.02	
8:45	6.21	-0.14	300	7.9	29.4	0.919	6.77	22.3	0.02	
8:50	6.22	-0.01	300	8.0	28.5	0.875	6.79	18.4	0.02	water tape acting weird
8:55	6.70	-0.48	290	7.8	28.7	0.850	6.80	22.3	0.02	
9:00	6.74	-0.04	300	7.8	28.7	0.837	6.81	21.4	0.02	
9:05	6.35		300	7.7	28.6	0.823	6.82	25.5	0.02	Sample

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3.25 gal

Comments: Water tape isn't working right

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/12/24

Well ID: MW-30S

Sampler(s): EDP

Analyte Collected		Time/Date
PCBs ✓		1348 12/12/24

Note

Pre-purge Water Elevation: 5.24 (BTIC)

Intake Elevation: 14 (BTIC)

Screened Interval: 7-17 (BTIC)

TIC Elevation: 235.05 (FT)

Depth of Well: 17.81 (FT)

Final Water Elevation: 5.42 (BTIC)

Pump used (Circle One): Waterra / Peristaltic / Grundfos / Bailer

Temp: 30 (°F)

Wind: 19 (mph) Direction: WSW

YSI #: S

Turbiditymeter #: S

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1301	5.40		450	7.9	29	0.811	7.02	59.7	6.46	
1306	5.40		450	7.6	36	0.765	7.01	47.2	6.60	
1311	5.38		325	7.3	39	~~0.719~~	7.00	41.1	4.63	
1316	5.35		250	6.8	42	~~0.687~~	6.99	40.3	3.94	battery losing charge
1321	5.39		400	7.4	48	0.667	7.02	43.2	5.56	plugged in new battery
1326	5.40		400	7.4	50	0.652	7.03	48.1	5.90	
1331	5.42		400	7.2	55	0.631	7.01	52.2	4.96	
1336	5.42		400	7.2	59	0.621	7.03	58.0	5.16	* stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 6.0

Comments

Initial flowrate ~450 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling

(Page of)

Date: 12/4/24

Well ID: MW-31SR

Sampler(s): JCG

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 12/4/24 @ 12:32

Note:

Pre-purge Water Elevation: 16.27 (BTIC)

Intake Elevation: 25' (BTIC)

Screened Interval: 20-30 (BTIC)

TIC Elevation: 234.83 (FT)

Depth of Well: 30 (FT)

Final Water Elevation: 20.28 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 32 (°F)

Wind: 10 (mph) Direction: NE↑

YSI #: 4

Turbiditymeter #: 6

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
11:59	17.15		150	7.8	87.0	0.810	7.95	-104.0	15.3	
12:04	17.64		150	8.0	78.5	0.804	7.89	-101.6	13.0	
12:09	17.95		150	8.0	74.0	0.806	7.87	-96.8	10.9	
12:14	18.23		145	8.1	69.6	0.802	7.88	-86.8	8.32	
12:19	18.44		140	8.2	52.8	0.803	7.87	-79.8	5.43	
12:24	18.74		140	8.2	46.5	0.803	7.83	-75.3	2.02	
12:29	19.05			8.4	42.5	0.805	7.88	-70.7	1.93	* Sample

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 1.5 gal

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-9-24
Well ID: MW-33S
Sampler(s): BC

Analyte Collected		Time/Date
FCN	X	1205 12.10.24

Note: switch to waterra

Pre-purge Water Elevation: 13.37 (BTIC)
Intake Elevation: 24 (BTIC)
Screened Interval: 18.54-28.54 (BTIC)
TIC Elevation: 225.74 (FT)
Depth of Well: 29.38 (FT)

Final Water Elevation: 19.1 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 24 (°F)
Wind: 10-20 (mph) Direction: NNE
YSI #: 4
Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1330	15.96		250	8.9	53.1	1.850	7.37	-23.0	0.02	
1335	16.89		150	7.8	57.1	1.801	7.35	-7.1	0.13	
1340	17.75		150	8.2	64.1	1.748	7.37	2.2	0.02	
1345	18.49		100	8.0	44.0	1.689	7.41	10.7	0.02	
~~1350~~										
~~1355~~										
~~1400~~										
1405	20.09		100	7.2	47.1	1.629	7.47	1.3	0.02	
1410	20.28		100	7.0	44.4	1.649	7.52	6.9	0.02	
~~1415~~										
~~1420~~										
~~1425~~										
12-10-24										
1205	18.34		100	7.3	34.6	1.703	7.49	21.4		

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3

Comments:
Increase flow to pump to intake @ 1345 275 ml/min
Resume sampling at 1405
Pump will not maintain flow

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-11-24

Well ID: MW-34S

Sampler(s): JC

Analyte Collected		Time/Date
FCN	X	0912 12-12-24

Note: Change to waterra

Pre-purge Water Elevation: 13.31 (BTIC)

Intake Elevation: 22 (BTIC)

Screened Interval: 17.67-27.67 (BTIC)

TIC Elevation: 225.74 (FT)

Depth of Well: 31.56 (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 36 (°F)

Wind: 5-10 (mph) Direction: NW

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1010	14.38		250	10.4	70.4	2.829	7.61	199.0	5.9	
1015	17.94		175	10.0	77.6	2.827	7.64	198.8	4.4	
1020	18.98		175	9.9	70.9	2.829	7.64	199.2	3.1	
~~1025~~										
~~1030~~										
~~1035~~										
12-12-24										
0912	16.36		175	6.2	51.7	2.915	7.76	230.3	8.0	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 1.5

Comments

250 ml/min @ start
Pump down to intake

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-11-24

Well ID: MW-35SR

Sampler(s): BL

Analyte Collected		Time/Date
FCN ✓		0925
Fluoride ✓		12-12-24
Sulfate ✓		
PCBs ✓		

Note: switch to waterra

Pre-purge Water Elevation: 16.52 (BTIC)

Intake Elevation: 22 (BTIC)

Screened Interval: 16.8-26.8 (BTIC)

TIC Elevation: 213.52 (FT)

Depth of Well: 27.92 (FT)

Final Water Elevation: 21.4 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 31 (°F)

Wind: 5-10 (mph) Direction: NW

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1050	17.63		200	10.4	82.1	2.179	6.90	59.3	37.0	
1055	17.94		200	11.1	72.1	2.206	6.90	74.7	16.5	
1100	18.19		150	10.8	45.3	2.204	6.89	89.5	5.8	
1105	18.44		150	11.0	56.7	2.195	6.90	97.2	4.8	
1110	18.70		125	10.8	53.5	2.194	6.90	105.7	3.6	
1115	18.94		125	10.6	45.3	2.205	6.89	111.5		
~~1120~~			125							
~~1125~~										
~~1130~~										
12-12-24										
0925	18.89		150	6.9	32.7	1.990	7.02	214.2	9.2	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal):

Comments: Pump keeps losing prime. Pump down to intake

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/9/24

Well ID: MW-36

Sampler(s): EDP

Analyte Collected		Time/Date
FCN		1151
Fluoride		
Sulfate		
PCBs		12/10/24

Note: replaced tubing; MS/MSD; 12518D at 1221

Pre-purge Water Elevation: 10.48 (BTIC)

Intake Elevation: 27 (BTIC)

Screened Interval: 21.5-31.5 (BTIC)

TIC Elevation: 209.36 (FT)

Depth of Well: 33.75 (FT)

Final Water Elevation: 27.1 (BTIC)

Pump used: Waterra / Peristaltic / Grundfos / Bailer

Temp: 26 (°F)

Wind: 15 (mph) Direction: ENE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1355	20.26		125	3.5	28	2.415	8.30	152.8	458	
1400	21.09		125	4.5	30	2.421	8.33	156.7	610	
1405	22.01		150	5.4	31	2.398	8.35	157.4	733	
1410	22.69		125	4.9	31	2.427	8.36	158.3	792	
1415	23.45		125	4.1	31	2.428	8.36	159.3	946	
1420	23.80		100	3.3	34	2.440	8.37	160.5	979	
1425	24.47		150	3.7	31	2.394	8.38	161.0	925	
1428	24.77		125	4.6	31	2.423	8.37	160.8	729	not stable
										purge down to intake
1043	16.30			3.9	74	2.577	8.55	142.1	650	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3.5

Comments: Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/9/24

Well ID: MW-37

Sampler(s): EDP

Analyte Collected		Time/Date
FCN ✓		1551 12/9/24
Fluoride ✓		
Sulfate ✓		
PCBs ✓		

Note

Pre-purge Water Elevation: 4.67 (BTIC)

Intake Elevation: 28 (BTIC)

Screened Interval: 24.75-34.75 (BTIC)

TIC Elevation: 207.65 (FT)

Depth of Well: 35.31 (FT)

Final Water Elevation: 196.57 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 26 (°F)

Wind: 15 (mph) Direction: ENE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1513	10.92		350	7.9	30	1.075	7.62	57.0	527	
1518	11.21		300	7.8	28	1.077	7.60	43.5	514	
1523	11.30		275	7.8	25	1.081	7.58	22.9	491	
1528	11.84		325	7.7	21	1.084	7.53	-7.4	426	
1533	12.92		275	7.3	16	1.092	7.47	-47.5	317	
1538	13.41		275	7.4	14	1.097	7.47	-65.1	270	
1543	13.11		275	7.3	14	1.095	7.44	-68.1	240	
1546	13.21		275	7.1	14	1.095	7.44	-69.8	229	*Sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 4.25

Comments

Initial Flowrate ~ 500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/11/24

Well ID: MW-38

Sampler(s): GDP

Analyte Collected		Time/Date
FCN		0851 12/11/24
Fluoride		
Sulfate		
PCBs		

Note: inner casing moves

while purging water level levelled off at ~ 26.7ft so resumed stablization

Pre-purge Water Elevation: 7.51 (BTIC)

Intake Elevation: 30 (BTIC)

Screened Interval: 24-34 (BTIC)

TIC Elevation: 202.64 (FT)

Depth of Well: 35.01 (FT)

Final Water Elevation: 27.41 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 39 (°F)

Wind: 2 (mph) Direction: NE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0732	11.52		125	8.8	35	0.610	7.91	194.8	408	
0737	12.19		125	8.1	39	0.606	7.92	193.7	251	
0742	13.06		125	7.8	36	0.605	7.93	191.9	405	
0747	13.52		100	7.9	34	0.606	7.95	191.0	521	
0752	14.11		125	8.2	32	0.604	7.94	190.8	624	
0757	14.86		125	8.0	29	0.606	7.96	190.3	783	
0802	15.71		125	7.8	29	0.605	7.97	190.1	816	purge down to intake just stable
0834	26.78		250	9.2	25	0.604	8.01	178.5	522	
0838	27.02		225	9.2	25	0.606	8.03	177.8	464	
0842	27.27		225	9.0	26	0.605	8.03	177.1	424	
0845	27.29		225	9.2	26	0.605	8.03	176.2	420	*Sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 5.75 gallons

Comments

Initial flowrate ~ 450 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-3-24

Well ID: MW-39S

Sampler(s): BC

Analyte Collected	
FCN	✓
Fluoride	✓
Sulfate	✓
PCBs	✓

Time/Date: 1245 12-3-24

Note:

Pre-purge Water Elevation: 5.34 (BTIC)

Intake Elevation: 16 (BTIC)

Screened Interval: 9.5-19.5 (BTIC)

TIC Elevation: 195.87 (FT)

Depth of Well: 20.93 (FT)

Final Water Elevation: 9.28 (BTIC)

Temp: (°F)

Wind: 5-10 (mph) Direction: NNW

YSI #: 4

Turbiditymeter #: 4

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1145	8.23		275	8.6	36.5	0.910	7.30	85.8	1.3	
1150	8.55		175	8.2	34.0	0.908	7.28	96.8	0.17	
1155	8.76		175	8.3	36.4	0.916	7.20	95.6	0.84	
1200	8.90		175	8.3	32.2	0.922	7.16	78.4	0.02	
1205	8.98		175	7.9	29.4	0.929	7.11	59.0	0.02	
1210	9.06		175	8.3	27.0	0.934	7.06	8.0	0.02	
1215	9.10		175	8.5	25.8	0.945	7.02	-4.6	0.02	
1220	9.14		175	8.6	23.5	0.949	7.00	-10.8	0.02	
1225	9.15		175	8.6	21.7	0.949	6.99	-14.1	0.02	
1230	9.15		175	8.2	21.9	0.956	6.95	-17.7	0.02	
1235	9.15		175	8.5	20.0	0.953	6.95	-19.6	0.02	
1240	9.17		175	8.6	20.1	0.957	6.94	-21.5	0.02	
1245	9.17		175	8.5	21.3	0.962	6.92	-22.5	0.02	
1250										
1255										

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged (gal):	3.25			

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-12-24

Well ID: MW-39S

Sampler(s): EC

Analyte Collected		Time/Date
PCBs X		1055 12-12-24

Note

Pre-purge Water Elevation: 4.00 (BTIC)
Intake Elevation: 15.5 (BTIC)
Screened Interval: 9.5-19.5 (BTIC)
TIC Elevation: 195.87 (FT)
Depth of Well: 20.93 (FT)
Final Water Elevation: 10.41 (BTIC)

Temp: 30 (°F)
Wind: 10-20 (mph) Direction: N/W
YSI #: 4
Turbiditymeter #: 4

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1010	9.43		350	8.1	49.9	0.922	7.09	10.5	2.5	
1015	9.38		275	7.8	46.2	0.929	7.05	28.8	0.02	
1020	10.21		275	7.8	40.7	0.938	7.00	28.7	0.02	
1025	10.14		200	7.8	39.2	0.945	6.93	-5.5	0.02	
1030	10.23		275	7.6	36.0	0.957	6.92	-14.0	0.02	
1035	10.27		225	7.8	34.0	0.944	6.92	-19.3	0.02	
1040	10.33		225	7.9	31.2	0.939	6.89	-24.4	0.02	
1045	10.35		275	8.0	26.9	0.939	6.86	-29.6	0.02	
1050	10.38		225	8.1	25.6	0.937	6.87	-30.1	0.02	
1055	10.42		225	8.1	24.7	0.939	6.87	-32.0	0.02	
1100										

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 4

Comments: 500 ml/min at start

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-4-24

Well ID: MW-40S

Sampler(s): BC

Analyte Collected		Time/Date
FCN	✓	1325 12-4-24
Fluoride	✓	
Sulfate	✓	
PCBs	✓	

Note

Pre-purge Water Elevation: 2.84 (BTIC)

Intake Elevation: 17 (BTIC)

Screened Interval: 8-18 (BTIC)

TIC Elevation: 193.75 (FT)

Depth of Well: 20.0 (FT)

Final Water Elevation: 3.6 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 32 (°F)

Wind: 10-20 (mph) Direction: S

YSI #: 5

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1250	5.24		350	10.6	39	1.104	7.51	56.6	0.02	
1255	7.10		350	10.5	33	1.108	7.47	76.0	0.02	
1300	7.85		200	9.8	30	1.108	7.46	89.2	0.02	
1305	8.41		200	9.8	28	1.110	7.43	99.3	0.02	
1310	8.64		150	9.5	26	1.120	7.40	105.9	0.02	
1315	8.84		150	9.6	25	1.132	7.37	109.2	0.02	
1320	8.98		150	9.5	24	1.152	7.33	111.7	0.02	
1325	9.17		150	9.9	22	1.163	7.30	113.8	0.02	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal):

Comments

350 ml/min @ start

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/9/24

Well ID: MW-41

Sampler(s): EDP

Analyte Collected		Time/Date
FCN		0933 12/9/24
Fluoride		
Sulfate		
PCBs		

Note

Pre-purge Water Elevation: 25.35 (BTIC)

Intake Elevation: 42 (BTIC)

Screened Interval: 35-45 (BTIC)

TIC Elevation: 224.25 (FT)

Depth of Well: 47.35 (FT)

Final Water Elevation: 40.90 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 24 (°F)

Wind: 9 (mph) Direction: ENE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0834	30.63		125	5.3	39	1.119	7.30	208.4	480	
0839	31.94		150	5.6	36	1.104	7.31	197.5	713	
0844	32.88		150	5.5	31	1.102	7.31	190.1	684	
0849	33.91		150	4.7	27	1.105	7.34	185.9	549	
0854	34.75		150	4.6	24	1.103	7.34	183.0	442	
0859	35.51		150	4.4	22	1.101	7.35	181.2	374	
~~08~~ 0904	36.24		125	4.0	21	1.106	7.34	180.4	310	
0908	36.94		175	5.4	20	1.096	7.38	180.0	275	
0911	37.66		175	5.2	19	1.100	7.38	180.7	252	
0914	38.23		175	5.0	18	1.101	7.37	180	238	
0917	38.30		150	4.4	18	1.103	7.44	183.4	234	
0920	38.61		150	4.4	18	1.101	7.43	185.1	225	
0923	38.94		150	4.5	18	1.101	7.43	186.3	217	#s stable

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5
1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.				
Volume Purged (gal): 3.0				

Comments

Initial flow rate ~400 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/9/24

Well ID: MW-42

Sampler(s): EDP

Analyte Collected		Time/Date
FCN ✓		0843
Fluoride ✓		12/10/24
Sulfate ✓		
PCBs ✓		

Note: 1231 FBW collected at 0901

Pre-purge Water Elevation: 19.14 (BTIC)

Intake Elevation: 43 (BTIC)

Screened Interval: 35-45 (BTIC)

TIC Elevation: 211.4 (FT)

Depth of Well: 47.92 (FT)

Final Water Elevation: 42.1 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 26 (°F)

Wind: 14 (mph) Direction: ENE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1207	27.49		125	7.4	9	3.861	7.70	162.9	523	
1212	28.10		125	4.2	12	3.806	7.70	162.5	465	
1217	28.73		125	3.4	13	3.765	8.41	15.6	429	
1222	29.61		100	2.9	14	3.726	7.90	71.9	357	
1227	29.96		225	7.1	10	3.699	7.72	80.9	256	
1232	32.54		225	7.2	10	3671	7.70	90.4	289	
1237	33.58		200	6.4	11	3.660	7.69	97.9	315	not Stable
										purge down to intake
0840	29.13		200	7.4	52	3.778	7.94	232.9	720	12/10/24

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 5.75

Comments: Initial flowrate ~500 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/9/24

Well ID: MW-43

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1106 12/9/24
Fluoride	✓	
Sulfate	✓	
PCBs	-	

Note: 1230 FBW collected at 1126

Pre-purge Water Elevation: 9.34 (BTIC)

Intake Elevation: 43 (BTIC)

Screened Interval: 37-47 (BTIC)

TIC Elevation: 209.12 (FT)

Depth of Well: 48.13 (FT)

Final Water Elevation: 9.97 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 25 (°F) ENE

Wind: 13 (mph) Direction:

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1033	9.96		175	7.7	28	0.886	7.00	187.7	224	
1038	9.95		175	7.3	26	0.875	7.00	198.8	212	
1043	9.96		175	7.5	25	0.876	6.99	203.0	177	
1048	9.96		175	7.0	25	0.875	7.03	206.6	204	
1053	9.96		175	6.8	24	0.875	6.99	209.8	176	
1058	9.96		175	6.9	23	0.872	6.99	211.9	171	
1103	9.96		175	6.9	23	0.875	6.99	214.0	168	stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3.5

Comments: Initial flowrate ~ 500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/6/24

Well ID: MW-44

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1005 12/6/24
Fluoride	✓	
Sulfate	✓	
PCBs	✓	

Note

Pre-purge Water Elevation: 9.44 (BTIC)

Intake Elevation: 24 (BTIC)

Screened Interval: 16-26 (BTIC)

TIC Elevation: 209.04 (FT)

Depth of Well: 28.77 (FT)

Final Water Elevation: 10.02 (BTIC)

Pump used: Waterra | Peristaltic ✓ | Grundfos | Bailer

Temp: 17 (°F)

Wind: 12 (mph) Direction WNW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0930	9.88		300	9.9	14	~~0.68~~ 0.868	7.03	158.9	32.2	
0935	10.03		300	9.8	18	0.862	7.00	174.5	33.8	
0940	10.02		200	8.5	20	0.866	7.01	179.7	34.9	
0945	10.02		200	8.6	19	0.864	6.99	183.9	39.8	
0950	10.02		200	8.4	18	0.858	6.99	187.2	40.0	
0955	10.02		200	8.1	18	0.863	7.01	188.2	40.8	
1000	10.02		200	8.8	18	0.860	7.01	189.6	41.3	*Stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3.5

Comments: Initial flowrate ~500 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-3-24

Well ID: MW-45

Sampler(s): BL

Analyte Collected		Time/Date
FCN ✓		1420 12-3-24
Fluoride ✓		
Sulfate ✓		
PCBs ✓		

Note

Pre-purge Water Elevation: 4.53 (BTIC)

Intake Elevation: 15 (BTIC)

Screened Interval: 7-17 (BTIC)

TIC Elevation: 195.83 (FT)

Depth of Well: 17.73 (FT)

Final Water Elevation: 7.69 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 28 (°F)

Wind: 5-15 (mph) Direction: NNW

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1325	6.32		250	8.8	92.7	1.541	7.19	102.4	0.02	
1330	6.93		250	8.8	88.1	1.539	7.17	125.9	0.02	
1335	7.15		175	8.5	89.4	1.556	7.13	141.3	0.02	
1340	7.28		175	8.3	88.1	1.577	7.06	147.8	0.02	
1345	7.37		175	8.4	85.1	1.593	7.02	148.0	0.02	
1350	7.43		175	8.4	83.7	1.607	6.98	132.3	0.02	
1355	7.45		175	8.5	82.5	1.624	6.95	112.7	0.02	
1400	7.46		175	8.4	81.0	1.631	6.93	90.5	0.02	
1405	7.46		175	8.4	79.6	1.643	6.90	72.0	0.02	
1410	7.46		175	8.5	78.1	1.657	6.87	61.2	0.02	
1415	7.48		175	8.6	76.5	1.6614	6.858	54.3	0.02	
1420	7.50		175	8.5	74.7	1.6688	6.88	51.5	0.02	
1425										

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3.0

Comments: 400 ml/min @ start

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-11-24

Well ID: MW-48

Sampler(s): BC / EDP

Analyte Collected		Time/Date
FCN	✓	1031
Fluoride	✓	
Sulfate	✓	12/12/24
PCBs	✓	

Note: change to waterra

Installed footvalve prior to Sampling

Pre-purge Water Elevation: 7.75 (BTIC)

Intake Elevation: 23 (BTIC)

Screened Interval: 13-28 (BTIC)

TIC Elevation: 194.01 (FT)

Depth of Well: 28 (FT)

Final Water Elevation: 23.8 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 32 (°F)

Wind: 5-10 (mph) Direction: NW

YSI #: 4 / 5

Turbiditymeter #: 4 / 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1155	10.97		375	10.1	50.7	1.518	7.38	56.3	6.3	
1200	12.54		225	9.6	47.5	1.520	7.37	51.0	4.8	
1205	14.16		225	9.5	44.5	1.521	7.36	93.7	3.1	
1210	15.83		150	9.2	43.3	1.523	7.36	102.8	3.0	
1215	16.20		150	9.0	46.7	1.521	7.36	107.8	3.1	
1220	16.46		125	9.1	39.7	1.521	7.35	113.0	3.4	
1225	17.0		125	9.0	37.9	1.541	7.33	115.5	4.1	
1230	17.43		125	8.9	35.8	1.552	7.32	118.2	5.3	
1235										
1240										
1015	19.3		200	5.2	42	1.430	7.39	249.0	220	12/11/24

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 4

Comments: 375 ml/min @ start

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/10/24

Well ID: MW-49

Sampler(s): CDP

Analyte Collected		Time/Date
FCN	—	1548
Fluoride	—	
Sulfate	—	12/10/24
PCBs	—	

Note

Pre-purge Water Elevation: 6.95 (BTIC)

Intake Elevation: 44 (BTIC)

Screened Interval: 37.5-47.5 (BTIC)

TIC Elevation: 187.47 (FT)

Depth of Well: 50.15 (FT)

Final Water Elevation: 8.29 (BTIC)

Temp: 41 (°F)

Wind: 4 (mph) Direction: E

YSI #: 5

Turbiditymeter #: 5

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1510	8.33		150	9.0	23	0.571	7.95	-58.8	272	
1515	8.15		175	8.7	23	0.564	7.90	-69.3	205	
1520	8.16		175	8.8	19	0.568	7.91	-82.0	176	
1525	8.20		175	8.7	17	0.571	7.91	-89.1	115	
1530	8.22		175	8.6	16	0.570	7.91	-93.6	78.2	
1535	8.25		175	8.6	15	0.570	7.92	-96.9	70.3	
1540	8.27		175	8.6	14	0.569	7.92	-100.9	64.9	*Sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 6.25

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12 - 10 - 24

Well ID: MW-50

Sampler(s): BC

Analyte Collected		Time/Date
FCN	✓	1100 12.10.24
Fluoride	✓	
Sulfate	✓	
PCBs	✓	

Note: 1/2" socket

Pre-purge Water Elevation: 1.44 (BTIC)

Intake Elevation: 20 (BTIC)

Screened Interval: 15-25 (BTIC)

TIC Elevation: 177.63 (FT)

Depth of Well: 25 (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 32 (°F)

Wind: 0-3 (mph) Direction: SE

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1035	2.40		300	9.2	23.1	1.778	7.34	-40.2	0.02	
1040	2.73		300	9.4	19.8	1.758	7.39	-71.7	0.02	
1045	2.99		275	9.2	18.6	1.712	7.44	-81.3	0.02	
1050	3.22		275	9.3	18.7	1.702	7.45	-82.4	0.02	
1055	3.43		275	9.4	18.7	1.704	7.45	-81.1	0.02	
1100	3.63		275	9.2	18.9	1.704	7.46	-80.5	0.02	
1105										
1110										

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.5

Comments: 500 ml/min @ start

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/12/24

Well ID: MW-51

Sampler(s): EJP

Analyte Collected		Time/Date
FCN		0805
Fluoride		
Sulfate		12/12/24
PCBs		

Note: 1234 FBW collected at 0831

Pre-purge Water Elevation: 11.81 (BTIC)

Intake Elevation: 34 (BTIC)

Screened Interval: 29-39 (BTIC)

TIC Elevation: 185.44 (FT)

Depth of Well: 39 (FT)

Final Water Elevation: 12.39 (BTIC)

Pump used: Waterra / Peristaltic / Grundfos / Bailer

Temp: 29 (°F)

Wind: 12 (mph) Direction: SW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0729	12.51		150	9.3	33	1.284	7.22	-63.0	106	
0734	12.22		150	8.2	31	1.263	7.26	-69.3	107	
0739	12.22		150	8.0	29	1.265	7.26	-68.6	106	
0744	12.23		150	8.1	26	1.256	7.27	-68.6	110	
0749	12.29		150	8.2	24	1.254	7.28	-67.3	113	
0754	12.32		150	8.3	22	1.249	7.28	-66.7	115	
0759	12.36		150	8.2	20	1.245	7.29	-65.7	122	* Stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.5

Comments: Initial flowrate ~450mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-9-24

Well ID: MW-52

Sampler(s): BC

Analyte Collected		Time/Date
FCN	✓	1124
Fluoride	✓	12-10-24
Sulfate	✓	
PCBs	✓	

Note

Pre-purge Water Elevation: 12.29 (BTIC)

Intake Elevation: 20 (BTIC)

Screened Interval: 13-23 (BTIC)

TIC Elevation: 183.02 (FT)

Depth of Well: 23.1 (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 24 (°F)

Wind: 10-20 (mph) Direction: ENE

YSI #: 4

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1235	13.78		150	9.1	34.2	1.578	7.15	158.2	6.9	
1240	14.46		150	9.3	28.6	1.568	7.21	143.6	12.4	
1245	15.59		150	9.7	18.9	1.579	7.25	137.3	8.38	
~~1250~~										
~~1255~~										
~~1300~~										
12-10-24										
1124	16.33		150	8.5	14.1	1.504	7.48	209.5	0.02	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.0

Comments

Pump down to intake at 1245 - 400 ml/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/11/24

Well ID: MW-54

Sampler(s): EDP

Analyte Collected		Time/Date
FCN		1447
Fluoride		12/11/24
Sulfate		
PCBs		

Note:

Pre-purge Water Elevation: 23.87 (BTIC)

Intake Elevation: 43 (BTIC)

Screened Interval: 35-45 (BTIC)

TIC Elevation: 184.87 (FT)

Depth of Well: 47.9 (FT)

Final Water Elevation: 25.97 (BTIC)

Pump used: Waterra / Peristaltic / Grundfos / Bailer

Temp: 40 (°F)

Wind: 2 (mph) Direction: NE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1356	25.14		175	8.8	22	0.783	8.00	36.2	71.5	
1401	25.14		175	8.6	23	0.780	8.00	36.5	73.1	
1406	25.16		175	8.5	22	0.790	7.99	34.6	71.1	
1411	25.26		175	8.5	19	0.797	7.97	33.6	59.0	
1416	25.32		175	8.6	17	0.801	7.97	31.6	54.0	
1421	25.44		175	8.5	16	0.803	7.94	21.1	59.1	
1426	25.52		175	8.4	15	0.805	7.95	6.9	40.1	
1430	25.56		175	8.4	14	0.805	7.95	2.6	36.3	
1434	25.61		175	8.4	13	0.805	7.95	-0.5	36.8	*Sampled

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 3.0

Comments

Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/11/24

Well ID: MW-55

Sampler(s): EDP

Analyte Collected		Time/Date
FCN	✓	1151 12/11/24
PCBs	✓	

Note: 12325BW collected at MW2

Pre-purge Water Elevation: 16.56 (BTIC)

Intake Elevation: 26 (BTIC)

Screened Interval: 15-30 (BTIC)

TIC Elevation: 176.53 (FT)

Depth of Well: 32.97 (FT)

Final Water Elevation: 20.29 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 39 (°F)

Wind: 2 (mph) Direction: NE

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
1106	19.50		300	9.7	10	1.085	7.12	-60.8	25	
1111	19.59		300	9.7	10	1.084	7.14	-58.3	28.7	
1116	19.68		300	9.5	10	1.085	7.14	-58.4	25.6	
1121	19.82		300	9.6	9	1.086	7.14	-59.7	4.4	
1126	19.91		300	9.5	9	1.087	7.14	-60.5	19.4	
1131	20.00		300	9.5	8	1.087	7.14	-61.5	14.3	
1136	20.09		300	9.5	8	1.088	7.14	-61.7	15.5	
1139	20.14		300	9.4	8	1.088	7.14	-61.1	9.24	#Stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 4.75

Comments: Initial flowrate ~500mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/4/24

Well ID: MW-56

Sampler(s): CDP

Analyte Collected		Time/Date
FCN ✓		1051 12/4/24
Fluoride ✓		
Sulfate ✓		

Note: FB collected at 1012

Pre-purge Water Elevation: 6.10 (BTIC)

Intake Elevation: 22 (BTIC)

Screened Interval: 15-25 (BTIC)

TIC Elevation: 239.42 (FT)

Depth of Well: 25 (FT)

Final Water Elevation: 10.13 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 28 (°F)

Wind: 9 (mph) Direction: S

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0920	6.10		250	10.4	11	1.332	7.06	-15.9	35.3	
0925	9.72		175	10.0	12	1.335	7.07	-34.7	27.5	
0930	10.04		175	10.0	11	1.330	7.07	-45.6	22.5	
0935	10.12		175	9.9	11	1.328	7.06	-49.8	18.4	
0940	10.09		150	9.7	13	1.306	7.07	-47.9	17.0	
0945	10.09		150	9.7	13	1.301	7.07	-47.5	15.9	
0950	10.09		150	9.8	13	1.303	7.07	-47.5	15.5	# stable

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 2.5

Comments: Initial flowrate ~ 400 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/2/24

Well ID: PZ-44

Sampler(s): EDP

Analyte Collected		Time/Date
FCN ✓		1201 12/4/24
Fluoride ✓		
Sulfate ✓		
PCBs ✓		

Note

Pre-purge Water Elevation: (BTIC)

Intake Elevation: 5.01 (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: 229.63 (FT)

Depth of Well: 16.69 (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 26 (°F)

Wind: 5 (mph) Direction: NW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0933	8.64		175	6.9	15	2.026	7.08	86.4	88.7	
0938	13.45		150	7.6	20	2.033	7.12	50.7	359	
0943	dry		150	8.7	14	1.997	7.13	39.1	1000	ran dry
1155	4.98		100	6.2	76.8	1.670	7.05	236.4	41.2	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 1.25

Comments

Initial flowrate ~450 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: PZ-45

Sampler(s): E DP

Analyte Collected		Time/Date
FCN ✓		0930 12/5/24
Fluoride ✓		
Sulfate ✓		
PCBs ✓	only 1	

Note

Pre-purge Water Elevation: 5.51 (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: 228.68 (FT)

Depth of Well: 14.83 (FT)

Final Water Elevation: 14.12 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 26 (°F)

Wind: S (mph) Direction: NW

YSI #: S

Turbiditymeter #: S

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0905	12.69		225	8.0	18	1.871	7.29	3.5	627	
0910	dry		150	8.7	12	1.794	7.23	-52.2	94.8	well ran dry
1151	10.43									not enough to sample
0935	7.93		200	7.8	51	1.989	7.41	156.9	96.3	12/5/24

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 0.75

Comments

Initial flowrate ~350 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/3/24

Well ID: PZ-46

Sampler(s): EDP

Analyte Collected		Time/Date
FCN ✓		1143
Fluoride ✓		
Sulfate ✓		
PCBs		

Note: Ran dry after 5 minutes

Pre-purge Water Elevation: 5.7 (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: 228.36 (FT)

Depth of Well: 10.37 (FT)

Final Water Elevation: 9.87 (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 25 (°F)

Wind: S (mph) Direction: WNW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
			~~75~~	~~5.0~~						
			~~75~~							
1138	6.9		75	5.0	84.6	1.742	7.41	245.7	52.0	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal): 0.75

Comments: Initial Flow rate ~350 mL/min

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-4-24

Well ID: SLPWETE

Sampler(s): JL

Analyte Collected		Time/Date
FCN ✓		1220
Fluoride ✓		12-4-24
Sulfate ✓		
PCBs ✓		

Note: Grab

Pre-purge Water Elevation: (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 20 (°F)

Wind: 10-20 (mph) Direction: S

YSI #: 5

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
				1.4	81	0.517	7.78	52.5	16.9	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal):

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12-4-24

Well ID: SLPWETW

Sampler(s): B

Analyte Collected		Time/Date
FCN ✓		1155 12-4-24
Fluoride ✓		
Sulfate ✓		
PCBs ✓		

Note: 6-mb

Pre-purge Water Elevation: (BTIC)

Intake Elevation: (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 28 (°F)

Wind: 10-20 (mph) Direction: S

YSI #: 5

Turbiditymeter #: 4

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
				1.4	17	0.4480	7.39	-73.6	10.9	

Volume Calculation

PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal):

Comments

CDM Smith
listen. think. deliver.

Project: Reynolds December Groundwater Sampling (Page of)

Date: 12/6/24

Well ID: FDRAIN

Sampler(s): EJP

Analyte Collected		Time/Date
FCN	✓	0715 12/6/24
Fluoride	✓	
Sulfate	✓	

Note: Grab

Pre-purge Water Elevation: 16.61 (BTIC)

Intake Elevation: — (BTIC)

Screened Interval: --- (BTIC)

TIC Elevation: --- (FT)

Depth of Well: --- (FT)

Final Water Elevation: (BTIC)

Pump used: Waterra | Peristaltic | Grundfos | Bailer

Temp: 17 (°F)

Wind: 12 (mph) Direction: WNW

YSI #: 5

Turbiditymeter #: 5

Time	Water Level (ft btic)	Drawdown (ft)	Flow Rate (mL/min)	Temperature (ºC)	DO (%)	Specific Conductivity (ms/cm)	pH (SU)	ORP (mV)	Turbidity (NTU)	Note
Stabilization Guidance		< 0.3 foot	± 3 %	± 3 %	± 10 %	± 3 %	± 10 %	±10 mV	± 10 %	
0720	16.61		200	2.1	6.6	0.929	7.38	297.4	3.25	

Volume Calculation				
PIPE SIZE	1.25"	2"	4"	6"
C.F.	0.08	0.17	0.66	1.5

1 VOLUME = (INTAKE ELEVATION - WATER ELEVATION) X C.F.

Volume Purged (gal):

Comments

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Rd Suite 1 Massena NY
Phone: 315-296-9003
Fax:
Email: glosengerjc@cdmsmith.com

Project Information

Project Name: Reynold GW Sampling Dec 2024
Project Location: Massena NY
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ **Done**
☐ **Lab to do**
Preservation
☐ **Lab to do**
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	EDP FCN	Fluoride/Sulf	PCBs	Total Bottle	Sample Specific Comments
	MW-11SB-1224	12/3/24	1359	water	EDP	X	X	X		
	MW-30S-1224	12/3/24	0905	water	JCG	X	X	X		
	MW-39S-1224	12/3/24	1245	water	BC	X	X	X		
	MW-45-1224	12/3/24	1420	water	BC	X	X	X		
	MW-1224-1224FBW	12/3/24	1409	water	EDP		X	X		
	MW-12S-1224	12/4/24	0759	water	EDP		X	X		
	MW-12S-1224MS	12/4/24	0759	water	EDP		X	X		
	MW-12S-1224MSD	12/4/24	0759	water	EDP		X	X		
	MW-13S-1224	12/4/24	0838	water	EDP		X	X		
	MW-23-85S-1224	12/4/24	0909	water	JCG		X	X		
					Container Type	P	P	A		
					Preservative		A	A		

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Posadas	12/4/24 1430		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 3

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Rd Suite 2 Massena NY 13662
Phone: 315 296 9003
Fax:
Email: gloscenger jc@cdmsmith.com

Project Information

Project Name: Reynolds GW Sampling December 2024
Project Location: H6497 NY
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride/Sulfate	PCBs							Total Bottle	Sample Specific Comments
	MW-56-1224	12/4/24	1001	water	EDP	X									
	MW-1233-1224FBW	12/4/24	1012	water	EDP	X	X								
	MW-20-855-1224	12/4/24	1033	water	EDP	X	X								
	MW-10S-1224	12/4/24	1100	water	EDP	X	X								
	MW-10S-1224 MS	12/4/24	1100	water	EDP	X	X								
	MW-10S-1224MSD	12/4/24	1100	water	EDP	X	X								
	MW-14S-1224	12/4/24	1016	water	JC6	X	X								
	MW-82 EDP PZ-46-1224	12/4/24	1143	water	EDP	X	~~X~~								no PCBs
	SLPWETW-1224	12/4/24	1155	water	BC	X	X								
	SLPWETE-1224	12/4/24	1220	water	BC	X	X								
					Container Type	P	A								
					Preservative	A	A								

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Posadas	12/4/24 1430		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1
3 of 3

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Rd Suite 2 Massena, NY 13662
Phone: 315 296 9006
Fax:
Email: gloesengerjc@cdmsmith.com

Project Information

Project Name: Reynolds GW Sampling December 2024
Project Location: Massena, NY
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride/Sulfate	PCBs							Sample Specific Comments	Total Bottle
	PZ-44-1224	12/4/24	1201	water	EDP	x	x								
Container Type						P	A								
Preservative						A	A								

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Daniel Posadas	12/4/24 1430		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: EDP/JCG/BC	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No:
Client Contact: Joshua Glosenger	Phone: (315) 296-9003	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 2
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #:			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #: 116497			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
				Water					
MW-11SR-1224	12/3/24	1359	G	Water			X		
MW-30S-1224	12/3/24	0905	G	Water			X		
MW-39S-1224	12/3/24	1245	G	Water			X		
MW-45-1224	12/3/24	1420	G	Water			X		
MW-1227-1224 FBW	12/3/24	1409	G	Water			X		
MW-12S-1224	12/4/24	0759	G	Water			X		
MW-12S-1224 MS	12/4/24	0759	G	Water		X	X		
MW-12S-1224 MSD	12/4/24	0759	G	Water		X	X		
MW-13S-1224	12/4/24	0838	G	Water			X		
MW-23-85S-1224	12/4/24	0909	G	Water			X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: EDP/JCG/BC	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No:
Client Contact: Joshua Glosenger	Phone: (315) 296-9003	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin:	Page: Page 1 of 2
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #:			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #: 116497			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free + Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-56-1224	12/4/24	1001	G	Water			X		
MW-1233-1224FBW	12/4/24	1012	G	Water			X		
MW-20-85s-1224	12/4/24	1033	G	Water			X		
~~MW-105-85s~~ MW-105-1224	12/4/24	1100	G	Water			X		
MW-105-1224MS	12/4/24	1100	G	Water		X	X		
MW-105-1224MSD	12/4/24	1100	G	Water		X	X		
MW-145-1224	12/4/24	1016	G	Water			X		
PZ-46-1224	12/4/24	1143	G	Water			X		
SLPWETW-1224	12/4/24	1155	G	Water			X		
SLPWETE-1224	12/4/24	1220	G	Water			X		
PZ-44-1224	12/4/24	1201	G	Water			X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

CoC ✓
BC

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Rd Suite 2 Massena, NY 13662
Phone: 315 296 9003
Fax:
Email: gloesenger jc@cdmsmith.com

Project Information

Project Name: Reynolds GW Sampling December 2024
Project Location: Massena NY
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ **Done**
☐ **Lab to do**
Preservation
☐ **Lab to do**
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride/Sulfate	PCBs							Sample Specific Comments
	MW-31SR-1224	12/4/24	1231	water	JCG	x	x							
	MW-40S-1224	12/4/24	1325	water	BC	x	x							
	MW-18S-1224	12/4/24	1420	water	JCG	x	x							
	MW-1224-1224 BD	12/4/24	1430	water	JCG	x	x							
	MW-27S-1224	12/5/24	0731	water	EDP	x	x							
	MW-1228-1224F BW	12/5/24	0757	water	EDP	x	x							
	MW-15S-87-1224	12/5/24	0859	water	EDP	x	x							
	PZ-45-1224	12/5/24	0930	water	EDP	x	x							
	MW-26S-1224	12/5/24	0958	water	JCG	x	x							only 7 PCB bottle

Container Type: P A
Preservative: A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	12/5/24 1200		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

COC ✓ 3°

eurofins | Environment Testing

Client Information	Sampler: EDP/JC6/BC	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No:
Client Contact: Joshua Glosenger	Phone: 315-296 9003	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: NY	Page: Page of
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116497			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #:			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-31SR-1224	12/4/24	1231	G	Water			X		
MW-40S-1224	12/4/24	1325	G	Water			X		
MW-18S-1224	12/4/24	1420	G	Water			X		
MW-1224-1224 ~~FB~~ EDP BD	12/4/24	1430	G	Water			X		
MW-27S-1224	12/5/24	0731	G	Water			X		
MW-1228-1224FBW	12/5/24	0757	G	Water			X		
MW-15S-87-1224	12/5/24	0859	G	Water			X		
PZ-45-1224	12/5/24	0930	G	Water			X		
MW-26S-1224	12/5/24	0958	G	Water			X		
				Water					
				Water					

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Daniel Posadas	12/5/24 1200	CDM Smith			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2576753

Cooler Temperature(s) °C and Other Remarks:

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

NEW YORK CHAIN OF CUSTODY

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 highland Rd Suite 1
Massena NY 13662
Phone: (315) 296-9093
Fax:
Email: glosengerjc@cdmsmith.com

Project Information

Project Name: Reynold GW December 2024
Project Location: Massena NY
Project #
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	F-300, SO4	NYTCL-8082							Total Bottle
	MW-16S-1224	12/6/24	07:30	water	JCG	X	X							
	MW-1229-1224 FDW	12/6/24	07:35	water	JCG	X	X							
	MW-17S-1224	12/6/24	08:32	water	JCG	X	X							
	MW-19S-1224	12/6/24	06:35	water	EDP	X	X							
	MW-28S-1224	12/6/24	09:38	water	JCG	X	X							
	MW-44-1224	12/6/24	10:05	water	JCG	X	X							
	FDrain-1224	12/6/24	07:15	water	EDP	X								
Container Type						P	A							
Preservative						A	A							

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Sample Specific Comments

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Josh Glosenger	12/6/24 11:18		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

COC - 1 of 1

Page 1 of 2

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Rd Suite 1 Massena, NY 13662
Phone: 315 296-9003
Fax:
Email: posadasmillaed@cdmsmith.com

Project Information

Project Name: Reynolds GW Sampling December 2024
Project Location: Massena, NY
Project # 116498
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride/Sulfate	PCBs							Sample Specific Comments
	MW-41-1224	12/9/24	0933	water	EDP	x	x							
	MW-43-1224	12/9/24	1106	water	EDP	x	x							
	MW-1230-1224FBW	12/9/24	1126	water	EDP	x	x							
	MW-37-1224	12/9/24	1551	water	EDP	x	x							
	MW-42-1224	12/10/24	0843	water	EDP	x	x							
	MW-1231-1224FBW	12/10/24	0901	water	EDP	x	x							
	MW-50-1224	12/10/24	1100	water	BC	x	x							
	MW-52-1224	12/10/24	1124	water	BC	x	x							
					Container Type	P	A							
					Preservative	A	A							

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	12/10/24 1400		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

cor 1/31

eurofins | Environment Testing

Client Information	Sampler: JC6/EDB/BC	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No:
Client Contact: Joshua Glosenger	Phone: 315 296-9003	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 2
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116498			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #:			
Site: Reynolds	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-42-1224	12/10/24	0843	G	Water			X		
MW-1231-1224 FBW	12/10/24	0901	G	Water			X		
MW-50-1224	12/10/24	1100	G	Water			X		
MW-52-1224	12/10/24	1124	G	Water			X		
MW-335-1224	12/10/24	1205	G	Water			X		
MW-36-1224	12/10/24	1151	G	Water			X		
MW-36-1224 MS	12/10/24	1151	G	Water		X	X		
MW-36-1224 MSD	12/10/24	1151	G	Water		X	X		
MW-1225-1224 BD	12/10/24	1221	G	Water			X		
				Water					
				Water					

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Daniel Posadas	Date/Time: 12/10/24 1400	Company: CDM Smith	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 2576751 / 7529793	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

COC v 7L

eurofins | Environment Testing

Client Information	Sampler: JCG / EDP / BC	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No:
Client Contact: Joshua Glosenger	Phone: (315) 296-9003	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 2
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-298-9012(Tel)	PO #: 116498			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #:			
Site: Reynolds	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	X	
MW-16S-1224	12/6/24	07:30	G	Water			X		
MW-1229-1224 FBW	12/6/24	07:35	G	Water			X		
MW-17S-1224	12/6/24	08:22	G	Water			X		
MW-19S-1224	12/6/24	06:35	G	Water			X		
MW-28S-1224	12/6/24	09:38	G	Water			X		
MW-44-1224	12/6/24	10:05	G	Water			X		
FDRAIN-1224	12/6/24	07:15	G	Water			X		
MW-41-1224	12/9/24	0933	G	Water			X		
MW-43-1224	12/9/24	1106	G	Water			X		
MW-1230-1224FBW	12/9/24	1126	G	Water			X		
MW-37-1224	12/9/24	1551	G	Water			X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Daniel Posadas	12/10/24 1400	CDM Smith			

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 2576751 / 2538293	Cooler Temperature(s) °C and Other Remarks:

Ver: 06/08/2021

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information
Client: CDM Smith
Address: 4 Highland Rd Suite 1
Massena, NY 13662
Phone: 315 296 9003
Fax:
Email: PosadasMillaeda@cdmsmith.com

Project Information
Project Name: Reynolds GW Sampling December 2024
Project Location: Massena, NY
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information
☐ Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride/Sulfate	PCBs	Total Bottle	Sample Specific Comments
	MW-36-1224	12/10/24	1151	water	EDP	x	x	3	
	MW-36-1224MS	12/10/24	1151	water	EDP	x	x	3	
	MW-36-1224MSD	12/10/24	1151	water	EDP	x	x	3	
	MW-1225-1224BD	12/10/24	1221	water	EDP	x	x	3	
	MW-38-1224	12/11/24	0851	water	EDP	x	x	3	
	MW-55-1224	12/11/24	1151	water	EDP	~~x~~	x	2	no F-300 or SO4 samp
	~~MW-1232FBW EDP~~	—	—	—					
	MW-1232-1224FBW	12/11/24	1212	water	EDP	x	x	3	
	MW-49-1224	12/10/24	1548	water	EDP	x	x	3	

Container Type: P A
Preservative: A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	12/11/24 1330		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

Page 1 of

Date Rec'd in Lab

ALPHA Job #

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

COC 1 of 1

Client Information

Client: CDM Smith
Address: 4 Highland Rd Suite 2 Massena, NY 13662
Phone: 315 296 9003
Fax:
Email: posadasmillaed@cdmsmith.com

Project Information

Project Name: Reynolds GW Sampling December 2024
Project Location: Massena, NY
Project # 116492
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information

☐ Same as Client Info
PO #

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
☐ NJ ☐ NY
☐ Other:

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

Total Bottle

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride/Sulfate	PCBs	Sample Specific Comments
	MW-54-1224	12/11/24	1447	water	EDP	X	X	
	MW-22-85S-1224	12/11/24	1611	water	EDP	X	X	
	MW-51-1224	12/12/24	0805	water	EDP	X	X	
	MW-1234-1224 FBW	12/12/24	0831	water	EDP	X	X	
	MW-11SR-1224	12/12/24	0941	water	EDP		X	
	MW-48-1224	12/12/24	1031	water	EDP	X	X	
	MW-355R-1224	12/12/24	0925	water	BC	X	X	
	MW-395-1224	12/12/24	1055	water	BC		X	

Container Type	P	A
Preservative	A	A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Phil Mills	12/12/24 1200		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-9288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab

ALPHA Job #

Client Information

Client: CDM Smith
Address: 4 Highland Rd Suite 1 Massena, NY 13662
Phone: 315 296 9003
Fax:
Email: posadasmillaed@cdmsmith.com

Project Information

Project Name: Reynolds GW Sampling December 2024
Project Location: Massena, NY
Project # 116497
(Use Project name as Project #) ☐
Project Manager: Candace Fox
ALPHAQuote #:

Turn-Around Time

Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Billing Information

☐ Same as Client Info
PO #

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Fluoride/Sulfate	PCBs	Total Bottle	Sample Specific Comments
	MW-30S-1224	12/12/24	1348	water	EDP		X		
	MW-03S-1224	12/13/24	1120	water	BC	X	X		
	MW-1235-1224 FBW	12/13/24	1101	water	EDP	X	X		

Container Type: P | A
Preservative: A | A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	12/13/24 1230		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 01-25 (rev. 30-Sept-2013)

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: EDP/BC	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No:
Client Contact: Joshua Glosenger	Phone: 315-296-9003	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 2
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116497			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #:			
Site: Reynolds	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-49-1224	12/10/24	1548	G	Water			X		
MW-38-1224	12/11/24	0851	G	Water			X		
MW-55-1224	12/11/24	1151	G	Water			X		
MW-1232-1224 FBW	12/11/24	1242	G	Water			X		
MW-54-1224	12/11/24	1447	G	Water			X		
MW-22-85S-1224	12/11/24	1611	G	Water			X		
MW-51-1224	12/12/24	0865	G	Water			X		
MW-1234-1224FBW	12/12/24	0831	G	Water			X		
MW-35SR-1224	12/12/24	0925	G	Water			X		
MW-48-1224	12/12/24	1031	G	Water			X		
MW-34S-1224	12/12/24	0912	G	Water			X		

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Daniel Posadas	12/13/24 1300	CDM Smith			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

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

Eurofins Pittsburgh
301 Alpha Drive RIDC Park
Pittsburgh, PA 15238
Phone: 412-963-7058 Fax: 412-963-2468

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: EDP/BC	Lab PM: Johnson, Andy	Carrier Tracking No(s):	COC No:
Client Contact: Joshua Glosenger	Phone: 315-296-9003	E-Mail: Andy.Johnson@et.eurofinsus.com	State of Origin: NY	Page: Page 2 of 2
Company: CDM Smith Inc	PWSID:			Job #:
Address: 4 Highland Road Suite 1	Due Date Requested:			
City: Massena	TAT Requested (days):			
State, Zip: NY, 13662	Compliance Project: Δ Yes Δ No			
Phone: 315-296-9012(Tel)	PO #: 116497			
Email: glosengerjc@cdmsmith.com	WO #:			
Project Name: Reynolds Facility	Project #:			
Site: Reynolds	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	1677_Free - Free Cyanide by 1677	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
MW-03S-1224	12/13/24	1120	G	Water			X		
MW-1235-1224fBW	12/13/24	1101	G	Water			X		
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					
				Water					

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

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

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

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

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Daniel Posadas	12/13/24 1300	CDM Smith			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 2356 596

Cooler Temperature(s) °C and Other Remarks:

Pre-sampling Checklist

Sampling Event: Reynolds Dec samp **Checked by:** EDP

Date Checked: 12/3/24

This checklist to be completed and submitted with sampling documentation.

Items	Is the item accounted for?	Is more of this Item needed?	If more of any item needs to be ordered, how much?
	Y/N - NA	Y/N - NA	Describe individually
Nitrile gloves	Y		
Clipboard	Y		
Field sheets	Y		
Sampling Email	Y		
COCs	Y		
COC plastic bag	Y		
Pen/markers	Y		
Blank lables	Y		
Bottles/lables	Y		
Coolers	Y		
Water tape	Y		
Peristaltic pump	Y		
Extra peristaltic battery	Y		
YSI	Y Y N		
Extra YSI battery	Y		
Turbidimeter	Y Y N		
Extra Turbidimeter battery	Y		
Waterra pump	Y		
Flex tubing	Y		
HDPE tubing	Y		
Purge bucket	Y Y N		
Generator	Y		
Extention cord	Y		
Gasoline	NA		
Sampling kit	Y Y N		
Tubing cutters	Y Y N		
DI water	Y		
Graduated cylinder	Y Y N		
(Optional)			
Foldout table			
Ice Packs (warm weather)			
Canopy			

Are any sampling supplies needed (tubing, foot valves, meters)?	Y	(N)
Is there enough calibration solution to complete the sampling event?	(Y)	N
If No, what solution is needed?		
Is all powered equipment in working condition?	(Y)	N
Has the project manager been notified verbally and in writing?	(Y)	N

Pre-sampling Checklist

Sampling Event: Reynolds Dec Samp **Checked by:** EDP
Date Checked: 12/5/24

This checklist to be completed and submitted with sampling documentation.

Items	Is the item accounted for?	Is more of this Item needed?	If more of any item needs to be ordered, how much?
	Y/N - NA	Y/N - NA	Describe individually
Nitrile gloves	Y		
Clipboard	Y		
Field sheets	Y		
Sampling Email	Y		
COCs	Y		
COC plastic bag	Y		
Pen/markers	Y		
Blank lables	Y		
Bottles/lables	Y		
Coolers	Y		
Water tape	Y		
Peristaltic pump	Y		
Extra peristaltic battery	Y		
YSI	Y | Y	|	| |
Extra YSI battery	Y		
Turbidimeter	Y | Y	|	| |
Extra Turbidimeter battery	Y		
Waterra pump	NA		
Flex tubing	Y		
HDPE tubing	Y		
Purge bucket	Y		
Generator	NA		
Extention cord	NA		
Gasoline	NA		
Sampling kit	Y		
Tubing cutters	Y		
DI water	Y		
Graduated cylinder	Y		
(Optional)			
Foldout table	NA		
Ice Packs (warm weather)	NA		
Canopy	NA		

Are any sampling supplies needed (tubing, foot valves, meters)?	Y	(N)
Is there enough calibration solution to complete the sampling event?	Y	(N)
If No, what solution is needed?		
Is all powered equipment in working condition?	(Y)	N
Has the project manager been notified verbally and in writing?	(Y)	N

Pre-sampling Checklist

Sampling Event: May December GW Sampling **Checked by:** EDP
Date Checked: 12/6/24

This checklist to be completed and submitted with sampling documentation.

Items	Is the item accounted for?	Is more of this Item needed?	If more of any item needs to be ordered, how much?
	Y/N - NA	Y/N - NA	Describe individually
Nitrile gloves	Y		
Clipboard	Y		
Field sheets	Y		
Sampling Email	Y		
COCs	Y		
COC plastic bag	Y		
Pen/markers	Y		
Blank lables	Y		
Bottles/lables	Y		
Coolers	Y		
Water tape	Y		
Peristaltic pump	Y		
Extra peristaltic battery	Y		
YSI	Y / Y		
Extra YSI battery	Y		
Turbidimeter	Y / Y		
Extra Turbidimeter battery	~~NA~~ Y		
Waterra pump	~~Y~~ NA		
Flex tubing	Y		
HDPE tubing	Y		
Purge bucket	~~NA~~ Y		
Generator	NA		
Extention cord	NA		
Gasoline	NA		
Sampling kit	Y		
Tubing cutters	Y		
DI water	Y		
Graduated cylinder	Y		
(Optional)			
Foldout table	NA		
Ice Packs (warm weather)	NA		
Canopy	NA		

Are any sampling supplies needed (tubing, foot valves, meters)?	Y	(N)
Is there enough calibration solution to complete the sampling event?	Y	(N)
If No, what solution is needed? 1 set of everything		
Is all powered equipment in working condition?	(Y)	N
Has the project manager been notified verbally and in writing?	(Y)	N

Pre-sampling Checklist

Sampling Event: Reynolds Dec Samp **Checked by:** CDP

Date Checked: 12/9/24

This checklist to be completed and submitted with sampling documentation.

Items	Is the item accounted for?	Is more of this Item needed?	If more of any item needs to be ordered, how much?
	Y/N - NA	Y/N - NA	Describe individually
Nitrile gloves	Y		
Clipboard	Y		
Field sheets	Y		
Sampling Email	Y		
COCs	Y		
COC plastic bag	Y		
Pen/markers	Y		
Blank lables	Y		
Bottles/lables	Y		
Coolers	Y		
Water tape	Y		
Peristaltic pump	Y		
Extra peristaltic battery	Y		
YSI	Y | Y		
Extra YSI battery	Y		
Turbidimeter	Y | Y		
Extra Turbidimeter battery	Y		
Waterra pump	Y		
Flex tubing	Y		
HDPE tubing	Y		
Purge bucket	Y		
Generator	Y		
Extention cord	Y		
Gasoline	Y		
Sampling kit	NA		
Tubing cutters	Y		
DI water	Y		
Graduated cylinder	Y		
(Optional)			
Foldout table	NA		
Ice Packs (warm weather)	NA		
Canopy			

Are any sampling supplies needed (tubing, foot valves, meters)?	Y	N
Is there enough calibration solution to complete the sampling event?	Y	N
If No, what solution is needed?		
Is all powered equipment in working condition?	Y	N
Has the project manager been notified verbally and in writing?	Y	N

Pre-sampling Checklist

Sampling Event: Reynolds Samp **Checked by:** EDP

Date Checked: 12/12/24

This checklist to be completed and submitted with sampling documentation.

Items	Is the item accounted for?	Is more of this Item needed?	If more of any item needs to be ordered, how much?
	Y/N - NA	Y/N - NA	Describe individually
Nitrile gloves	Y		
Clipboard	Y		
Field sheets	Y		
Sampling Email	Y		
COCs	Y		
COC plastic bag	Y		
Pen/markers	Y		
Blank lables	Y		
Bottles/lables	Y		
Coolers	Y		
Water tape	Y		
Peristaltic pump	Y		
Extra peristaltic battery	Y		
YSI	Y Y		
Extra YSI battery	Y		
Turbidimeter	Y Y		
Extra Turbidimeter battery	Y		
Waterra pump	Y		
Flex tubing	Y		
HDPE tubing	Y		
Purge bucket	Y		
Generator	Y		
Extention cord	Y		
Gasoline	Y		
Sampling kit	Y		
Tubing cutters	Y		
DI water	Y		
Graduated cylinder	Y		
(Optional)			
Foldout table	NA		
Ice Packs (warm weather)	NA		
Canopy	NA		

Are any sampling supplies needed (tubing, foot valves, meters)?	Y	(N)
Is there enough calibration solution to complete the sampling event?	(Y)	N
If No, what solution is needed?		
Is all powered equipment in working condition?	(Y)	N
Has the project manager been notified verbally and in writing?	(Y)	N

H&K 0.1
YSI #5

11.26.24
Turbidmeter 5

pH - 4
7
10

DO%

ORP

Cond

Turbidity

Reynolds GW 12/3/24

YSI # 4 Turbidity meter #4

pH - 4 → 3.48 - 4 < 0.10 - Pass
7 → 6.88 - 7 20 - Pass
10 → 10.32 - 10 100 - Pass
DO % → 100.2 → 95 → 100.2 800 - Pass
ORP → 220 → 207.5 → 220
Cond → 1.413 → 1.413 → 1.413

YSI #5 Turbidity meter #5

pH - 4 → 4.13 → 4 < 0.10 - Pass
7 → 7.12 → 7 20 - Pass
10 → 10.10 → 10 100 - Pass
DO % - 100.1 → 86.2 → 100.1 800 - Pass
ORP - 220 → 219.2 → 220
Cond - 1434 → 1413

Rental YSI # 8241 Turbidity meter #6

pH - 4 - 4.05 - 4 < 0.10 - Pass
7 - 7.07 → 7 20 - Pass
10 - 10.20 → 10 100 - Pass
DO % - 100.1 → 98.6 → 100.1 800 - Pass
ORP - 220 - 224.8 - 220
Cond - 1.346 → 1.413

Reynolds 12/4/24

YSI # 4 Turbidimeter #4

pH 4 → 4.01 - 4.00 <0.10 Pass
7 → 6.98 - 7.02 20 Pass
10 → 10.07 - 10.00 100 Pass
DO % → 99.9 → 98.3 800 Pass
Cond 1.413 → 1.392 → 1.413
ORP 220 → 219.6 - 220

YSI #5 Turbidimeter #5

pH 4 → 4.01 - 4.00 <0.10 - Pass
7 → 7.01 - 7.03 20 - Pass
10 → 10.01 - 10.07 100 - Pass
DO% → 99.9 → 98.0 800 - Pass
Cond → 1.413 → 1.400 → 1.413
ORP → 220 - 219.1 - 220

YSI Rental # 8241 Turbidimeter #6

pH 4 → 4.06 - 4.00 <0.10 pass
7 → 7.09 - 7.02 20 Pass
10 → 9.93 - 10.07 100 pass
DO% → 99.8 → 99.9 800 Pass
Cond → 1.413 → 1.401 → 1.413
ORP → 220 - 215.3 - 220

Reynolds 12/5/24

YSI #4 Turbidimeter #4

pH 4 → 4.05 → 4 <0.10 - Pass
7 → 7.05 → 7 20 - Pass
10 → 10.04 → 10 100 - Pass
Do % → 97.5 → 105.3 800 - Pass
Cond → 1.413 → 1.454
ORP → 220 → 221 - 220

YSI #5 Turbidimeter #5

pH 4 → 4.02 → 4 <0.10 - Pass
7 → 7.02 → 7 20 - Pass
10 → 9.99 → 10 100 - Pass
Do % → 97.5 → 98.9 800 - Pass
Cond → 1.413 → 1.347 → 1.413
ORP → 220 - 221.2 → 220

Rite in the Rain

14 Reynolds 12/6/24

YSI #4

pH 4 → 4.05 → 4

7 → 7.02 → 7

10 → 9.82 - 10

DO% → 99.5 → 96.8

ORP → 220 mv → 218.7 - 220

Cond → 1.413 → 1.369 → 1.413

YSI #5

pH 4 → 4 → 4

7 → 7.03 → 7

10 → 10.01 → 10

DO % → 99.5 → 101.8

ORP → 220 → 218.6 - 220

Cond → 1.413 → 1.472 → 1.413

Turbidimeter #4

< 0.10 - Pass

20 - Pass

100 - Pass

800 - Pass

Turbidimeter #5

< 0.10 - Pass

20 - Pass

100 - Pass

800 - Pass

Reynolds 12/9/24 15

YSI #4 Turbidity Meter #4

pH 4 - 3.95 - 4.00

7 - 6.98 - 7.03

10 - 10.01 - 10.09

ORP 220 - 220.4 - 220

Spec Cond 1.413 - 1.460 - 1.413

DO%. 99.8 - 92.1 - 99.8

Turbidity < 0.10 Pass

20 Pass

100 Pass

800 Pass

YSI #5 Turbidity Meter #5

pH 4 - 3.99 - 4.00

7 - 7.01 - 7.03

10 - 9.96 - 10.06

ORP 220 - 220.9 - 220

Spec Cond 1.413 - 1.419 - 1.413

DO%. 99.8 - 98.4 - 99.8

Turbidity < 0.10 Pass

20 Pass

100 Pass

800 Pass

16 Reynolds Samp 12/10/24

YSI #4 Turbidity meter #4

pH 4 -4.02-4.00
7 -7.02 -7.03
10 -10.03- 10.09

ORP 220-219.7 -220

Spec Cond 1.413 -1.422 -1.413

Do%. 99.5 -99.0-99.5

Turbidity <0.10 pass
20 pass
100 pass
800 pass

YSI #5 Turbidity Meter # 5

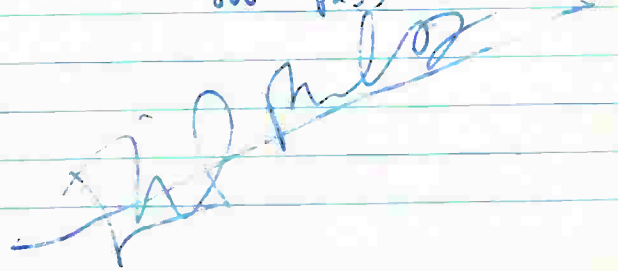
pH 4 -4.01 -4.00
7 -7.00 - 7.03
10 -10.00 -10.09

ORP 220 -219.6 -220

Spec Cond 1.413 -1.427-1.413

Do%. 99.5 -101.2-99.5

Turbidity <0.10 pass
20 pass
100 pass
800 pass



Reynolds Samp 12/11/24 17

YSI #4 Turbidity meter #4

pH 4 -4.00 -4.00
7 -7.00 -7.03
10 -10.05 -10.09

ORP 220 -219.7-220

Spec Cond 1.413 -1.367-1.413

Do%. 98.6 -81.5 -98.6

Turbidity <0.10 pass
20 Pass
100 Pass
800 Pass

YSI #5 Turbidity meter # 5

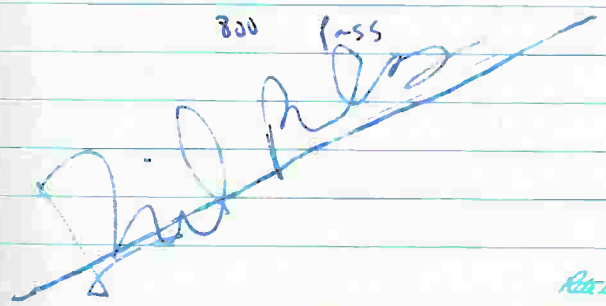
pH 4 -3.97 -4.00
7 -6.98-7.03
10 -10.00-10.09

ORP 220 -220.1-220

Spec Cond 1.413 -1.398-1.413

Do%. 98.6 -100.7-98.6

Turbidity <0.10 Pass
20 Pass
100 Pass
800 Pass



Reynolds Samp 12/12/24

YSI #4 Turbidity Meter #4

pH 4 - 3.98 - 4.00
7 - 6.97 - 7.04
10 - 9.99 - 10.09

ORP 220 - 220.3 - 220

Spec Cond 1.413 - 1.418 - 1.413

DO% 98.4 - 92.5 - 98.4

Turbidity <0.10 pass
20 pass
100 pass
800 pass

YSI #5 Turbidity Meter #5

pH 4 - 4.02 - 4.00
7 - 6.99 - 7.03
10 - 10.04 - 10.06

ORP 220 - 220.2 - 220

Spec Cond 1.413 - 1.407 - 1.413

DO% 98.4 - 99.8 - 98.4

Turbidity <0.10 pass
20 pass
100 pass
800 pass

Reynolds Samp 12/13/24

YSI #4 Turbidity Meter #4

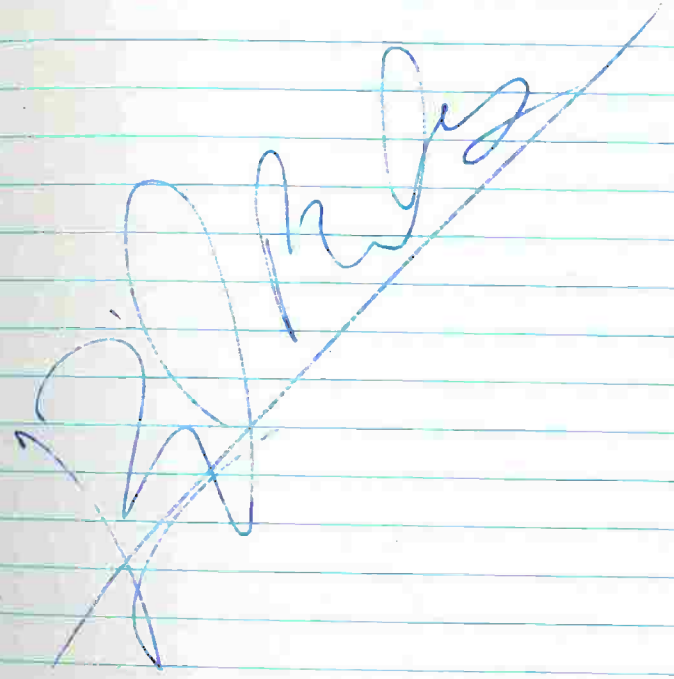
pH 4 - 4.02 - 4.00
7 - 7.02 - 7.03
10 - 10.02 - 10.10

ORP 220 - 220.4 - 220

Spec Cond 1.413 - 1.419 - 1.413

DO% 101.1 - 126.1 - 101.1

Turbidity <0.10 pass
20 pass
100 pass
800 pass



oil Samp 11/26/24

at 0801

alibrating at 0802

MW Yo-14x at 0812

collected at Yo-14x at 0935

TB collected at 0958

Site at 1333

Reynolds Dec Sampling 12/3/24

Calibrating at 0530

At MW-20-055 at 0802

FB collected at 1409

Offsite at 1431

y-old Sampling 12/4/14

alibrating at 0500

+ MW-15-8 at 0706 for grab
not enough water to sample

B collected at 1012

Reynolds Samp 12/5/14

Calibrating at 0500

At MW-27S at 0630

FB collected at 0757

Reynolds Samp 12/6/24

calibrating @ 0500

At MW-19s at 0631 for grab
FBW collected at 0735
Offsite at ~~11~~ 1102

Rey Samp 12/9/24

calibrating at 0500

At MW-41 at 0810

FBW 1230 at 1126

Offsite 1609

y Samp 12/10/24

alibrating at 0515

t MW-42 @ 0812
(performed daily inspections & potable inspections between)

B collected at 0901

ffsite to ship at 1151

t MW-49 at 1449

ffsite at 1607

Reynolds Samp 12/11/24

Calibrating at 0500

At MW-38 at 0707

1232 FBW collected at 1212

Offsite for shipping at 1221

Reynolds samp 12/12/14

Calibrating at 0500

+ MW-51 at 0701

FB 1234 collected at 0831

Reynolds samp 12/13/14

calibrating at 0630

EBW collected at 1101

Appendix C Historical Analytical Results

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-11SR	1999 Q1	0.39	< 0.01 U	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	3200
MW-11SR	1999 Q2	0.42	< 0.01 U	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	2900
MW-11SR	1999 Q3	0.22	< 0.01 U	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	3100
MW-11SR	1999 Q4	0.64	< 0.01 U	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	1900
MW-11SR	2000 Q1	2.3	< 0.01 U	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	2600
MW-11SR	2000 Q2	0.58	< 0.01 U	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	2200
MW-11SR	2000 Q3	0.49	< 0.01 U	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	2200
MW-11SR	2000 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	0.294	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1860
MW-11SR	2001 Q1	0.12	< 0.01 U	--	< 0.01 U	0.336	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1710.19
MW-11SR	2001 Q2	0.94	0.222	--	< 0.01 U	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1859.77
MW-11SR	2001 Q3	2.51	< 0.01 U	--	< 0.01 U	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201.74
MW-11SR	2001 Q4	0.33	< 0.01 U	--	< 0.01 U	0.379	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1570.9
MW-11SR	2002 Q1	0.1	< 0.01 U	--	< 0.01 U	0.308	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1665.55
MW-11SR	2002 Q2	0.16	< 0.01 U	--	< 0.01 U	0.286	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1518.64
MW-11SR	2002 Q3	0.16	< 0.01 U	--	< 0.01 U	0.391	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1622.13
MW-11SR	2002 Q4	0.16	< 0.01 U	--	< 0.01 U	0.372	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1179.98
MW-11SR	2003 Q1	1.082	< 0.01 U	--	< 0.01 U	0.354	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1487.37
MW-11SR	2003 Q2	0.273	< 0.01 U	--	< 0.01 U	0.348	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1562.88
MW-11SR	2003 Q3	4.552	< 0.01 U	--	< 0.01 U	0.344	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1322.15
MW-11SR	2003 Q4	0.052	< 0.01 U	--	< 0.01 U	0.358	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1314.33
MW-11SR	2004 Q1	3.233	< 0.01 U	--	< 0.01 U	0.295	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1322.56
MW-11SR	2004 Q2	0.581	< 0.01 U	--	< 0.01 U	0.316	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1105.91
MW-11SR	2004 Q3	0.672	< 0.01 U	--	< 0.01 U	0.376	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1200.76
MW-11SR	2004 Q4	6.464	< 0.01 U	--	< 0.01 U	0.41	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1032.48
MW-11SR	2005 Q1	9.085	< 0.01 U	--	< 0.01 U	0.4429	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	943.35
MW-11SR	2005 Q2	0.931	< 0.01 U	--	< 0.01 U	0.3766	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1090.35
MW-11SR	2005 Q3	2.331	< 0.01 U	--	< 0.01 U	0.3713	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	995.67
MW-11SR	2005 Q4	0.963	< 0.01 U	--	< 0.01 U	0.3459	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	572.92
MW-11SR	2006 Q1	0.314	< 0.01 U	--	< 0.01 U	0.26	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	748.1
MW-11SR	2006 Q2	0.186 J	< 0.01 U	--	< 0.01 U	0.3144	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	148.52
MW-11SR	2006 Q3	1.507	< 0.01 U	--	< 0.01 U	0.3402	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	928.55
MW-11SR	2006 Q4	1.333	< 0.01 U	--	< 0.01 U	0.3401	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	602.79
MW-11SR	2007 Q1	0.391	< 0.01 U	--	< 0.01 U	0.341	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	913.9
MW-11SR	2007 Q2	0.48	< 0.01 U	--	< 0.01 U	0.3366	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	892.04
MW-11SR	2007 Q3	4.898	< 0.01 U	--	< 0.01 U	0.3818	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	827.31
MW-11SR	2007 Q4	1.656	< 0.005 U	--	< 0.005 U	0.3022	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	700
MW-11SR	2008 Q1	7.57	< 0.01 U	--	< 0.01 UJ	0.3745	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	592
MW-11SR	2008 Q2	2.917 R	< 0.005 U	--	< 0.01 U	0.4099	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	786
MW-11SR	2008 Q3	2.713	< 0.005 U	--	< 0.01 U	0.3552	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	694
MW-11SR	2008 Q4	6.22	< 0.005 U	--	< 0.01 U	0.4102	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	698
MW-11SR	2009 Q1	11.9	< 0.01 UJ	--	< 0.01 UJ	0.33	--	--	--	< 0.505 U	< 0.505 U	< 0.505 U	< 0.505 U	--	--	--	488
MW-11SR	2009 Q2	7.74	< 0.01 U	--	< 0.01 U	0.4009	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	561
MW-11SR	2009 Q3	8.11	< 0.01 U	--	< 0.01 U	0.3126	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	585
MW-11SR	2009 Q4	3.251	< 0.01 U	--	< 0.01 U	0.3936	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	579
MW-11SR	2010 Q1	2.29	< 0.01 U	--	< 0.01 U	0.2855	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	556
MW-11SR	2010 Q2	1.39	< 0.01 U	--	< 0.01 U	0.284	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	564
MW-11SR	2010 Q3	3.181 J	< 0.01 U	--	< 0.01 U	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	534
MW-11SR	2010 Q4	10.42	< 0.01 U	--	< 0.01 U	0.3474	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	497
MW-11SR	2011 Q1	3.99	< 0.01 U	--	< 0.01 U	0.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	624
MW-11SR	2011 Q2	0.94	< 0.01 U	--	< 0.01 U	0.41	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	611
MW-11SR	2011 Q3	12.7	0.12	--	0.017	1.9	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	110
MW-11SR	2011 Q4	7.49	< 0.01 U	--	< 0.01 UJ	0.38	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	482
MW-11SR	2012 Q1	1.57	< 0.01 U	--	< 0.01 U	0.38 J	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	729
MW-11SR	2012 Q3	1.83 J	< 0.01 U	--	< 0.01 U	0.56	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	600
MW-11SR	2012 Q3	1.34	< 0.01 U	--	< 0.01 UJ	0.32	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	469
MW-11SR	2012 Q4	2.77	< 0.01 U	--	< 0.01 UJ	0.41	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	522
MW-11SR	2013 Q2	5.68	< 0.01 U	--	< 0.01 U	0.32 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	590
MW-11SR	2013 Q4	7.84 J	< 0.01 U	--	< 0.01 U	0.34	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	355

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-11SR	2014 Q2	1.97	< 0.01 U	--	< 0.01 U	0.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	502
MW-11SR	2014 Q4	2.68	< 0.01 U	--	< 0.01 U	0.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	314
MW-11SR	2015 Q3	0.32	< 0.01 U	--	--	0.33 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	453
MW-11SR	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-11SR	2015 Q4	0.24	< 0.01 U	--	< 0.01 U	0.37	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	349
MW-11SR	2016 Q2	0.415	< 0.005 U	--	--	0.39	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	480
MW-11SR	2016 Q4	0.386	0.002 J	--	< 0.01 U	0.315	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	433
MW-11SR	2017 Q2	0.162	< 0.005 U	--	< 0.01 U	0.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	483
MW-11SR	2017 Q4	1.28	< 0.005 U	--	< 0.01 U	0.312	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	355
MW-11SR	2018 Q2	0.508	< 0.005 U	--	< 0.01 U	0.304	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	458
MW-11SR	2019 Q1	0.44	< 0.005 U	--	< 0.01 U	0.308	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	309
MW-11SR	2019 Q2	0.81	< 0.005 U	--	< 0.01 UJ	0.288	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	300 J
MW-11SR	2019 Q4	0.456	0.004 J	--	< 0.01 UJ	0.47	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	303
MW-11SR	2020 Q2	0.189	< 0.005 U	--	< 0.01 U	0.473	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	424
MW-11SR	2020 Q4	0.274	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	231
MW-11SR	2021 Q2	0.338	0.056	--	0.013	2.64	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2920
MW-11SR	2021 Q4	0.279	< 0.005 U	--	< 0.01 U	0.336	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	232
MW-11SR	2022 Q2	0.141	0.002 J	--	< 0.01 U	0.258	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	344
MW-11SR	2022 Q4	0.208	< 0.005 U	--	< 0.01 U	0.264	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	235
MW-11SR	2023 Q2	--	--	< 0.002 U	--	0.301	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	461
MW-11SR	2023 Q4	--	--	< 0.006 U	--	0.29	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	258
MW-11SR	2024 Q2	--	--	< 0.002 U	--	0.738	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	312
MW-11SR	2024 Q4	--	--	< 0.002 U	--	0.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	170
MW-12S	1999 Q2	0.46	0.05	--	--	6.5	--	--	--	--	--	--	--	--	--	< 0.065 U	220
MW-12S	1999 Q3	5.7	0.05	--	--	7.5	--	--	--	--	--	--	--	--	--	< 0.065 U	340
MW-12S	1999 Q4	1	0.05	--	--	8.2	--	--	--	--	--	--	--	--	--	< 0.065 U	290
MW-12S	2000 Q1	2.2	0.06	--	--	8.2	--	--	--	--	--	--	--	--	--	< 0.065 U	290
MW-12S	2000 Q2	0.34	0.05	--	--	7	--	--	--	--	--	--	--	--	--	< 0.065 U	330
MW-12S	2000 Q3	0.8	0.05	--	--	7.5	--	--	--	--	--	--	--	--	--	< 0.065 U	420
MW-12S	2000 Q4	0.12	< 0.01 U	--	< 0.01 U	8.468	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	357
MW-12S	2001 Q1	0.39	0.049	--	< 0.01 U	8.233	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	319.53
MW-12S	2001 Q2	2.44	0.069	--	< 0.01 U	6.227	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	406.56
MW-12S	2001 Q3	0.71	0.062	--	0.01	6.69	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	406.77
MW-12S	2001 Q4	0.23	0.0855	--	0.013	11.01	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	424.67
MW-12S	2002 Q1	0.28	0.044	--	< 0.01 U	10.19	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	461.09
MW-12S	2002 Q2	0.29	0.073	--	< 0.01 U	9.073	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	456.15
MW-12S	2002 Q3	0.3	0.063	--	< 0.01 U	11.97	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	466.44
MW-12S	2002 Q4	0.286	0.063	--	< 0.01 U	10.69	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	495.65
MW-12S	2003 Q1	55.65	0.0575	--	0.013	9.798	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	400.184
MW-12S	2003 Q2	0.103	0.0685	--	0.0135	8.556	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	353.27
MW-12S	2003 Q3	0.212	0.07	--	0.0135	10.55	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	382.08
MW-12S	2003 Q4	5.777	0.0615	--	0.011	11.69	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285.99
MW-12S	2004 Q1	13.39	0.058	--	0.0185	9.071	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	370.14
MW-12S	2004 Q2	10.103	0.0705	--	0.019	10.8	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	346.07
MW-12S	2004 Q3	13.91	0.0605	--	0.0465	8.83	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	315
MW-12S	2004 Q4	7.731	0.0175	--	0.0165	12.88	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	409.32
MW-12S	2005 Q1	17.01	0.0435	--	0.014	7.345	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	363.82
MW-12S	2005 Q2	8.279	0.0615	--	0.016	12.52	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	370.07
MW-12S	2005 Q3	4.883	0.0155	--	0.0125	12.87	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	418.69
MW-12S	2005 Q4	6.791	0.072	--	0.0135	16.05	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	376.77
MW-12S	2006 Q1	12.35	0.0425	--	0.012	8.77	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	446.59
MW-12S	2006 Q2	8.01	0.0445	--	0.015	14.68	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	457.2
MW-12S	2006 Q3	4.477	0.0545	--	< 0.01 U	1.26 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	499.18
MW-12S	2006 Q4	1.317	0.0735	--	0.0205	13.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	362.88
MW-12S	2007 Q1	15.64	0.055	--	0.016	9.006	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	413.57
MW-12S	2007 Q2	16.03	0.057 J	--	0.019	13.66	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	570.22
MW-12S	2007 Q3	14.55 J	0.066	--	0.019 J	14.32 R	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	572.08
MW-12S	2007 Q4	3.26	0.049	--	< 0.005 U	10.39	--	--	--	< 0.065 U	0.143	< 0.065 U	< 0.065 U	--	--	--	380

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-12S	2008 Q1	30.3	0.113	--	< 0.01 UJ	10.13	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	383
MW-12S	2008 Q2	12.01 R	0.035	--	< 0.01 U	12.29	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	595
MW-12S	2008 Q3	70.01 J	0.043 R	--	< 0.01 U	13.42	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	639
MW-12S	2008 Q4	15.1 J	0.047 R	--	< 0.01 U	13.75	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	593
MW-12S	2009 Q1	31.1	0.026 J	--	< 0.01 UJ	11.8	--	--	--	< 0.485 U	< 0.485 U	< 0.485 U	< 0.485 U	--	--	--	497
MW-12S	2009 Q2	25.9	0.0346	--	< 0.01 U	9.997	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	483
MW-12S	2009 Q3	26.9	0.0331 R	--	0.0115 J	13.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	570
MW-12S	2009 Q4	13.28	0.0686	--	< 0.01 U	15.44	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	628
MW-12S	2010 Q1	13.52	0.0508	--	< 0.01 U	13.93	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	395
MW-12S	2010 Q2	2.5	0.051	--	< 0.01 U	12.88	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	660
MW-12S	2010 Q3	47.89	0.034	--	< 0.01 U	11.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	690
MW-12S	2010 Q4	18.95	0.059	--	< 0.01 U	13.75	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	686
MW-12S	2011 Q1	1.01	0.06	--	< 0.02 U	13.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	670
MW-12S	2011 Q2	6.01	0.044	--	< 0.01 U	11.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	794
MW-12S	2011 Q3	12.7	0.059	--	< 0.01 U	12.3	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	832
MW-12S	2011 Q4	13.3	0.046	--	< 0.01 UJ	11.8	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	625
MW-12S	2012 Q1	16.7	0.04	--	< 0.01 U	10.8 J	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	594
MW-12S	2012 Q3	19 J	0.044	--	< 0.01 U	11.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	787
MW-12S	2012 Q4	16	0.04	--	< 0.01 U	13.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	797
MW-12S	2012 Q4	4.89	0.04	--	< 0.01 UJ	9.54	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	481
MW-12S	2013 Q2	22	0.037	--	< 0.01 U	11.3 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	703
MW-12S	2013 Q4	4.2	0.039	--	< 0.01 U	10.1	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	804
MW-12S	2014 Q2	18.3	0.04	--	< 0.01 U	10.7	--	--	--	< 0.068 U	< 0.068 U	< 0.068 U	< 0.068 U	--	--	--	887
MW-12S	2014 Q4	13.2	0.041	--	< 0.01 U	12.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	822
MW-12S	2015 Q3	4.91	0.043	--	--	12.6	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	888
MW-12S	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-12S	2015 Q4	1.28	0.039	--	< 0.01 U	14.5	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	775
MW-12S	2016 Q2	3.04	0.027	--	0.004 J	13.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1030
MW-12S	2016 Q4	5.87	0.018	--	0.012	13.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	777
MW-12S	2017 Q2	1.55	0.032	--	0.0097 J	9.38	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	806
MW-12S	2017 Q4	5.44	0.021	--	0.0083 J	11.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	946
MW-12S	2018 Q2	3.83	0.029	--	0.013	11	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1020
MW-12S	2019 Q1	3.2	0.039	--	0.0064 J	12.5	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	955
MW-12S	2019 Q2	7.09	0.011	--	< 0.01 UJ	10.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1040 J
MW-12S	2019 Q4	0.5	0.011	--	< 0.01 UJ	11.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	958
MW-12S	2020 Q2	0.445	0.028	--	< 0.01 U	11.5	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	1000
MW-12S	2020 Q4	0.306	0.027	--	< 0.01 U	11.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	943
MW-12S	2021 Q2	0.549	0.044	--	< 0.01 U	11.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1010
MW-12S	2021 Q4	0.165	0.031	--	< 0.01 U	13.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	865
MW-12S	2022 Q2	0.625	0.044	--	0.01 J	8.73	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	872
MW-12S	2022 Q4	0.339	0.018	--	< 0.01 U	14.3 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1030
MW-12S	2023 Q2	--	0.039	--	< 0.01 U	8.86	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	987
MW-12S	2023 Q3	--	--	< 0.002 UJ	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--	--	--
MW-12S	2023 Q4	--	0.014 J	< 0.006 U	--	9.54	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	724
MW-12S	2024 Q1	--	0.01 J	0.001 J	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--	--	--
MW-12S	2024 Q2	--	--	< 0.002 U	--	7.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	766 J
MW-12S	2024 Q4	--	--	0.0041 B	--	8.76	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	806
MW-13S	1999 Q1	2.1	0.18	--	--	10	--	--	--	--	--	--	--	--	--	< 0.065 U	1300
MW-13S	1999 Q2	2.8	0.33	--	--	5.3	--	--	--	--	--	--	--	--	--	0.094	2000
MW-13S	1999 Q3	2	0.41	--	--	4.1	--	--	--	--	--	--	--	--	--	< 0.065 U	3500
MW-13S	1999 Q4	1.9	0.1	--	--	17	--	--	--	--	--	--	--	--	--	0.23	310
MW-13S	2000 Q1	1.6	0.23	--	--	9.2	--	--	--	--	--	--	--	--	--	< 0.065 U	1200
MW-13S	2000 Q2	0.48	0.06	--	--	13	--	--	--	--	--	--	--	--	--	0.094	270
MW-13S	2000 Q3	1.9	0.09	--	--	11	--	--	--	--	--	--	--	--	--	< 0.065 U	880
MW-13S	2000 Q4	0.22	0.289	--	0.0175	4.507	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3680
MW-13S	2001 Q1	0.19	0.341	--	0.013	6.37	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2531.55
MW-13S	2001 Q2	0.27	0.235	--	0.013	7.978	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	974.43
MW-13S	2001 Q3	2.48	0.536	--	0.054	0.788	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	4132.9

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-13S	2001 Q4	0.24	0.631	--	0.063	6.666	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3153.12
MW-13S	2002 Q1	0.12	0.399	--	0.022	7.777	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1452.18
MW-13S	2002 Q2	0.23	0.268	--	0.041	9.637	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1867.8
MW-13S	2002 Q3	0.15	0.418	--	0.0425	4.768	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3812.14
MW-13S	2002 Q4	0.216	0.142	--	0.013	11.48	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	967.85
MW-13S	2003 Q1	< 0.011 U	0.31	--	0.0365	7.089	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1621.1
MW-13S	2003 Q2	< 0.01 U	0.244	--	0.0225	7.732	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1649.91
MW-13S	2003 Q3	0.084	0.312	--	0.0735	8.38	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1717.19
MW-13S	2003 Q4	0.1	0.161	--	0.0175	7.738	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2075.19
MW-13S	2004 Q1	2.762	0.176	--	0.0325	5.153	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1130.18
MW-13S	2004 Q2	2.814	0.025	--	< 0.01 U	11.2	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	347.31
MW-13S	2004 Q3	0.562	0.343	--	0.054	7.892	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3192.21
MW-13S	2004 Q4	1.228	0.0435	--	0.0655	5.339	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3110.15
MW-13S	2005 Q1	1.83	0.017	--	0.0645	11.89	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2260.85
MW-13S	2005 Q2	1.846	0.053	--	< 0.01 U	8.765	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	377.6
MW-13S	2005 Q3	1.19	0.484	--	< 0.01 U	5.903	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3964.72
MW-13S	2005 Q4	0.561	0.212	--	0.0325	8.573	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	762.98
MW-13S	2006 Q1	1.163	0.0685	--	0.0115	8.763	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1541.67
MW-13S	2006 Q2	2.153	0.0475	--	< 0.01 U	10.88	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.067	< 0.065 U	< 0.065 U	--	--	--	466.56
MW-13S	2006 Q3	1.2	0.231	--	0.0415	4.629	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	537.94
MW-13S	2006 Q4	0.449	0.224 J	--	0.0315 J	7.099 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1411.93 J
MW-13S	2007 Q1	1.085	0.13	--	0.021	9.811	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1203.62
MW-13S	2007 Q2	2.797	0.069	--	0.011	10.97	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	578.77
MW-13S	2007 Q3	0.612	0.4	--	0.367	3.486	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	267.84
MW-13S	2007 Q4	0.499	0.2	--	0.016	10.56	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	610
MW-13S	2008 Q1	1.71	0.331	--	< 0.01 UJ	8.82	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	57
MW-13S	2008 Q2	3.338 R	0.17 R	--	0.018 R	9.618	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2110
MW-13S	2008 Q3	4.799	0.14 R	--	< 0.01 U	3.796	--	--	--	< 0.065 U	0.107	0.073	< 0.065 U	--	--	--	639
MW-13S	2008 Q4	1.494	0.12	--	< 0.01 U	4.101	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2540
MW-13S	2009 Q1	1.56 J	0.211	--	0.0239 J	4.52 J	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	2430 J
MW-13S	2009 Q2	2.8	0.159	--	0.0207	5.714	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2170
MW-13S	2009 Q3	2.8	0.132	--	0.0143	6.771	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2540
MW-13S	2009 Q4	2.072	0.124	--	< 0.01 U	8.087	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1330
MW-13S	2010 Q1	2.823	0.102 J	--	< 0.01 U	3.271	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2650
MW-13S	2010 Q2	1.209	0.29	--	0.018	3.127 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	806
MW-13S	2010 Q3	1.211	0.191	--	< 0.01 U	4.885	--	--	--	< 0.065 U	0.068 AE	< 0.065 U	< 0.065 U	--	--	--	2770
MW-13S	2010 Q4	1.922	0.107	--	< 0.01 U	6.731	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1540
MW-13S	2011 Q1	1.66	0.067	--	< 0.01 U	8.63	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	754
MW-13S	2011 Q2	4.79	0.16	--	< 0.01 U	4.66	--	--	--	< 0.0739 U	0.18 AE	< 0.0739 U	< 0.0739 U	--	--	--	2580
MW-13S	2011 Q3	0.88	0.271	--	0.029	12	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	1440
MW-13S	2011 Q4	2.3	0.106	--	< 0.01 UJ	11.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	510
MW-13S	2012 Q1	1.4	0.102	--	< 0.01 U	12.1	--	--	--	< 0.061 U	0.098 J	< 0.061 U	< 0.061 U	--	--	--	900
MW-13S	2012 Q3	1.16 J	0.194	--	< 0.01 U	7.96	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	2250
MW-13S	2012 Q3	0.46	0.198	--	< 0.01 UJ	15	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	1140
MW-13S	2012 Q4	0.76	0.097	--	< 0.01 UJ	11.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	485
MW-13S	2013 Q2	3.2	0.084	--	< 0.01 U	4.62	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	3200
MW-13S	2013 Q4	0.66	0.072	--	< 0.01 U	10	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	852
MW-13S	2014 Q2	0.58	0.088	--	< 0.01 U	3.84	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	3930
MW-13S	2014 Q4	0.28 J	0.142	--	< 0.01 U	9.71	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	2270
MW-13S	2015 Q3	0.72	0.064	--	--	2.29	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	3760
MW-13S	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-13S	2015 Q4	0.56	0.218	--	< 0.01 U	14.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	1640
MW-13S	2016 Q2	0.23	0.099	--	0.02	9.64	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2710
MW-13S	2017 Q1	4.13	0.04	--	< 0.01 U	9.68	--	--	--	< 0.065 U	0.062	< 0.065 U	< 0.065 U	--	--	--	758
MW-13S	2017 Q2	0.363	0.063	--	0.018	6.99	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2080
MW-13S	2017 Q4	1.1 J	0.039	--	< 0.01 U	9.71	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1420
MW-13S	2018 Q2	1.16	0.061	--	0.0074 J	4.75	--	--	--	< 0.065 U	< 0.065 U	0.039	< 0.065 U	--	--	--	3000
MW-13S	2018 Q4	0.422	0.045	--	0.0076 J	12.5	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	738

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-13S	2019 Q2	0.157	0.036	--	< 0.01 UJ	2.67	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3280 J
MW-13S	2019 Q4	0.185	0.018	--	< 0.01 U	8.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	0.014 J	--	--	--	687
MW-13S	2020 Q2	0.259	0.069	--	0.013	6.56	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	2540
MW-13S	2020 Q4	0.218	0.01	--	< 0.01 U	7.76	--	--	--	< 0.065 U	< 0.065 U	0.116	< 0.065 U	--	--	--	1710
MW-13S	2021 Q2	0.266	< 0.005 U	--	< 0.01 U	< 1.25 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	439
MW-13S	2021 Q4	0.18	0.002 J	--	< 0.01 U	9.69	--	--	--	0.015 J	< 0.065 U	0.019 JP	< 0.065 U	--	--	--	228
MW-13S	2022 Q2	0.0663	0.03	--	< 0.01 U	4.59 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1880
MW-13S	2022 Q4	0.18	0.022	--	< 0.01 U	10.5	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	582
MW-13S	2023 Q2	--	--	--	--	2.84	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2910
MW-13S	2023 Q3	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13S	2023 Q4	--	--	< 0.006 U	--	12	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	504
MW-13S	2024 Q2	--	--	< 0.002 U	--	15.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	932
MW-13S	2024 Q4	--	--	< 0.002 U	--	18.9	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	877
MW-14S	2006 Q4	0.964	< 0.01 U	--	< 0.01 U	0.6145	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	460.39
MW-14S	2007 Q1	15.8 J	< 0.01 U	--	< 0.01 U	0.62	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	413.27
MW-14S	2007 Q2	8.069	< 0.01 U	--	< 0.01 U	0.5861	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	455.94
MW-14S	2007 Q3	31.99	< 0.01 U	--	< 0.01 U	0.6506	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	454.06
MW-14S	2007 Q4	6.008	< 0.005 U	--	< 0.005 U	0.6059	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	390
MW-14S	2008 Q1	9.66	0.228	--	< 0.01 UJ	0.5933	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	365
MW-14S	2008 Q2	7.2 R	< 0.005 U	--	< 0.01 U	0.581	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	390
MW-14S	2008 Q3	3.805 R	< 0.005 U	--	< 0.01 U	0.6261	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	382 J
MW-14S	2008 Q4	22.23	< 0.005 R	--	< 0.01 U	0.6249	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	526
MW-14S	2009 Q1	10.1	< 0.01 U	--	< 0.01 UJ	0.55	--	--	--	< 0.485 U	< 0.485 U	< 0.485 U	< 0.485 U	--	--	--	368
MW-14S	2009 Q2	2.02	< 0.01 U	--	< 0.01 U	0.5691	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	355
MW-14S	2009 Q3	22.2	< 0.01 U	--	< 0.01 U	0.5244	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	364
MW-14S	2009 Q4	2.909	< 0.01 U	--	< 0.01 U	0.5664	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	392
MW-14S	2010 Q1	2.577	< 0.01 U	--	< 0.01 U	0.4448	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	375
MW-14S	2010 Q2	4.03	< 0.01 U	--	< 0.01 U	0.4679	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	320
MW-14S	2010 Q3	1.31	< 0.01 U	--	< 0.01 U	0.5269	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	371
MW-14S	2010 Q4	4.544	< 0.01 U	--	< 0.01 U	0.4893	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	345
MW-14S	2011 Q1	5.74	< 0.01 U	--	< 0.01 U	0.58	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	273
MW-14S	2011 Q2	3.76	< 0.01 U	--	< 0.01 U	0.63	--	--	--	< 0.0663 U	< 0.0663 U	< 0.0663 U	< 0.0663 U	--	--	--	281
MW-14S	2011 Q3	14.2	< 0.01 U	--	< 0.01 U	0.65	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	310
MW-14S	2011 Q4	3.06	< 0.01 U	--	< 0.01 UJ	0.58	--	--	--	--	--	--	--	--	--	--	305
MW-14S	2012 Q1	3.19	< 0.01 U	--	< 0.01 U	0.46	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	317
MW-14S	2012 Q3	10.6 J	< 0.01 U	--	< 0.01 U	0.77	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	297
MW-14S	2012 Q3	3.41	< 0.01 U	--	< 0.01 UJ	0.25	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	368
MW-14S	2012 Q4	9.83	< 0.01 U	--	< 0.01 UJ	0.53	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	278
MW-14S	2013 Q2	11	< 0.01 U	--	< 0.01 U	0.52	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	340
MW-14S	2013 Q4	1.36	< 0.01 U	--	< 0.01 U	0.5	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	251
MW-14S	2014 Q2	1.93	< 0.01 U	--	< 0.01 U	0.52	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	292
MW-14S	2014 Q4	14.8 J	< 0.01 U	--	< 0.01 U	0.46	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	287
MW-14S	2015 Q3	4.27	< 0.01 U	--	--	0.46	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	340
MW-14S	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-14S	2015 Q4	< 0.1 U	< 0.01 U	--	< 0.01 U	0.49	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	368
MW-14S	2016 Q2	2.43	< 0.005 U	--	--	0.5	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	357
MW-14S	2017 Q1	1.62	< 0.005 U	--	< 0.01 U	0.374	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	327
MW-14S	2017 Q2	0.205	0.002 J	--	< 0.01 U	0.35	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	363
MW-14S	2017 Q4	0.289	< 0.005 U	--	< 0.01 U	0.498	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	325
MW-14S	2018 Q2	0.712	< 0.005 U	--	< 0.01 U	0.519	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	390
MW-14S	2018 Q4	0.128	< 0.005 U	--	< 0.01 U	0.411	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	276
MW-14S	2019 Q2	1.25	< 0.005 U	--	< 0.01 UJ	0.461	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	418 J
MW-14S	2019 Q4	0.106	< 0.005 U	--	< 0.01 U	0.45	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	324
MW-14S	2020 Q2	0.06 J	< 0.005 U	--	< 0.01 U	0.766	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	330
MW-14S	2020 Q4	0.044 J	< 0.005 U	--	< 0.01 U	0.389 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	403
MW-14S	2021 Q2	0.0195	< 0.005 U	--	< 0.01 U	0.701	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	393
MW-14S	2021 Q4	0.0383	< 0.005 U	--	< 0.01 U	0.434	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	287
MW-14S	2022 Q2	0.0195	< 0.005 U	--	--	0.352	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	313

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-14S	2022 Q4	0.0168	< 0.005 U	--	< 0.01 U	0.373	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	311
MW-14S	2023 Q2	--	--	< 0.002 U	--	0.366	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	414
MW-14S	2023 Q4	--	--	< 0.006 U	--	0.48	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	417
MW-14S	2024 Q2	--	--	< 0.002 U	--	0.796	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	356
MW-14S	2024 Q4	--	--	0.0033	--	0.42	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	371
MW-15S-87	1999 Q1	1	< 0.01 U	--	--	1.3	--	--	--	--	--	--	--	--	--	< 0.065 U	560
MW-15S-87	1999 Q2	0.53	< 0.01 U	--	--	1	--	--	--	--	--	--	--	--	--	< 0.065 U	640
MW-15S-87	1999 Q3	0.37	< 0.01 U	--	--	1.2	--	--	--	--	--	--	--	--	--	< 0.065 U	1800
MW-15S-87	1999 Q4	0.31	< 0.01 U	--	--	1.4	--	--	--	--	--	--	--	--	--	< 0.065 U	900
MW-15S-87	2000 Q1	0.44	< 0.01 U	--	--	1.5	--	--	--	--	--	--	--	--	--	< 0.065 U	900
MW-15S-87	2000 Q2	0.81	< 0.01 U	--	--	1.3	--	--	--	--	--	--	--	--	--	< 0.065 U	1100
MW-15S-87	2000 Q3	0.33	< 0.01 u	--	--	1.3	--	--	--	--	--	--	--	--	--	0.082	900
MW-15S-87	2000 Q4	0.18	< 0.01 U	--	< 0.01 U	1.268	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	732
MW-15S-87	2001 Q1	0.3	< 0.01 U	--	< 0.01 U	1.232	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	849.75
MW-15S-87	2001 Q2	0.11	< 0.01 U	--	< 0.01 U	1.123	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	855.3
MW-15S-87	2001 Q3	0.44	< 0.01 U	--	< 0.01 U	1.106	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	930.81
MW-15S-87	2001 Q4	0.13	< 0.01 U	--	< 0.01 U	1.021	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	888.43
MW-15S-87	2002 Q1	< 0.01 U	< 0.01 U	--	< 0.01 U	1.011	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	797.08
MW-15S-87	2002 Q2	0.1	< 0.01 U	--	< 0.01 U	1.021	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.151	0.082	< 0.065 U	--	--	--	868.27
MW-15S-87	2002 Q3	0.11	0.0265	--	< 0.01 U	1.241	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	891.51
MW-15S-87	2002 Q4	0.044	< 0.01 U	--	< 0.01 U	1.089	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	972.17
MW-15S-87	2003 Q1	0.022	< 0.01 U	--	< 0.01 U	1.054	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	840.077
MW-15S-87	2003 Q2	0.014	< 0.01 U	--	< 0.01 U	0.901	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	876.29
MW-15S-87	2003 Q3	0.097	< 0.01 U	--	< 0.01 U	1.263	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	896.45
MW-15S-87	2003 Q4	0.066	< 0.01 U	--	< 0.01 U	1.142	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	964.35
MW-15S-87	2004 Q1	4.509	< 0.01 U	--	< 0.01 U	1.104	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	716.83
MW-15S-87	2004 Q2	6.142	< 0.01 U	--	< 0.01 U	1.327	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	339.49
MW-15S-87	2004 Q3	10.19	< 0.01 U	--	< 0.01 U	1.304	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	728.36
MW-15S-87	2004 Q4	3.116	< 0.01 U	--	< 0.01 U	1.481	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	819.62
MW-15S-87	2005 Q1	4.407	< 0.01 U	--	< 0.01 U	1.413	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	373.92
MW-15S-87	2005 Q2	4.587	< 0.01 U	--	< 0.01 U	1.338	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	177.72
MW-15S-87	2005 Q3	8.314	< 0.01 U	--	< 0.01 U	1.654	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	340.25
MW-15S-87	2005 Q4	3.39	< 0.01 U	--	< 0.01 U	1.841	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	148.66
MW-15S-87	2006 Q1	3.968	< 0.01 U	--	< 0.01 U	1.697	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	89.43
MW-15S-87	2006 Q2	2.404	< 0.01 U	--	< 0.01 U	1.337	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	107.92
MW-15S-87	2006 Q3	5.163	< 0.01 U	--	< 0.01 U	1.417	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201.02
MW-15S-87	2006 Q4	1.26	< 0.01 U	--	< 0.01 U	2.02	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	220.55
MW-15S-87	2007 Q1	3.45	< 0.01 U	--	< 0.01 U	1.578	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	86.5
MW-15S-87	2007 Q2	1.698	< 0.01 U	--	< 0.01 U	2.103	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	76.63
MW-15S-87	2007 Q3	9.59	< 0.01 U	--	< 0.01 U	1.68	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	284.74
MW-15S-87	2007 Q4	2.97	0.031	--	< 0.005 U	1.795	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	390
MW-15S-87	2008 Q1	24	< 0.01 U	--	< 0.01 U	1.786	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	170
MW-15S-87	2008 Q2	13.51 R	< 0.005 U	--	< 0.01 U	1.858	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	156
MW-15S-87	2008 Q3	17.76	< 0.005 U	--	< 0.01 U	1.898	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	238
MW-15S-87	2008 Q4	28.93	< 0.005 U	--	< 0.01 U	1.445	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	391
MW-15S-87	2009 Q1	7.85	< 0.005 R	--	< 0.006 U	1.25	--	--	--	< 0.196 U	< 0.196 U	< 0.278 U	< 0.278 U	--	--	--	230 J
MW-15S-87	2009 Q2	1.84 J	< 0.01 U	--	< 0.01 U	1.507	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	242
MW-15S-87	2009 Q3	19.8	< 0.01 U	--	< 0.01 U	1.683	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	243
MW-15S-87	2009 Q4	7.313	< 0.01 U	--	< 0.01 U	1.584	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	230
MW-15S-87	2010 Q1	11.91	< 0.01 U	--	< 0.01 U	1.793	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	165
MW-15S-87	2010 Q2	3.683	< 0.01 U	--	< 0.01 U	1.597	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	167
MW-15S-87	2010 Q3	4.6	< 0.01 U	--	< 0.01 U	1.524	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	214
MW-15S-87	2010 Q4	7.048	< 0.01 U	--	< 0.01 U	1.504	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	51.4
MW-15S-87	2011 Q1	9.16	< 0.01 U	--	< 0.01 U	1.55	--	--	--	< 0.0657 U	< 0.0657 U	< 0.0657 U	< 0.0657 U	--	--	--	122
MW-15S-87	2011 Q2	12	< 0.01 U	--	< 0.01 U	1.6	--	--	--	< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U	--	--	--	110
MW-15S-87	2011 Q3	29.6	< 0.01 U	--	< 0.01 U	1.63	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	336
MW-15S-87	2011 Q4	3.54	< 0.01 U	--	< 0.01 UJ	1.85	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	193
MW-15S-87	2012 Q1	2.25	< 0.01 U	--	< 0.01 U	1.63 J	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	139

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-15S-87	2012 Q3	5.34 J	< 0.01 U	--	< 0.01 U	2.14	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	240
MW-15S-87	2012 Q3	--	--	--	--	--	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	--
MW-15S-87	2012 Q4	1.1	< 0.01 U	--	< 0.01 UJ	2.06	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	247
MW-15S-87	2013 Q2	2.08	< 0.01 U	--	< 0.01 U	2.51 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	146
MW-15S-87	2013 Q4	1.35	< 0.01 U	--	< 0.01 U	2.43	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	83.9
MW-15S-87	2014 Q2	4.08	< 0.01 U	--	< 0.01 U	2.61	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	172
MW-15S-87	2014 Q4	7.49	< 0.01 U	--	< 0.01 U	2.28	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	258
MW-15S-87	2015 Q3	1.65	< 0.01 U	--	--	2.42	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	248
MW-15S-87	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-15S-87	2015 Q4	7.98	< 0.01 U	--	< 0.01 U	2.54	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	248
MW-15S-87	2016 Q2	0.762 R	< 0.005 U	--	--	2.66	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201
MW-15S-87	2016 Q4	0.226	0.002 J	--	< 0.01 U	4.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	55.8
MW-15S-87	2017 Q2	0.466	0.007	--	< 0.01 U	2.46	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	99.5
MW-15S-87	2017 Q4	1.16	< 0.005 U	--	< 0.01 U	2.91	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	73.8
MW-15S-87	2018 Q2	3.37	< 0.005 U	--	< 0.01 U	3.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	131
MW-15S-87	2019 Q1	2.48	< 0.005 U	--	< 0.01 U	3.09	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	122
MW-15S-87	2019 Q2	3.41	< 0.005 U	--	< 0.01 UJ	2.87	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	131 J
MW-15S-87	2019 Q4	3.41	< 0.005 U	--	< 0.01 UJ	3.26	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	68.7
MW-15S-87	2020 Q2	6.24	< 0.005 U	--	< 0.01 U	3	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	121
MW-15S-87	2020 Q4	0.713	< 0.005 U	--	< 0.01 U	3.62	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	106
MW-15S-87	2021 Q3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15S-87	2021 Q3	--	< 0.005 U	--	< 0.01 U	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-15S-87	2021 Q4	0.348	< 0.005 U	--	< 0.01 U	3.56	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	36.7
MW-15S-87	2022 Q2	0.693	< 0.005 U	--	< 0.01 U	3.03	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	113
MW-15S-87	2022 Q4	1.07	< 0.005 U	--	< 0.01 U	4.54 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	99.3
MW-15S-87	2023 Q2	--	--	< 0.002 U	--	3.96	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	138
MW-15S-87	2023 Q4	--	--	< 0.006 U	--	4.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	77.1
MW-15S-87	2024 Q2	--	--	< 0.002 U	--	3.64	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	133 J
MW-15S-87	2024 Q4	--	--	< 0.002 U	--	2.74	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	216
MW-20-85-S	2006 Q4	0.282	0.0105	--	< 0.01 U	0.4874	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	164.99
MW-20-85-S	2007 Q1	0.151	< 0.01 U	--	< 0.01 U	0.2892	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	241.39
MW-20-85-S	2007 Q2	2.414	< 0.01 U	--	< 0.01 U	0.3412	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	277.66
MW-20-85-S	2008 Q4	1.174	< 0.005 U	--	< 0.01 U	0.3372	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	284
MW-20-85-S	2009 Q1	0.544	< 0.005 R	--	< 0.006 U	< 0.085 U	--	--	--	< 0.168 U	< 0.168 U	< 0.238 U	< 0.238 U	--	--	--	307 J
MW-20-85-S	2009 Q2	< 0.2 UJ	< 0.01 U	--	< 0.01 U	0.3321	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	270
MW-20-85-S	2009 Q3	< 0.2 U	< 0.01 U	--	< 0.01 U	0.245	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	256
MW-20-85-S	2009 Q4	0.037	< 0.01 U	--	< 0.01 U	0.3042	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	321
MW-20-85-S	2010 Q1	0.125	0.028	--	< 0.01 U	0.2278	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	189
MW-20-85-S	2010 Q2	--	< 0.01 U	--	< 0.01 U	0.2192	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	225
MW-20-85-S	2010 Q3	0.924	< 0.01 U	--	< 0.01 U	0.2379	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	298
MW-20-85-S	2010 Q4	0.132	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	233
MW-20-85-S	2011 Q1	< 0.1 U	< 0.01 U	--	< 0.01 U	0.21	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	216
MW-20-85-S	2011 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	0.28	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	230
MW-20-85-S	2011 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	0.2	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	--	--	--	204
MW-20-85-S	2011 Q4	< 0.1 U	< 0.01 U	--	< 0.01 UJ	0.2	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	226
MW-20-85-S	2012 Q1	< 0.1 U	< 0.01 U	--	< 0.01 U	0.2	--	--	--	< 0.063 UJ	< 0.063 UJ	< 0.063 UJ	< 0.063 UJ	--	--	--	248
MW-20-85-S	2012 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	0.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	224
MW-20-85-S	2012 Q3	< 0.1 U	< 0.01 U	--	< 0.01 UJ	0.33	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	216
MW-20-85-S	2012 Q4	< 0.1 U	< 0.01 U	--	< 0.01 UJ	0.21	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	229
MW-20-85-S	2013 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	262
MW-20-85-S	2013 Q4	5.32	< 0.01 U	--	< 0.01 U	0.19	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	260
MW-20-85-S	2014 Q2	2.95	< 0.01 U	--	< 0.01 U	0.19	--	--	--	< 0.068 U	< 0.068 U	< 0.068 U	< 0.068 U	--	--	--	217
MW-20-85-S	2014 Q4	2.35 J	< 0.01 U	--	< 0.01 U	0.2	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	213
MW-20-85-S	2015 Q3	0.15	< 0.01 U	--	--	0.13	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	240
MW-20-85-S	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-20-85-S	2015 Q4	< 0.1 U	< 0.01 U	--	< 0.01 U	0.24	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	216
MW-20-85-S	2016 Q2	0.026 J	< 0.005 U	--	--	0.147	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	300
MW-20-85-S	2017 Q1	0.156	< 0.005 U	--	< 0.01 U	0.139	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	218

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-20-85-S	2017 Q2	0.079 J	< 0.005 U	--	< 0.01 U	0.797	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	224
MW-20-85-S	2017 Q4	< 0.1 U	< 0.005 U	--	< 0.01 U	0.128	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	277
MW-20-85-S	2018 Q2	< 0.1 U	< 0.005 U	--	< 0.01 UJ	0.13	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	289
MW-20-85-S	2018 Q4	0.067 J	< 0.005 U	--	< 0.01 U	0.126	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	296
MW-20-85-S	2019 Q2	< 0.1 U	< 0.005 U	--	< 0.01 UJ	0.124	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	312 J
MW-20-85-S	2019 Q4	< 0.1 U	< 0.005 U	--	< 0.01 UJ	0.158	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	270
MW-20-85-S	2020 Q2	< 0.1 U	< 0.005 U	--	< 0.01 U	0.567	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	281
MW-20-85-S	2020 Q4	< 0.1 U	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	268
MW-20-85-S	2021 Q2	0.0799	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	289
MW-20-85-S	2021 Q4	0.0966	< 0.005 U	--	< 0.01 U	0.176	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	249
MW-20-85-S	2022 Q2	0.00756 J	< 0.005 U	--	< 0.01 U	0.119	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	266
MW-20-85-S	2022 Q4	0.0647	< 0.005 U	--	< 0.01 U	0.167	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285
MW-20-85-S	2023 Q2	--	--	< 0.002 U	--	0.128	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	323
MW-20-85-S	2023 Q4	--	--	0.027 J	--	0.157	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	271
MW-20-85-S	2024 Q2	--	--	< 0.002 U	--	0.638	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	287 J
MW-20-85-S	2024 Q4	--	--	< 0.002 U	--	0.229	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	307
MW-22-85-S	2008 Q4	10.17	< 0.005 R	--	< 0.01 U	0.2591	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	614
MW-22-85-S	2009 Q1	3.54	< 0.005 R	--	< 0.006 U	< 0.085 U	--	--	--	< 0.173 U	< 0.173 U	< 0.245 U	< 0.245 U	--	--	--	505 J
MW-22-85-S	2009 Q2	5.45 J	< 0.01 U	--	--	0.2426	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	365
MW-22-85-S	2009 Q3	3.42	< 0.01 U	--	< 0.01 U	0.2521	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	441 J
MW-22-85-S	2009 Q4	8.555	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	436
MW-22-85-S	2010 Q1	11.7	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	491
MW-22-85-S	2010 Q2	3.782	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	437
MW-22-85-S	2010 Q3	10.58	< 0.01 U	--	< 0.01 U	0.2108	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	427
MW-22-85-S	2010 Q4	4.605	< 0.01 U	--	< 0.01 U	0.2414	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	469
MW-22-85-S	2011 Q1	4.73	< 0.01 U	--	< 0.01 U	0.29	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	461
MW-22-85-S	2011 Q2	1.63	< 0.01 U	--	< 0.01 U	0.28	--	--	--	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	--	--	--	492
MW-22-85-S	2011 Q3	3	< 0.01 U	--	< 0.01 U	0.18	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	443
MW-22-85-S	2011 Q4	8.28	< 0.01 U	--	< 0.01 UJ	0.27	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	453
MW-22-85-S	2012 Q1	8.83	< 0.01 U	--	< 0.01 U	0.24 J	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	442
MW-22-85-S	2012 Q3	3.46	< 0.01 U	--	< 0.01 UJ	0.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	448
MW-22-85-S	2012 Q4	4.52	< 0.01 U	--	< 0.01 U	< 0.1 U	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	425
MW-22-85-S	2012 Q4	0.65	< 0.01 U	--	< 0.01 UJ	0.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	429
MW-22-85-S	2013 Q2	4.96	< 0.01 U	--	< 0.01 U	0.21	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	458
MW-22-85-S	2013 Q4	3.02	< 0.01 U	--	< 0.01 U	0.22	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	433
MW-22-85-S	2014 Q2	2.2	< 0.01 U	--	< 0.01 U	0.21	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	452
MW-22-85-S	2014 Q4	1.48 J	< 0.01 U	--	< 0.01 U	0.21	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	414
MW-22-85-S	2015 Q3	1.95	< 0.01 U	--	< 0.01 U	0.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	440
MW-22-85-S	2015 Q4	0.92	< 0.01 U	--	< 0.01 U	0.27	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	423
MW-22-85-S	2016 Q2	0.918	0.003 J	--	--	0.221	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	463
MW-22-85-S	2017 Q1	0.992	0.002 J	--	< 0.01 U	0.209	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	412
MW-22-85-S	2017 Q2	0.564	0.002 J	--	< 0.01 U	0.88	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	424
MW-22-85-S	2018 Q1	0.524	< 0.005 U	--	< 0.01 U	0.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	425
MW-22-85-S	2018 Q2	0.673	< 0.005 U	--	< 0.01 U	0.208	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	439
MW-22-85-S	2018 Q4	3.07	< 0.005 U	--	< 0.01 U	0.213	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	450
MW-22-85-S	2019 Q2	1.24	< 0.005 U	--	< 0.01 UJ	0.226	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	490 J
MW-22-85-S	2019 Q4	0.377	< 0.005 U	--	< 0.01 U	0.221	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	421
MW-22-85-S	2020 Q2	0.275	< 0.005 U	--	< 0.01 U	0.699	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	404
MW-22-85-S	2020 Q4	0.315	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	402
MW-22-85-S	2021 Q3	0.822	< 0.005 U	--	< 0.01 U	0.417 J	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	416
MW-22-85-S	2021 Q4	0.383	< 0.005 U	--	< 0.01 U	0.286	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	401
MW-22-85-S	2022 Q2	1.22	0.002 J	--	< 0.01 U	0.172	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	397
MW-22-85-S	2022 Q4	0.396	< 0.005 U	--	< 0.01 U	0.217	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	402
MW-22-85-S	2023 Q2	--	--	< 0.002 U	--	0.238	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	400
MW-22-85-S	2023 Q4	--	--	< 0.006 U	--	0.225	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	412
MW-22-85-S	2024 Q2	--	--	< 0.002 U	--	0.248	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	423 J
MW-22-85-S	2024 Q4	--	--	< 0.002 U	--	0.232	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	413
MW-23-85-S	2006 Q4	0.425	< 0.01 U	--	< 0.01 U	0.3201	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	145.09

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-23-85-S	2007 Q1	0.06 J	< 0.01 U	--	< 0.01 U	0.2141	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	188.46
MW-23-85-S	2007 Q2	0.646	< 0.01 U	--	< 0.01 U	0.2538	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	245.2
MW-23-85-S	2007 Q3	2.792	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	288.42
MW-23-85-S	2007 Q4	2.36	< 0.005 U	--	< 0.005 U	0.3022	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	250
MW-23-85-S	2009 Q1	26.7	< 0.01 UJ	--	< 0.01 UJ	0.42	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	351
MW-23-85-S	2009 Q2	0.493 J	< 0.01 U	--	< 0.01 U	0.3406	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	378
MW-23-85-S	2009 Q3	4.81	< 0.01 U	--	< 0.01 U	0.3662	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	365 J
MW-23-85-S	2009 Q4	11.72	< 0.01 U	--	< 0.01 U	0.3724	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	417
MW-23-85-S	2010 Q1	8.419	< 0.01 U	--	< 0.01 U	0.3549	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	439
MW-23-85-S	2010 Q2	11.78	< 0.01 U	--	< 0.01 U	0.3305	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	380
MW-23-85-S	2010 Q3	84.45	< 0.01 U	--	< 0.01 U	0.3775	--	--	--	< 0.0663 U	< 0.0663 U	< 0.0663 U	< 0.0663 U	--	--	--	386
MW-23-85-S	2010 Q4	6.766	< 0.01 U	--	< 0.01 U	0.3362	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	361
MW-23-85-S	2011 Q1	5.2	< 0.01 U	--	< 0.01 U	0.42	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	372
MW-23-85-S	2011 Q2	4.16	< 0.01 U	--	< 0.01 U	0.43	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	362
MW-23-85-S	2011 Q3	5.75	< 0.01 U	--	< 0.01 U	0.44	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	395
MW-23-85-S	2011 Q4	10.6	< 0.01 U	--	< 0.01 UJ	0.42	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	376
MW-23-85-S	2012 Q1	10.8	< 0.01 U	--	< 0.01 U	0.4	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	397
MW-23-85-S	2012 Q3	6.78 J	< 0.01 U	--	< 0.01 U	0.63	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	383
MW-23-85-S	2012 Q3	4.91	< 0.01 U	--	< 0.01 UJ	0.26	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	388
MW-23-85-S	2012 Q4	3.37	< 0.01 U	--	< 0.01 UJ	0.39	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	353
MW-23-85-S	2013 Q2	2.11	< 0.01 U	--	< 0.01 U	0.34	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	363
MW-23-85-S	2013 Q4	2.4	< 0.01 U	--	< 0.01 U	0.36	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	358
MW-23-85-S	2014 Q2	2.3	< 0.01 U	--	< 0.01 U	0.35	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	363
MW-23-85-S	2014 Q4	2.64 J	< 0.01 U	--	< 0.01 U	0.36	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	339
MW-23-85-S	2015 Q3	2.9	< 0.01 U	--	--	0.35	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	363
MW-23-85-S	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-23-85-S	2015 Q4	0.81	< 0.01 U	--	< 0.01 U	0.4	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	372
MW-23-85-S	2016 Q2	0.942	0.002 J	--	--	0.37	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	371
MW-23-85-S	2017 Q1	0.472	< 0.005 U	--	< 0.01 U	0.357	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	340
MW-23-85-S	2017 Q2	0.25	< 0.005 U	--	< 0.01 U	0.272	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	334
MW-23-85-S	2018 Q1	1.34	< 0.005 U	--	< 0.01 U	0.328	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	364
MW-23-85-S	2018 Q2	1.74	< 0.005 U	--	< 0.01 U	0.304	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	382
MW-23-85-S	2018 Q4	0.687	< 0.005 U	--	< 0.01 U	0.288	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	355
MW-23-85-S	2019 Q2	1.53	< 0.005 U	--	< 0.01 UJ	0.305	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	418 J
MW-23-85-S	2019 Q4	2.57	< 0.005 U	--	< 0.01 U	0.356	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	388
MW-23-85-S	2020 Q2	1.02	< 0.005 U	--	< 0.01 U	0.81	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	358
MW-23-85-S	2020 Q4	1.27	< 0.005 U	--	< 0.01 U	0.398 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	389
MW-23-85-S	2021 Q2	2.34	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	376
MW-23-85-S	2021 Q4	0.504	< 0.005 U	--	< 0.01 U	0.387	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	356
MW-23-85-S	2022 Q2	1.18	< 0.005 U	--	< 0.01 U	0.289	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	359
MW-23-85-S	2022 Q4	1.42	< 0.005 U	--	< 0.01 U	0.324	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	391
MW-23-85-S	2023 Q2	--	--	--	--	0.313	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	459
MW-23-85-S	2023 Q3	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-23-85-S	2023 Q4	--	--	< 0.006 U	--	0.374	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	372
MW-23-85-S	2024 Q2	--	--	< 0.002 U	--	0.77	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	382
MW-23-85-S	2024 Q4	--	--	< 0.002 U	--	0.358	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	406
MW-30S	2006 Q4	17.03	< 0.01 U	--	< 0.01 U	4.986	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	143.04
MW-30S	2007 Q1	28.57	< 0.01 U	--	< 0.01 U	6.998	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	79.6
MW-30S	2007 Q2	78.91	< 0.01 U	--	< 0.01 U	7.249	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	66.44
MW-30S	2007 Q3	74.87	< 0.01 U	--	< 0.01 U	6.23	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	112.41
MW-30S	2007 Q4	104.7	< 0.005 U	--	< 0.005 U	6.898	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	150
MW-30S	2008 Q1	49.1	0.115	--	< 0.01 UJ	7.66	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	101
MW-30S	2008 Q2	17.96 R	< 0.005 U	--	< 0.01 U	7.301	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	78.7
MW-30S	2008 Q3	122.3	< 0.005 U	--	< 0.01 U	9.117	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	77.2
MW-30S	2008 Q4	22.19	< 0.005 U	--	< 0.01 UJ	4.926	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	158 J
MW-30S	2009 Q1	112	< 0.01 U	--	0.0358 J	6.38	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	--	--	119
MW-30S	2009 Q2	140	< 0.01 U	--	< 0.01 U	8.279	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	92.9
MW-30S	2009 Q3	107	< 0.01 U	--	< 0.01 U	6.121	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	66.7

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-30S	2009 Q4	308.3	< 0.01 U	--	< 0.01 U	5.187	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	84.1
MW-30S	2010 Q1	49.74	< 0.01 UJ	--	< 0.01 UJ	5.377	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	127
MW-30S	2010 Q2	150.6	< 0.01 U	--	< 0.01 U	6.057	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	87.3
MW-30S	2010 Q3	21.56	< 0.01 U	--	< 0.01 U	6.024	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	77.9
MW-30S	2010 Q4	171.7	< 0.01 U	--	< 0.01 U	6.444	--	--	--	< 0.065 U	0.073	< 0.065 U	< 0.065 U	--	--	--	61.8
MW-30S	2011 Q1	48.1	< 0.01 U	--	< 0.01 U	6.02	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	46
MW-30S	2011 Q2	32.1 J	< 0.01 U	--	< 0.01 U	5.75	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	65.6
MW-30S	2011 Q3	44.3	< 0.01 U	--	< 0.01 U	5.53	< 0.048 U	< 0.048 U	< 0.048 U	< 0.048 U	< 0.048 U	< 0.048 U	< 0.048 U	--	--	--	147
MW-30S	2011 Q4	67.5	< 0.01 U	--	< 0.01 UJ	5.53	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	103
MW-30S	2012 Q1	54	< 0.01 U	--	< 0.01 U	5.45	--	--	--	< 0.061 UJ	< 0.061 UJ	< 0.061 UJ	< 0.061 UJ	--	--	--	128
MW-30S	2012 Q3	112 J	< 0.01 U	--	< 0.01 U	4.26	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	160
MW-30S	2012 Q3	28	< 0.01 U	--	< 0.01 UJ	5.36	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	342
MW-30S	2012 Q4	28.2	< 0.01 U	--	< 0.01 UJ	5.75	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	143
MW-30S	2013 Q2	60.2	< 0.01 U	--	< 0.01 U	6.85	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	91.8
MW-30S	2013 Q4	113	< 0.01 U	--	< 0.01 U	5.95	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	95.3
MW-30S	2014 Q2	42.5	< 0.01 U	--	< 0.01 U	54.2	--	--	--	< 0.067 U	< 0.067 U	< 0.067 U	< 0.067 U	--	--	--	136
MW-30S	2014 Q4	38.5 J	< 0.01 U	--	< 0.01 U	5.49	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	76.9
MW-30S	2015 Q3	15.9	< 0.01 U	--	--	5.43	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	119
MW-30S	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-30S	2015 Q4	4.86	< 0.01 U	--	< 0.01 U	6.58	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	72.1
MW-30S	2016 Q2	4.01	< 0.005 U	--	--	6.68	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	76.6
MW-30S	2017 Q1	3.48	< 0.005 U	--	< 0.01 U	6.74	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	123
MW-30S	2017 Q2	2.32	0.003 J	--	0.0062 J	4.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	96
MW-30S	2017 Q4	9.61	< 0.005 U	--	< 0.01 U	6.35	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	69.2
MW-30S	2018 Q2	11.5	< 0.005 U	--	< 0.01 U	6.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	77.5
MW-30S	2018 Q4	4.02	< 0.005 U	--	< 0.01 U	6.21	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	145
MW-30S	2019 Q2	15.8	< 0.005 U	--	< 0.01 UJ	5.32 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	98.6
MW-30S	2019 Q4	2.55	< 0.005 U	--	< 0.01 U	6.74	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	75.1
MW-30S	2020 Q2	0.222	0.004 J	--	< 0.01 U	6.03	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	89.7
MW-30S	2020 Q4	0.558	< 0.005 U	--	< 0.01 U	4.78	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	273
MW-30S	2021 Q2	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-30S	2021 Q4	0.626	< 0.005 U	--	< 0.01 U	5.72	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	77.1
MW-30S	2022 Q2	1.64	< 0.005 U	--	< 0.01 U	5.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	66.1
MW-30S	2022 Q4	0.606	< 0.005 U	--	< 0.01 U	5.62 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201
MW-30S	2023 Q2	--	--	< 0.002 U	--	5.28	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	258
MW-30S	2023 Q4	--	--	< 0.006 U	--	6.35	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	72.7
MW-30S	2024 Q2	--	--	< 0.002 U	--	6.01	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	92.7
MW-30S	2024 Q4	--	--	0.0031	--	4.32	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.5
MW-31SR	1999 Q2	5.3	2	--	--	0.9	--	--	--	--	--	--	--	--	--	< 0.065 U	140
MW-31SR	1999 Q3	4.35	0.03	--	--	3.7	--	--	--	--	--	--	--	--	--	--	167
MW-31SR	1999 Q4	0.97	0.01	--	--	1.3	--	--	--	--	--	--	--	--	--	< 0.065 U	240
MW-31SR	2000 Q1	4.825	1.015	--	--	2.3	--	--	--	--	--	--	--	--	--	< 0.065 U	153.5
MW-31SR	2000 Q2	2.3	0.04	--	--	1.1	--	--	--	--	--	--	--	--	--	< 0.065 U	150
MW-31SR	2000 Q3	0.64	0.02	--	--	0.8	--	--	--	--	--	--	--	--	--	< 0.065 U	170
MW-31SR	2000 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	0.622	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	170
MW-31SR	2001 Q1	0.26	< 0.01 U	--	< 0.01 U	0.77	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174.06
MW-31SR	2001 Q2	3.01	0.011	--	< 0.01 U	0.744	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	189.5
MW-31SR	2001 Q3	2.18	< 0.01 U	--	< 0.01 U	0.579	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174.27
MW-31SR	2001 Q4	0.78	< 0.01 U	--	< 0.01 U	0.58	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	168.51
MW-31SR	2002 Q1	0.12	0.048	--	< 0.01 U	0.863	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	325.29
MW-31SR	2002 Q2	< 0.01 U	< 0.01 U	--	< 0.01 U	0.836	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	221.8
MW-31SR	2002 Q3	0.15	< 0.01 U	--	< 0.01 U	0.964	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	176.95
MW-31SR	2002 Q4	0.212	< 0.01 U	--	< 0.01 U	0.666	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186.2
MW-31SR	2003 Q1	0.047	0.012	--	< 0.01 U	0.706	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	205.75
MW-31SR	2003 Q2	0.045	0.0375	--	0.011	1.717	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	417.47
MW-31SR	2003 Q3	0.076	< 0.01 U	--	< 0.01 U	0.687	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186.41
MW-31SR	2003 Q4	0.076	< 0.01 U	--	< 0.01 U	0.608	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	187.64
MW-31SR	2004 Q1	12.3	0.0245	--	< 0.01 U	1.363	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	242.79

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-31SR	2004 Q2	33.41	0.0415	--	0.0165	2.332	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.083	< 0.065 U	< 0.065 U	--	--	--	277.35
MW-31SR	2004 Q3	4.11	< 0.01 U	--	< 0.01 U	0.665	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	188.26
MW-31SR	2004 Q4	4.796	< 0.01 U	--	< 0.01 U	0.73	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	172.05
MW-31SR	2005 Q1	16.82	0.031	--	0.011	0.9683	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	206.76
MW-31SR	2005 Q2	6.704	0.036	--	0.0115	2.462	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	229.22
MW-31SR	2005 Q3	4.775	< 0.01 U	--	< 0.01 U	0.6742	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	181.8
MW-31SR	2005 Q4	6.264	0.0695	--	0.0175	3.621	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	257.8
MW-31SR	2006 Q1	6.375	0.0385	--	0.012	3.15	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	224.08
MW-31SR	2006 Q2	13.43	0.0125	--	< 0.01 U	1.565	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180.91
MW-31SR	2006 Q3	10.45	< 0.01 U	--	< 0.01 U	0.7745	--	--	--	< 0.065 U	0.078	< 0.065 U	< 0.065 U	--	--	--	188.77
MW-31SR	2006 Q4	2.191	0.0155	--	< 0.01 U	1.03	--	--	--	< 0.065 U	0.117	< 0.065 U	< 0.065 U	--	--	--	167.46
MW-31SR	2007 Q1	5.265	0.044	--	0.014	2.747	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	172.4
MW-31SR	2007 Q2	8.768 J	0.022 J	--	0.01	1.508	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186.75
MW-31SR	2007 Q3	3.893	< 0.01 U	--	< 0.01 U	0.6158	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	191.9
MW-31SR	2007 Q4	4.888	< 0.005 U	--	< 0.005 U	0.5877	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	190
MW-31SR	2008 Q1	6.1	0.023	--	< 0.01 UJ	1.71	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201
MW-31SR	2008 Q2	15.68 R	< 0.005 U	--	< 0.01 U	1.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186
MW-31SR	2008 Q3	6.135	< 0.005 U	--	< 0.01 U	0.6965	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	179 J
MW-31SR	2008 Q4	11.74	< 0.005 U	--	< 0.01 U	0.5851	--	--	--	< 0.065 U	0.107	< 0.065 U	< 0.065 U	--	--	--	180
MW-31SR	2009 Q1	24.6	< 0.01 U	--	0.0145 J	0.79	--	--	--	< 0.495 U	< 0.495 U	< 0.495 U	< 0.495 U	--	--	--	184
MW-31SR	2009 Q2	9.1	< 0.01 U	--	< 0.01 U	1.422	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	182
MW-31SR	2009 Q3	22	< 0.01 U	--	< 0.01 U	0.5853	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	168 J
MW-31SR	2009 Q4	17.82	< 0.01 U	--	< 0.01 U	0.6539	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	198
MW-31SR	2010 Q1	15.86	0.01 J	--	< 0.01 UJ	1.142	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186
MW-31SR	2010 Q2	2.173	< 0.01 U	--	< 0.01 U	0.6839	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	176
MW-31SR	2010 Q3	10.49	< 0.01 U	--	< 0.01 U	0.6116	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	177
MW-31SR	2010 Q4	12.51	0.028	--	< 0.01 U	1.691	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	169
MW-31SR	2011 Q1	2.73	< 0.01 U	--	< 0.01 U	1.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	171
MW-31SR	2011 Q2	4.09	< 0.01 U	--	< 0.01 U	1.39	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	172
MW-31SR	2011 Q3	6.73	< 0.01 U	--	< 0.01 U	0.59	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	--	--	--	182
MW-31SR	2011 Q4	4.78	< 0.01 U	--	< 0.01 UJ	0.92	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	189
MW-31SR	2012 Q1	15.5	< 0.01 U	--	< 0.01 U	0.55	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	200
MW-31SR	2012 Q3	7.5 J	< 0.01 U	--	< 0.01 U	0.73	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	180
MW-31SR	2012 Q3	5.54	< 0.01 U	--	< 0.01 UJ	0.51	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	185
MW-31SR	2012 Q4	3.34	< 0.01 U	--	< 0.01 UJ	0.99	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	194
MW-31SR	2013 Q2	6.11	0.019	--	< 0.01 U	1.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	219
MW-31SR	2013 Q4	1.74	0.018	--	< 0.01 U	1.53	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	188
MW-31SR	2014 Q2	2.16	< 0.01 U	--	< 0.01 U	1.16	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	190
MW-31SR	2014 Q4	1.4 J	< 0.01 U	--	< 0.01 U	0.6	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	183
MW-31SR	2015 Q3	0.84	< 0.01 U	--	--	0.75	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	192
MW-31SR	2015 Q3	--	--	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-31SR	2015 Q4	1.62	< 0.01 U	--	< 0.01 U	0.58	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	206
MW-31SR	2016 Q2	0.662	0.004 J	--	0.003 J	0.726	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201
MW-31SR	2017 Q1	0.516	0.013	--	< 0.01 U	1.61	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178
MW-31SR	2017 Q2	0.404	0.015	--	< 0.01 U	1.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180
MW-31SR	2018 Q1	0.438	0.013	--	0.0066 J	1.68	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	198
MW-31SR	2018 Q2	1.8	0.004 J	--	< 0.01 U	1.08	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	204
MW-31SR	2018 Q4	1.34	0.004 J	--	< 0.01 U	1.49	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	189
MW-31SR	2019 Q2	3.96	0.007	--	< 0.01 UJ	0.696	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	218 J
MW-31SR	2019 Q4	1.08	0.011	--	< 0.01 U	1.43	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	189
MW-31SR	2020 Q2	1.49	0.002 J	--	< 0.01 U	0.998	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	193
MW-31SR	2020 Q4	1.65	< 0.005 U	--	< 0.01 U	0.913	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178
MW-31SR	2021 Q2	1.36	< 0.005 U	--	< 0.01 U	0.585	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	199
MW-31SR	2021 Q4	0.62	0.011	--	< 0.01 U	1.42	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180
MW-31SR	2022 Q2	0.736	0.008	--	< 0.01 U	1.07	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	187
MW-31SR	2022 Q4	0.611	0.002 J	--	< 0.01 U	0.695	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	197
MW-31SR	2023 Q2	--	--	< 0.002 U	--	0.893	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	218
MW-31SR	2023 Q4	--	--	< 0.006 U	--	0.68	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	191

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
MW-31SR	2024 Q2	--	--	< 0.002 U	--	1.24	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	183 J
MW-31SR	2024 Q4	--	--	< 0.002 U	--	0.786	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186
MW-56	2023 Q4	--	--	< 0.006 U	--	0.47	--	--	--	--	--	--	--	--	--	--	340
MW-56	2024 Q2	--	--	< 0.002 U	--	0.749	--	--	--	--	--	--	--	--	--	--	260
MW-56	2024 Q4	--	--	< 0.002 U	--	0.321	--	--	--	--	--	--	--	--	--	--	284
PZ-32	2006 Q2	--	1.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-33	2006 Q2	5.255 J	4.47	--	0.19	8.425	--	--	--	--	--	--	--	--	--	--	--
PZ-34	2006 Q2	--	0.092	--	0.0355	4.473	--	--	--	--	--	--	--	--	--	--	--
PZ-35	2006 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-36	2006 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-37	2006 Q2	--	< 0.01 U	--	--	4.25	--	--	--	--	--	--	--	--	--	--	--
PZ-38	2006 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-39	2006 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-40	2006 Q2	--	< 0.01 U	--	--	6.514	--	--	--	--	--	--	--	--	--	--	--
PZ-41	2006 Q2	5.818 J	< 0.01 U	--	< 0.01 U	6.077	--	--	--	--	--	--	--	--	--	--	--
PZ-42	2006 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-43	2006 Q2	0.501 J	< 0.01 U	--	< 0.01 U	3.194	--	--	--	--	--	--	--	--	--	--	--
PZ-44	2006 Q2	0.992 J	< 0.01 U	--	< 0.01 U	4.156	--	--	--	--	--	--	--	--	--	--	--
PZ-44	2008 Q4	1.101	< 0.005 R	--	0.04	5.74	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1660
PZ-44	2009 Q2	1.53	< 0.01 U	--	--	4.65	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	304
PZ-44	2009 Q3	3.11	< 0.01 U	--	< 0.01 U	4.809	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	745
PZ-44	2009 Q4	1.34	< 0.01 U	--	< 0.01 U	5.024	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	774
PZ-44	2010 Q2	1.299	< 0.01 U	--	< 0.01 U	2.994	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	815
PZ-44	2010 Q3	13.24	< 0.01 U	--	< 0.01 U	4.392	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	22.6
PZ-44	2011 Q2	9.85	< 0.01 U	--	< 0.01 U	3.95	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	792
PZ-44	2011 Q3	34.8	< 0.01 U	--	< 0.01 U	1.18	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	--	--	--	811
PZ-44	2011 Q4	0.56	< 0.01 U	--	< 0.01 UJ	4.45	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	999
PZ-44	2012 Q1	1.7	< 0.01 U	--	< 0.01 U	4.51 J	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	747
PZ-44	2012 Q3	19.1	< 0.01 U	--	< 0.01 U	2.55	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	957
PZ-44	2012 Q3	9.16	< 0.01 U	--	< 0.01 UJ	4.8	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	1100
PZ-44	2012 Q4	6.42	< 0.01 U	--	< 0.01 UJ	4.69	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	1050
PZ-44	2013 Q2	1.42	< 0.01 U	--	< 0.01 U	4.54	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	774
PZ-44	2013 Q4	1.2	< 0.01 U	--	< 0.01 U	3.73	--	--	--	< 0.068 U	< 0.068 U	< 0.068 U	< 0.068 U	--	--	--	918
PZ-44	2014 Q2	--	< 0.01 U	--	< 0.01 U	3.15	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	997
PZ-44	2014 Q4	3.91	< 0.01 U	--	< 0.01 U	3.68	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	769
PZ-44	2015 Q3	2.82	< 0.01 U	--	< 0.01 U	4.46	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	907
PZ-44	2015 Q4	0.13	< 0.01 U	--	< 0.01 U	4.56	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	968
PZ-44	2016 Q2	37.3	0.002 J	--	--	3.64	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1060
PZ-44	2016 Q4	0.559	0.002 J	--	< 0.01 U	1.23	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1270
PZ-44	2017 Q2	2.76	< 0.005 U	--	< 0.01 U	2.63	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	964
PZ-44	2017 Q4	2.19	< 0.005 U	--	< 0.01 U	4.29	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	781
PZ-44	2018 Q2	25.7	< 0.005 U	--	< 0.01 U	3.83	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1190
PZ-44	2018 Q4	8.12	< 0.005 U	--	< 0.01 U	3.65	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1040
PZ-44	2019 Q2	12.6	< 0.005 U	--	< 0.01 UJ	3.35	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	915 J
PZ-44	2019 Q4	1.48	< 0.005 U	--	< 0.01 U	4.48	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	919
PZ-44	2020 Q2	11.7	< 0.005 U	--	< 0.01 U	4.15	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	1100
PZ-44	2020 Q4	0.397	< 0.005 U	--	< 0.01 U	3.32	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1000 J
PZ-44	2021 Q3	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
PZ-44	2021 Q3	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-44	2021 Q4	1.13	< 0.005 U	--	< 0.01 U	3.92	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	787
PZ-44	2022 Q2	5.74	< 0.005 U	--	< 0.01 U	2.92	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1000
PZ-44	2022 Q4	0.619	< 0.005 U	--	< 0.01 U	3.46	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1260
PZ-44	2023 Q2	--	--	< 0.002 U	--	4.01	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	963
PZ-44	2023 Q4	--	--	< 0.006 UJ	--	4.43	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	335
PZ-44	2024 Q2	--	--	< 0.002 U	--	3.69	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	928
PZ-44	2024 Q4	--	--	0.0032	--	4.95	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	713
PZ-45	2006 Q2	--	< 0.01 U	--	--	0.9584	--	--	--	--	--	--	--	--	--	--	--
PZ-45	2008 Q4	3.264	< 0.005 R	--	0.027	1.299	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	803

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
PZ-45	2009 Q1	4.58	< 0.005 R	--	< 0.006 U	0.5	--	--	--	--	--	--	--	--	--	--	581 J
PZ-45	2009 Q2	--	< 0.01 U	--	--	0.967	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-45	2009 Q3	10.9	< 0.01 U	--	< 0.01 U	1.234	--	--	--	--	--	--	--	--	--	--	646
PZ-45	2009 Q4	2.626	< 0.01 U	--	< 0.01 U	1.335	--	--	--	--	--	--	--	--	--	--	676
PZ-45	2010 Q2	2.867	< 0.01 U	--	< 0.01 U	1.201	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	767
PZ-45	2010 Q3	1.672	< 0.01 U	--	< 0.01 U	1.281	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	66
PZ-45	2011 Q2	2.44	< 0.01 U	--	< 0.01 U	1.28	--	--	--	< 0.0722 U	< 0.0722 U	< 0.0722 U	< 0.0722 U	--	--	--	775
PZ-45	2011 Q3	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	--
PZ-45	2011 Q4	34.5	--	--	--	--	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	--
PZ-45	2012 Q3	--	< 0.01 U	--	< 0.01 U	1.09	--	--	--	< 0.047 U	< 0.047 U	< 0.047 U	< 0.047 U	--	--	--	899
PZ-45	2012 Q3	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-45	2013 Q2	15.8	< 0.01 U	--	< 0.01 U	1.53	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	1290
PZ-45	2013 Q4	21.8	< 0.01 U	--	< 0.01 U	1.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1400
PZ-45	2014 Q2	24.6	< 0.01 U	--	< 0.01 U	1.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	1190
PZ-45	2014 Q4	8.59	< 0.01 U	--	< 0.01 U	1.04	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	998
PZ-45	2015 Q3	9.01	< 0.01 U	--	< 0.01 U	1.38 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	969
PZ-45	2015 Q4	13.8	< 0.01 U	--	< 0.01 U	1.84	--	--	--	--	--	--	--	--	--	--	1180
PZ-45	2016 Q1	--	--	--	--	--	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--
PZ-45	2016 Q2	5.94	0.002 J	--	0.003 J	1.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1040
PZ-45	2016 Q4	6.95	0.002 J	--	< 0.01 U	3.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	933
PZ-45	2017 Q2	18.8	0.002 J	--	< 0.01 U	1.12	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1230
PZ-45	2017 Q4	5.24	< 0.005 U	--	< 0.01 U	1.32	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1270
PZ-45	2018 Q2	8.91	< 0.005 U	--	0.066	1.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1210
PZ-45	2018 Q4	6.37	< 0.005 U	--	< 0.01 U	1.41	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1320
PZ-45	2019 Q2	4.2	< 0.005 U	--	< 0.01 UJ	1.48	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1240
PZ-45	2019 Q4	1.28	< 0.005 U	--	< 0.01 U	1.55	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1960
PZ-45	2020 Q2	0.65	< 0.005 U	--	--	2.34	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	1240
PZ-45	2020 Q4	2.52	< 0.005 U	--	< 0.01 U	1.19 J	--	--	--	--	--	--	--	--	--	--	1180 J
PZ-45	2021 Q2	--	--	--	--	1.1 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1140
PZ-45	2021 Q4	1.38	0.004 JR	--	< 0.01 U	1.24	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1170
PZ-45	2022 Q2	2.61	< 0.005 U	--	< 0.01 U	1.09	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	961
PZ-45	2022 Q4	2.01	< 0.005 U	--	< 0.01 U	0.957	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	924
PZ-45	2023 Q2	--	--	< 0.002 UJ	--	1.62	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1060
PZ-45	2023 Q4	--	--	< 0.006 U	--	1.99	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1410
PZ-45	2024 Q2	--	--	< 0.002 U	--	1.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1070
PZ-45	2024 Q4	--	--	< 0.002 U	--	0.997	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	893
PZ-46	2006 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-46	2008 Q4	--	< 0.005 R	--	--	1.517	--	--	--	--	--	--	--	--	--	--	709
PZ-46	2009 Q1	--	< 0.005 R	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-46	2009 Q2	--	< 0.01 U	--	--	1.187	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2009 Q3	--	--	--	--	1.187	--	--	--	--	--	--	--	--	--	--	--
PZ-46	2009 Q4	11.32	< 0.01 U	--	< 0.01 U	2.495	--	--	--	--	--	--	--	--	--	--	718
PZ-46	2010 Q2	--	< 0.01 U	--	< 0.01 U	2.009	--	--	--	--	--	--	--	--	--	--	1030
PZ-46	2010 Q3	5.373	< 0.01 U	--	< 0.01 U	1.308	--	--	--	--	--	--	--	--	--	--	17
PZ-46	2011 Q2	--	--	--	--	--	--	--	--	< 0.0707 U	< 0.0707 U	< 0.0707 U	< 0.0707 U	--	--	--	--
PZ-46	2011 Q3	--	--	--	--	--	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	--	--	--	--
PZ-46	2011 Q4	--	--	--	--	--	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	--
PZ-46	2013 Q2	--	--	--	--	--	--	--	--	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	--	--	--	--
PZ-46	2013 Q4	--	--	--	--	--	--	--	--	< 0.072 U	< 0.072 U	< 0.072 U	< 0.072 U	--	--	--	--
PZ-46	2014 Q2	--	< 0.01 U	--	--	1.56	--	--	--	--	--	--	--	--	--	--	--
PZ-46	2015 Q4	2.25	< 0.01 U	--	< 0.01 U	2.93	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	1680
PZ-46	2016 Q4	2.72	0.003 J	--	< 0.01 U	3.92	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1060
PZ-46	2017 Q2	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2017 Q4	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2018 Q2	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2018 Q4	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2019 Q2	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2019 Q4	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--

Table C-1
East Plant BMP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant BMP																	
PZ-46	2020 Q2	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	1480
PZ-46	2020 Q4	6	< 0.005 U	--	< 0.01 U	2.11	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1040 J
PZ-46	2021 Q2	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2021 Q4	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2022 Q2	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2022 Q4	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
PZ-46	2023 Q2	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--	--	--
PZ-46	2023 Q4	--	--	< 0.006 U	--	3.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1540
PZ-46	2024 Q2	--	--	< 0.002 U	--	2.82	--	--	--	--	--	--	--	--	--	--	1200
PZ-46	2024 Q4	--	--	0.0024	--	2.99	--	--	--	--	--	--	--	--	--	--	856

Notes:
µg/L = micrograms per liter
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
mg/L = milligrams per liter
PCB = polychlorinated biphenyl
R = The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
U = The analyte was included in the analysis but was not detected above the reported quantitation limit, or the result is considered non-detect as a consequence of associated blank contamination.
UJ = The analyte was included in the analysis but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
WAD = weak acid dissociable
WDCN = weak dissociable cyanide

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
MW-10S	1997 Q1	0.47	0.03	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	170
MW-10S	1997 Q2	0.43	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	180
MW-10S	1997 Q3	1.1	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	160
MW-10S	1997 Q4	1.1	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	190
MW-10S	1998 Q1	2.3	0.02	--	--	0.2	--	--	--	--	--	--	--	--	--	< 0.065 U	170
MW-10S	1998 Q2	1.9	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	120
MW-10S	1998 Q3	0.75	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	170
MW-10S	1998 Q4	0.96	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	150
MW-10S	1999 Q1	0.83	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	550
MW-10S	1999 Q2	0.36	< 0.01 U	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	150
MW-10S	1999 Q3	1.6	0.01	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	230
MW-10S	1999 Q4	1.5	0.02	--	--	< 0.02 U	--	--	--	--	--	--	--	--	--	< 0.065 U	150
MW-10S	2000 Q1	3.8	< 0.01 U	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	140
MW-10S	2000 Q2	0.23	< 0.01 U	--	--	0.2	--	--	--	--	--	--	--	--	--	< 0.065 U	160
MW-10S	2000 Q3	0.96	< 0.01 U	--	--	0.2	--	--	--	--	--	--	--	--	--	< 0.065 U	170
MW-10S	2000 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	0.237	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	154
MW-10S	2001 Q1	0.82	< 0.01 U	--	< 0.01 U	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	176.74
MW-10S	2001 Q2	0.67	< 0.01 U	--	< 0.01 U	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	149.17
MW-10S	2001 Q3	3	< 0.01 U	--	< 0.01 U	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	166.25
MW-10S	2001 Q4	0.11	< 0.01 U	--	< 0.01 U	0.198	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174.89
MW-10S	2002 Q1	0.1	< 0.01 U	--	< 0.01 U	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	161.93
MW-10S	2002 Q2	< 0.01 U	< 0.01 U	--	< 0.01 U	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	154.31
MW-10S	2002 Q3	0.2	< 0.01 U	--	< 0.01 U	0.378	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	149.17
MW-10S	2002 Q4	0.19	< 0.01 U	--	< 0.01 U	0.256	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180.03
MW-10S	2003 Q1	0.558	< 0.01 U	--	< 0.01 U	0.254	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	167.069
MW-10S	2003 Q2	< 0.01 U	< 0.01 U	--	< 0.01 U	0.219	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	165.63
MW-10S	2003 Q3	3.079	< 0.01 U	--	< 0.01 U	0.21	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	167.89
MW-10S	2003 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	0.25	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180.03
MW-10S	2004 Q1	3.878	< 0.01 U	--	< 0.01 U	0.423	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	154.72
MW-10S	2004 Q2	1.999	< 0.01 U	--	< 0.01 U	0.68	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	135.59
MW-10S	2004 Q3	1.344	< 0.01 U	--	< 0.01 U	0.338	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	169.13
MW-10S	2004 Q4	2.564	< 0.01 U	--	< 0.01 U	0.494	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	158
MW-10S	2005 Q1	10.41	< 0.01 U	--	< 0.01 U	1.52	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	142.48
MW-10S	2005 Q2	13.91	< 0.01 U	--	< 0.01 U	1.073	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	145.06
MW-10S	2005 Q3	2.966	< 0.01 U	--	< 0.01 U	0.4308	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	185.2
MW-10S	2005 Q4	2.911	0.0175	--	< 0.01 U	1.604	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	122.57
MW-10S	2006 Q1	1.709 J	< 0.01 U	--	< 0.01 U	1.846	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	124.9
MW-10S	2006 Q2	0.112	< 0.01 U	--	< 0.01 U	0.6968	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	149.01
MW-10S	2006 Q3	1.537	< 0.01 U	--	< 0.01 U	0.8895	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	142.47
MW-10S	2006 Q4	0.311	< 0.01 U	--	< 0.01 U	0.3994	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	170.44
MW-10S	2007 Q1	0.666	< 0.01 U	--	< 0.01 U	0.2885	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174.62
MW-10S	2007 Q2	2.737	< 0.01 U	--	< 0.01 U	0.3366	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	179.72
MW-10S	2007 Q3	0.247	< 0.01 U	--	< 0.01 U	0.2415	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	185.6
MW-10S	2007 Q4	0.892	< 0.005 U	--	< 0.005 U	0.2934	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	220
MW-10S	2008 Q1	4.23	< 0.01 U	--	< 0.01 U	0.3492	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186
MW-10S	2008 Q2	3.272	< 0.005 U	--	< 0.01 UJ	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178 J
MW-10S	2008 Q3	4.768	< 0.005 U	--	< 0.01 U	0.2596	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	296
MW-10S	2008 Q4	2.522	< 0.005 U	--	< 0.01 U	0.2707	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	204
MW-10S	2009 Q1	1.57	< 0.01 U	--	< 0.01 UJ	0.2	--	--	--	< 0.481 U	< 0.481 U	< 0.481 U	< 0.481 U	--	--	--	197
MW-10S	2009 Q2	5.07 J	< 0.01 U	--	< 0.01 U	0.2887	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	199
MW-10S	2009 Q3	5.68 J	< 0.01 U	--	< 0.01 U	0.2054	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	187
MW-10S	2009 Q4	2.444	< 0.01 U	--	< 0.01 U	0.2209	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	229
MW-10S	2010 Q1	3.551	0.0243	--	0.239	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174
MW-10S	2010 Q2	2.062	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201
MW-10S	2010 Q3	1.06	< 0.01 U	--	< 0.01 U	0.2103	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	190
MW-10S	2010 Q4	3.647 J	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	181
MW-10S	2011 Q1	2.62	< 0.01 U	--	< 0.01 U	0.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	211
MW-10S	2011 Q2	2.21	< 0.01 U	--	< 0.01 U	0.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	200
MW-10S	2011 Q3	68.7	< 0.01 U	--	< 0.01 U	0.24	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	249

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
MW-10S	2011 Q4	7.55	< 0.01 U	--	0.016 J	0.2	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	256
MW-10S	2012 Q1	1.22	< 0.01 U	--	< 0.01 U	0.17	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	245
MW-10S	2012 Q3	1.93 J	< 0.01 U	--	< 0.01 U	0.14	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	211
MW-10S	2012 Q3	1.24	< 0.01 U	--	< 0.01	0.14	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	327
MW-10S	2012 Q4	9.43	< 0.01 U	--	< 0.01 UJ	0.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	233
MW-10S	2013 Q1	2.45	< 0.01 U	--	< 0.01 U	0.14	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	198
MW-10S	2013 Q2	1.7	< 0.01 U	--	< 0.01 U	< 0.1 U	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	199
MW-10S	2013 Q3	1.16	< 0.01 U	--	< 0.01 U	0.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	193
MW-10S	2013 Q4	2.53	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	179
MW-10S	2014 Q1	6.35	< 0.01 U	--	< 0.01 U	0.15	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	208
MW-10S	2014 Q2	1.13	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	155
MW-10S	2014 Q3	1.74 J	< 0.01 U	--	< 0.01 U	0.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	173
MW-10S	2014 Q4	1.81 J	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	158
MW-10S	2015 Q1	2.37	< 0.01 U	--	< 0.01 U	0.18	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	189
MW-10S	2015 Q3	0.63 J	< 0.01 U	--	< 0.01 U	0.14	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	199
MW-10S	2015 Q3	4.08 J	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	174
MW-10S	2015 Q4	2.65	< 0.01 U	--	< 0.01 U	0.17	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	225
MW-10S	2016 Q1	0.72	< 0.005 U	--	< 0.005 U	0.141	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	124
MW-10S	2016 Q2	0.787	0.002 J	--	0.003 J	0.178	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	121
MW-10S	2016 Q3	1.25 J	0.002 J	--	< 0.01 U	< 0.05 U	--	--	--	< 0.02 U	< 0.02 U	< 0.021 U	< 0.021 U	--	--	--	168
MW-10S	2017 Q1	1.36	< 0.005 U	--	< 0.01 U	0.107	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	127
MW-10S	2017 Q1	0.504	< 0.005 U	--	< 0.01 U	0.101	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	128
MW-10S	2017 Q2	0.189	< 0.005 U	--	< 0.01 U	0.162	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	111
MW-10S	2017 Q3	0.55	< 0.005 U	--	< 0.01 U	0.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	162
MW-10S	2017 Q4	1.02	< 0.005 U	--	< 0.01 U	0.134	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	136
MW-10S	2018 Q1	0.79	< 0.005 U	--	< 0.01 U	0.127	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	122
MW-10S	2018 Q2	3.12	< 0.005 U	--	--	0.132	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	145
MW-10S	2018 Q4	1.25	< 0.005 U	--	< 0.01 U	0.134	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	175
MW-10S	2018 Q4	4.53	< 0.005 U	--	< 0.01 U	0.136	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	144
MW-10S	2019 Q1	7	< 0.005 U	--	< 0.01 U	0.112	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	142
MW-10S	2019 Q3	4.38	< 0.005 U	--	< 0.01 U	0.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	146
MW-10S	2019 Q4	0.26	< 0.005 U	--	< 0.01 U	0.157	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	103
MW-10S	2020 Q1	0.0665	0.004 J	--	< 0.01 U	0.14	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	86.4
MW-10S	2020 Q2	0.135	< 0.005 U	--	< 0.01 U	0.18	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	93.4
MW-10S	2020 Q3	0.437	< 0.005 U	--	< 0.01 U	0.171	--	--	--	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	--	--	--	158
MW-10S	2020 Q4	0.175	< 0.005 U	--	< 0.01 U	< 0.25 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	110 J
MW-10S	2021 Q1	0.0579	< 0.005 U	--	--	0.142 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	71.5
MW-10S	2021 Q2	0.0426	< 0.005 U	--	< 0.01 U	0.14	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	148
MW-10S	2021 Q3	0.0302	< 0.005 R	--	--	0.189	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	81.4
MW-10S	2021 Q4	0.0838	< 0.005 U	--	< 0.01 U	0.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	70.3
MW-10S	2022 Q1	0.0578	< 0.005 UJ	--	< 0.01 U	0.129	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	70
MW-10S	2022 Q2	0.0169	< 0.005 U	--	0.011 J	0.106	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	69.9
MW-10S	2022 Q3	0.119	< 0.005 U	--	< 0.01 U	0.105	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	119 J
MW-10S	2022 Q4	0.0602	< 0.005 U	--	< 0.01 U	0.14	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	84.1
MW-10S	2023 Q1	--	--	0.00088 J	--	0.079	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	78
MW-10S	2023 Q2	--	--	< 0.002 U	--	0.124	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	80.5
MW-10S	2023 Q3	--	--	0.0011 J	--	0.138	--	--	--	< 0.065 U	< 0.065 U	0.041	0.036	--	--	--	111
MW-10S	2023 Q4	--	--	< 0.006 U	--	0.115	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	106
MW-10S	2024 Q1	--	--	< 0.002 UJ	--	0.199	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	71.4
MW-10S	2024 Q2	--	--	< 0.002 U	--	0.614	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	120
MW-10S	2024 Q3	< 0.012 U	< 0.006 U	--	--	0.16	--	--	--	--	--	--	--	--	--	--	80
MW-10S	2024 Q3	--	--	< 0.002 UJ	--	0.159	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	106
MW-10S	2024 Q4	--	--	0.0031	--	0.133	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	108
MW-39S	1999 Q2	0.44	0.25	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	120
MW-39S	1999 Q3	0.64	0.2	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	100
MW-39S	1999 Q4	0.17	0.26	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	140
MW-39S	2000 Q1	5.2	0.3	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	97
MW-39S	2000 Q2	0.4	0.29	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	130
MW-39S	2000 Q3	0.4	0.29	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	110

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
MW-39S	2000 Q4	< 0.01 U	0.228	--	0.0275	0.467	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88
MW-39S	2001 Q1	2.44	0.244	--	< 0.01 U	1.366	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	112.34
MW-39S	2001 Q2	5.12	0.233	--	0.0155	0.238	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	118.92
MW-39S	2001 Q3	14.4	0.192	--	0.0395	1.625	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.087	--	--	--	98.55
MW-39S	2001 Q4	0.43	0.266	--	0.0325	0.714	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	111.11
MW-39S	2002 Q1	0.19	0.375	--	0.0675	0.629	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	122.83
MW-39S	2002 Q2	0.9	0.382	--	0.0645	0.886	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	132.91
MW-39S	2002 Q3	1.02	0.426	--	0.0565	0.668	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	130.24
MW-39S	2002 Q4	0.253	0.297	--	0.051	0.573	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	124.48
MW-39S	2003 Q1	12.19	0.318	--	0.087	0.793	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	121.804
MW-39S	2003 Q2	64.28	0.312	--	0.0735	2.762	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	132.09
MW-39S	2003 Q3	0.098	0.379	--	0.067	0.436	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	131.47
MW-39S	2003 Q4	12.44	0.294	--	0.061	0.424	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	122.01
MW-39S	2004 Q1	8.646	0.26	--	0.067	0.524	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	117.48
MW-39S	2004 Q2	13.063	< 0.01 U	--	0.0665	1.06	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	98.76
MW-39S	2004 Q3	11.82	0.169	--	0.0315	1.546	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	79.42
MW-39S	2004 Q4	24.04	0.177	--	0.0655	2.396	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	77.19
MW-39S	2005 Q1	34.11	0.149	--	0.0595	1.918	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	87.81
MW-39S	2005 Q2	5.41	0.124	--	0.0365	2.126	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	52.43
MW-39S	2005 Q3	14.18	0.189	--	0.066	1.409	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	82.41
MW-39S	2005 Q4	29.79	0.11	--	0.037	2.51	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	84.04
MW-39S	2006 Q1	19.12	0.0765	--	0.0265	3.988	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	68.33
MW-39S	2006 Q2	7.91	0.0855	--	0.031	2.903	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	71.45
MW-39S	2006 Q3	9.547	0.111	--	0.043	2.134	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	79.31
MW-39S	2006 Q4	0.522	0.12	--	0.035	1.759	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	87.92
MW-39S	2007 Q1	1.93	0.162	--	0.049	1.691	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	94.77
MW-39S	2007 Q2	4.115	0.159	--	0.071	1.618	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	110.21
MW-39S	2007 Q3	10.94	0.15	--	0.066	1.311	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	109.74
MW-39S	2007 Q4	0.934	0.16	--	0.017	1.346	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	140
MW-39S	2008 Q1	98.7	0.134	--	0.013	1.786	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	119
MW-39S	2008 Q2	299.5	0.22	--	0.021 J	1.187	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	132 J
MW-39S	2008 Q3	63.02	--	--	< 0.01 U	1.04	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	145
MW-39S	2008 Q4	418.9	0.19	--	< 0.01 U	0.91	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	175
MW-39S	2009 Q1	101	0.237	--	< 0.01 UJ	0.96	--	--	--	< 0.513 U	< 0.513 U	< 0.513 U	< 0.513 U	--	--	--	207
MW-39S	2009 Q2	22.4	0.206	--	< 0.01 U	1.207	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	197 R
MW-39S	2009 Q3	43	0.123 J	--	0.0127	2.119	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	112
MW-39S	2009 Q4	28.565	0.168	--	0.0103	1.017	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	159
MW-39S	2010 Q1	41.84	0.0688	--	< 0.01 U	2.426	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	131
MW-39S	2010 Q2	9.402	0.068	--	< 0.01 U	2.606	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	91.4
MW-39S	2010 Q3	4.244	0.055	--	< 0.01 U	2.774	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	83.2
MW-39S	2010 Q4	10.43	0.057	--	< 0.01 U	2.693	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	74
MW-39S	2011 Q1	35.2	0.053	--	< 0.01 U	2.75	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	70
MW-39S	2011 Q2	15.6	0.059	--	< 0.01 U	2.45	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	77
MW-39S	2011 Q3	0.86	< 0.01 U	--	< 0.01 U	0.45	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	477
MW-39S	2011 Q4	61.1	0.098	--	< 0.01 UJ	1.9	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	130
MW-39S	2012 Q1	37.7	0.05	--	< 0.01 U	2.74	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	92.3
MW-39S	2012 Q3	25.9 J	0.057	--	< 0.01 U	2.51	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	83.3
MW-39S	2012 Q3	8.08	0.073	--	< 0.01 UJ	1.27	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	98.3
MW-39S	2012 Q4	48.2	0.072	--	< 0.01 UJ	2.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	123
MW-39S	2013 Q1	35.9	0.085	--	< 0.01 U	1.96	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	122
MW-39S	2013 Q2	53.4	0.079	--	< 0.01 U	1.59	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	125
MW-39S	2013 Q3	30.3 J	0.07	--	< 0.01 U	2.01	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	165
MW-39S	2013 Q4	25.4	0.071	--	< 0.01 U	1.97	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	174
MW-39S	2014 Q1	23.3	--	--	< 0.01 U	1.91	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	151
MW-39S	2014 Q2	61.3	0.068	--	< 0.01 U	1.73	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	133
MW-39S	2014 Q3	27.8 J	0.065	--	< 0.01 U	1.93	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	120
MW-39S	2014 Q4	22.1 J	0.061	--	< 0.01 U	1.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	129
MW-39S	2015 Q1	33.2	0.066	--	< 0.01 U	1.62	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	132
MW-39S	2015 Q3	468	0.059	--	< 0.01 U	0.98	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	115

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
MW-39S	2015 Q3	7.54 J	0.087	--	< 0.01 U	1.66	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	146
MW-39S	2015 Q4	3.51	0.066	--	< 0.01 U	1.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	148
MW-39S	2016 Q1	14	0.082	--	0.006	1.6	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	171
MW-39S	2016 Q2	11.9	0.08	--	0.008	1.36	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	175
MW-39S	2016 Q3	23.4 J	0.064	--	< 0.01 U	1.15	--	--	--	< 0.02 U	< 0.02 U	< 0.021 U	< 0.021 U	--	--	--	183
MW-39S	2017 Q1	17.6 J	0.035	--	< 0.01 U	1.35	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	166
MW-39S	2017 Q1	16.3 J	0.061	--	< 0.01 U	1.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	164
MW-39S	2017 Q2	4.81	0.047	--	0.01	1.09	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	158
MW-39S	2017 Q3	12.2	0.063	--	0.0071 J	1.43	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	149
MW-39S	2017 Q4	14.3	0.03	--	< 0.01 U	1.46	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	124
MW-39S	2018 Q1	32.8	0.029	--	0.0078 J	1.76	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	102
MW-39S	2018 Q2	18.3	0.05	--	--	1.29	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	123
MW-39S	2018 Q4	23.6	0.054	--	0.0061 J	1.46 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	149
MW-39S	2018 Q4	2.83	0.035	--	0.012	1.69	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	157
MW-39S	2019 Q1	18.9	0.029 J	--	0.017 B	1.69	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	133
MW-39S	2019 Q2	0.094 J	0.073	--	< 0.01 UJ	0.234 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	65.6
MW-39S	2019 Q3	24.2	0.0501 J	--	< 0.01 U	1.78	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	133
MW-39S	2019 Q4	4.52	0.061	--	< 0.01 U	1.67	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	176
MW-39S	2020 Q1	0.488	0.027	--	< 0.01 U	1.57	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	133
MW-39S	2020 Q2	2.04	0.047	--	< 0.01 U	1.65	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	142
MW-39S	2020 Q3	0.144	0.048	--	< 0.01 U	1.76	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	191
MW-39S	2020 Q4	5.51 J	0.022	--	< 0.01 U	1.33	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	210 J
MW-39S	2021 Q1	3.15	0.012	--	--	1.85 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	138
MW-39S	2021 Q2	0.213	0.024	--	< 0.01 U	2.11	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	111
MW-39S	2021 Q3	0.386	0.003 R	--	--	1.48	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	238
MW-39S	2021 Q4	0.798	0.019 J	--	< 0.01 U	2.72	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	118
MW-39S	2022 Q1	0.298	0.019 J	--	< 0.01 U	2.78	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	84.6
MW-39S	2022 Q2	0.816	0.02	--	0.011 J	2.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88.3
MW-39S	2022 Q3	0.112	0.052	--	< 0.01 U	1.71	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	249
MW-39S	2022 Q4	0.0753	0.046	--	< 0.01 U	1.89	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	268
MW-39S	2023 Q1	--	--	0.0018 J	--	1.81	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	170
MW-39S	2023 Q2	--	0.031	< 0.002 U	< 0.01 U	2.45	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	137
MW-39S	2023 Q3	--	--	0.0017 J	--	1.65	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285
MW-39S	2023 Q4	--	--	< 0.006 U	--	1.54	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	330
MW-39S	2024 Q1	--	--	0.0017 J	--	2.48	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	211
MW-39S	2024 Q2	--	--	< 0.002 U	--	3.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	130
MW-39S	2024 Q3	--	--	< 0.002 U	--	3.46	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	98.6
MW-39S	2024 Q4	--	--	< 0.002 U	--	2.55	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	117
MW-40S	1999 Q2	0.41	0.43	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	110
MW-40S	1999 Q3	0.21	0.48	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	110
MW-40S	1999 Q4	0.22	0.39	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	97
MW-40S	2000 Q2	0.57	0.34	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	100
MW-40S	2000 Q3	0.56	0.11	--	--	0.3	--	--	--	--	--	--	--	--	--	< 0.065 U	74
MW-40S	2000 Q4	< 0.01 U	0.316	--	0.028	0.248	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88
MW-40S	2001 Q1	< 0.01 U	0.0715	--	0.013	0.303	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88.47
MW-40S	2001 Q2	< 0.01 U	0.383	--	0.031	0.164	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	96.5
MW-40S	2001 Q3	0.12	0.363	--	0.08	< 0.2 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	84.36
MW-40S	2001 Q4	0.23	0.363	--	0.0405	0.272	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	86.62
MW-40S	2002 Q1	0.1	0.167	--	0.038	0.24	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88.88
MW-40S	2002 Q2	0.15	0.383	--	0.0635	0.224	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	87.65
MW-40S	2002 Q3	0.1	0.046	--	0.063	0.286	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	0.21
MW-40S	2002 Q4	< 0.01 U	0.325	--	0.039	0.294	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	91.97
MW-40S	2003 Q1	< 0.011 U	0.347	--	0.065	0.29	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	83.123
MW-40S	2003 Q2	< 0.01 U	0.32	--	0.0585	0.281	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180.65
MW-40S	2003 Q3	0.053	0.344	--	0.064	0.274	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	83.12
MW-40S	2003 Q4	0.041	0.358	--	0.0685	0.286	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	86
MW-40S	2004 Q1	0.17	0.321	--	0.108	0.22	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	84.56
MW-40S	2004 Q2	0.847	0.0295	--	0.0845	0.456	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	82.09
MW-40S	2004 Q3	0.117	0.32	--	< 0.01 U	0.351	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	83.53

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
MW-40S	2004 Q4	0.134	0.359	--	0.131	0.327	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	76.77
MW-40S	2005 Q1	0.082	0.313	--	0.075	0.304	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	82.51
MW-40S	2005 Q2	0.134	0.3	--	0.0975	0.3011	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	89.22
MW-40S	2005 Q3	1.5	0.291	--	< 0.01 U	0.2958	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	80.37
MW-40S	2005 Q4	0.138	0.239	--	0.0645	0.2466	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	1.197	< 0.065 U	< 0.065 U	--	--	--	103.81
MW-40S	2006 Q1	1.1	0.253	--	0.0765	0.259	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	63.86
MW-40S	2006 Q2	1.067 J	0.261	--	0.0855	0.2648	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	87.36
MW-40S	2006 Q3	0.323	0.26	--	0.097	0.2699	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	71.77
MW-40S	2006 Q4	0.138	0.265	--	0.0875	0.2709	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.02
MW-40S	2007 Q1	0.451	0.28	--	0.0915	0.2296	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	30.93
MW-40S	2007 Q2	0.148	0.251	--	0.081	0.2178	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	72.57
MW-40S	2007 Q3	1.278	0.25	--	0.061	0.2445	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	69.6
MW-40S	2007 Q4	0.465	0.24	--	0.017	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	63
MW-40S	2008 Q1	1.241	0.17	--	0.017 J	0.2374	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	73
MW-40S	2008 Q2	0.437 R	0.2	--	0.038 J	0.2151	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	90.4 J
MW-40S	2008 Q3	0.033	--	--	0.012	0.2272	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	104 J
MW-40S	2008 Q4	4.232	0.17	--	< 0.01 U	0.223	--	--	--	< 0.065 U	0.108	< 0.065 U	< 0.065 U	--	--	--	82.8
MW-40S	2009 Q1	0.72	0.155	--	0.0123 J	0.15	--	--	--	< 0.508 U	< 0.508 U	< 0.508 U	< 0.508 U	--	--	--	82.7
MW-40S	2009 Q2	1.91	0.103	--	< 0.01 U	0.2545	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	79.1
MW-40S	2009 Q3	0.565	0.179 J	--	0.012	0.2113	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	69.7
MW-40S	2009 Q4	2.048	0.175	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	86.1
MW-40S	2010 Q1	1.849	0.171	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	73.2
MW-40S	2010 Q2	0.254	0.162	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	69.7
MW-40S	2010 Q3	0.377	0.201	--	< 0.01 U	0.2278	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	67
MW-40S	2011 Q1	0.72	0.182	--	< 0.01 U	0.26	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	63
MW-40S	2011 Q2	0.72	0.179	--	< 0.01 U	0.26	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	60.3
MW-40S	2011 Q3	0.28	0.17	--	0.02	0.27	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	58.5
MW-40S	2011 Q4	0.36	0.127	--	< 0.01 UJ	0.27	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	73.4
MW-40S	2012 Q1	0.39	0.165	--	< 0.01 U	0.21	--	--	--	< 0.061 UJ	< 0.061 UJ	< 0.061 UJ	< 0.061 UJ	--	--	--	58.6
MW-40S	2012 Q3	0.56 J	0.167	--	< 0.01 U	0.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	58.9
MW-40S	2012 Q3	0.26	0.168	--	< 0.01 UJ	0.19	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	58.7
MW-40S	2012 Q4	0.38	0.155	--	< 0.01 UJ	0.17	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	58.2
MW-40S	2013 Q1	0.96	0.159	--	< 0.01 U	0.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	52.2
MW-40S	2013 Q2	0.31	0.143	--	< 0.01 U	0.19	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	61.1
MW-40S	2013 Q3	< 0.1 U	0.15	--	< 0.01 U	0.21	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	59.5
MW-40S	2013 Q4	0.76	0.14	--	< 0.01 U	0.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	65.7
MW-40S	2014 Q1	0.11	0.137 J	--	< 0.01 U	0.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	58
MW-40S	2014 Q2	0.14	0.142	--	< 0.01 U	0.2	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	61.7
MW-40S	2014 Q3	0.66 J	0.137	--	0.013	0.2	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	57.4
MW-40S	2014 Q4	0.13 J	0.13	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	58.4
MW-40S	2015 Q1	< 0.1 U	0.141	--	< 0.01 U	0.21	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	57.7
MW-40S	2015 Q3	< 0.1 U	0.114	--	0.011	0.24	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	71.9
MW-40S	2015 Q3	0.1 UJ	0.141	--	< 0.01 U	0.19	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	62.9
MW-40S	2015 Q4	< 0.1 U	0.109	--	< 0.01 U	0.29	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	71.1
MW-40S	2016 Q1	0.04 J	0.109	--	0.007	0.239	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	67.7
MW-40S	2016 Q2	0.104	0.13 J	--	0.011 J	0.23	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	54.8
MW-40S	2016 Q3	0.208 J	0.127	--	< 0.01 U	0.204	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	59.9
MW-40S	2017 Q1	0.068 J	0.113	--	0.01	0.111	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	57.9
MW-40S	2017 Q1	0.076 J	0.133	--	0.0084 J	0.161	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	54.7
MW-40S	2017 Q2	< 0.1 U	0.12	--	0.018	0.152	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	55.8
MW-40S	2017 Q3	0.092 J	0.111	--	0.008 J	0.198	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	58.5
MW-40S	2017 Q4	0.036 J	0.12	--	0.014	0.19	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.2
MW-40S	2018 Q1	0.05 J	0.071	--	0.01	0.169	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.7
MW-40S	2018 Q2	0.084 J	0.083	--	--	0.179	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.3
MW-40S	2018 Q4	0.048 J	0.112	--	0.0092 J	0.192	--	--	--	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	--	--	--	56.9
MW-40S	2018 Q4	0.169	0.075	--	0.0096 J	0.212	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	63.7
MW-40S	2019 Q1	0.121	0.116	--	0.021 B	0.175	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.5
MW-40S	2019 Q2	69.2	0.044	--	< 0.01 UJ	0.991 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	130
MW-40S	2019 Q3	0.113	0.111	--	< 0.01 U	0.237	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	58.9

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
MW-40S	2019 Q4	0.054 J	0.085	--	< 0.01 U	0.196	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	58.6
MW-40S	2020 Q1	0.0104	0.066	--	< 0.01 U	0.201	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	58
MW-40S	2020 Q2	< 0.1 U	0.082	--	< 0.01 U	0.31	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	56.2
MW-40S	2020 Q3	< 0.1 U	0.056	--	< 0.01 U	0.192	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	57.6
MW-40S	2020 Q4	< 0.1 U	0.046	--	< 0.01 U	0.179	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	57.6 J
MW-40S	2021 Q1	0.00454 J	0.097	--	--	0.192 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	59.8
MW-40S	2021 Q2	0.00409 J	0.077	--	< 0.01 U	0.173	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.2
MW-40S	2021 Q3	0.00498 J	0.002 R	--	--	0.205	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	61.5
MW-40S	2021 Q4	0.00328 J	--	--	--	0.258	--	--	--	--	--	--	--	--	--	--	55.4
MW-40S	2021 Q4	0.00846 J	0.097	--	< 0.01 U	0.198	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	53.9
MW-40S	2022 Q1	0.00795 J	0.105 J	--	< 0.01 U	0.148	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	53.4
MW-40S	2022 Q3	0.0053 J	0.086	--	< 0.01 U	0.16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	62.7
MW-40S	2022 Q4	0.00445 J	0.061	--	< 0.01 U	0.16 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.5
MW-40S	2023 Q2	--	--	< 0.002 U	--	0.239	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	69.6
MW-40S	2023 Q2	--	--	< 0.002 U	--	0.138	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	56.7
MW-40S	2023 Q3	--	--	0.0013 J	--	0.219	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	54.8
MW-40S	2023 Q4	--	--	< 0.006 U	--	0.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	52.4
MW-40S	2024 Q2	--	--	< 0.002 U	--	0.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	58.5
MW-40S	2024 Q2	--	--	< 0.002 U	--	0.617	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	55.6
MW-40S	2024 Q3	--	--	< 0.002 U	--	0.224	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	62.8
MW-40S	2024 Q4	--	--	< 0.002 U	--	0.178	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	57.5
MW-45	2006 Q2	1.714	1.64	--	0.38	0.7049	--	--	--	--	--	--	--	--	--	--	141.43
MW-45	2006 Q3	1.506	1.87	--	0.509	0.7454	--	--	--	--	--	--	--	--	--	--	128.36
MW-45	2006 Q4	0.586	1.38	--	0.302	0.5272	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	74.13
MW-45	2007 Q1	2.079	1.98	--	0.361	0.6317	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	135.42
MW-45	2007 Q2	2.259	1.92	--	0.579	0.6846	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	154.6
MW-45	2007 Q3	3.254	1.6	--	0.341	0.6643	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	132.47
MW-45	2007 Q4	0.712	1.1	--	0.06	0.5919	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	150
MW-45	2008 Q1	139.5	1.09	--	0.057	0.6421	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	144
MW-45	2008 Q2	39.24	1.3	--	0.096 J	0.7549	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	204 J
MW-45	2008 Q3	124.9	--	--	0.035	0.4408	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	139
MW-45	2008 Q4	85.59	0.85	--	< 0.01 U	0.7445	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	188
MW-45	2009 Q1	44.5	0.161	--	0.0328 J	0.7	--	--	--	< 0.521 U	< 0.521 U	< 0.521 U	< 0.521 U	--	--	--	180
MW-45	2009 Q2	7.38	0.937	--	0.0306	0.8509	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	191
MW-45	2009 Q3	8.85	0.698	--	0.0492 J	0.6361	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	164
MW-45	2009 Q4	13.46	1.66	--	0.0274	0.8217	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	191
MW-45	2010 Q1	89.56	1.26	--	0.0284	0.6434	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	191
MW-45	2010 Q2	47.28	1.85	--	0.026	0.6678 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	113
MW-45	2010 Q3	16.98	2.49	--	0.026	0.753	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	132
MW-45	2010 Q4	53.79	1.04	--	< 0.01 U	0.3794	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	124
MW-45	2011 Q1	55.7	1.53	--	< 0.01 U	0.74	--	--	--	< 0.0657 U	< 0.0657 U	< 0.0657 U	< 0.0657 U	--	--	--	124
MW-45	2011 Q2	16.3	1.35	--	0.026	0.78	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	119
MW-45	2011 Q3	12.9	0.944	--	0.072	0.69	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	107
MW-45	2011 Q4	54.9	0.908	--	< 0.01 UJ	0.56	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	109
MW-45	2012 Q1	29.6	0.981	--	0.014	0.5	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	116
MW-45	2012 Q3	22.9 J	1.15	--	0.033	0.63	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	104
MW-45	2012 Q3	120	0.68	--	0.011 J	0.46	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	134
MW-45	2012 Q4	10.4	0.836	--	0.017 J	0.48	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	122
MW-45	2013 Q1	42.4 J	0.859	--	0.015	0.49	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	111
MW-45	2013 Q2	51	0.843	--	0.021	0.53	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	119
MW-45	2013 Q3	28.9	0.97	--	0.014	0.55	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	110
MW-45	2013 Q4	53.3	0.967	--	0.023	0.53	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	120
MW-45	2014 Q1	20.9	0.895 J	--	0.026	0.48	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	115
MW-45	2014 Q2	62.1	0.931	--	0.029	0.52	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	117
MW-45	2014 Q3	34.2 J	0.871	--	0.038	0.49	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	117
MW-45	2014 Q4	31 J	0.883	--	0.026	0.49	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	170
MW-45	2015 Q1	12.2	0.91	--	0.024	0.5	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	134
MW-45	2015 Q3	30.2	0.848	--	0.037	0.49	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	154
MW-45	2015 Q3	6.41 J	0.66	--	0.024	0.42	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	700

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
MW-45	2015 Q4	42.7	0.532	--	0.016	0.48	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	334
MW-45	2016 Q1	4.6	0.709	--	0.046	0.433	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	115
MW-45	2016 Q2	12.4	0.567	--	0.055	0.433	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	373
MW-45	2016 Q3	3.66 J	0.408	--	0.007 J	0.388	--	--	--	< 0.021 U	< 0.021 U	< 0.022 U	< 0.022 U	--	--	--	621
MW-45	2017 Q1	4.98	0.566	--	0.025	0.259	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	608
MW-45	2017 Q1	7.61	0.644	--	0.051	0.385	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	565
MW-45	2017 Q2	2.92	0.603	--	0.086	0.335	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	471
MW-45	2017 Q3	2.89	0.475	--	0.065	0.437	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	500
MW-45	2017 Q4	9.79	0.569	--	0.054	0.406	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	496
MW-45	2018 Q1	10.2 J	0.303 J	--	0.064	0.421	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	508
MW-45	2018 Q2	5.83	0.349	--	0.041	0.395	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	471
MW-45	2018 Q4	7.04	0.435	--	0.059	0.405	--	--	--	< 0.02 U	< 0.02 U	< 0.021 U	< 0.021 U	--	--	--	871
MW-45	2018 Q4	1.15	0.499	--	0.075	0.405	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	702
MW-45	2019 Q1	23.8	0.53	--	0.078 B	0.391	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	635
MW-45	2019 Q2	19.6	0.362	--	< 0.01 UJ	0.36 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	485
MW-45	2019 Q3	16.3	0.35	--	0.022	0.456	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	516
MW-45	2019 Q4	2.23	0.401	--	0.013	0.452	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	742
MW-45	2020 Q1	0.747	0.439	--	< 0.01 U	0.397	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	594
MW-45	2020 Q2	0.347	0.458	--	0.035	0.43	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	531
MW-45	2020 Q3	0.448	0.398	--	0.024	< 1.25 U	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	844
MW-45	2020 Q4	0.267	0.022	--	0.013	< 1.25 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	686 J
MW-45	2021 Q1	0.564	0.363	--	--	0.393 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	612
MW-45	2021 Q2	0.114	0.436	--	0.029	0.415	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	562
MW-45	2021 Q3	0.0681	0.024 R	--	--	1.15 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	696
MW-45	2021 Q4	0.0704	0.451	--	0.014	0.401	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	548
MW-45	2022 Q1	0.144	0.452 J	--	0.014	0.326	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	490
MW-45	2022 Q2	0.135	0.458	--	0.022 J	0.324	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	457
MW-45	2022 Q3	0.0477	0.599	--	< 0.01 U	0.36	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	643
MW-45	2022 Q4	0.0431	0.384	--	0.014	0.343	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	667
MW-45	2023 Q1	--	--	0.0039	--	0.312	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	531
MW-45	2023 Q2	--	--	0.0022	--	0.337	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	578
MW-45	2023 Q3	--	--	0.0082 J	--	0.437	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	558
MW-45	2023 Q4	--	--	< 0.006 U	--	0.387	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	722
MW-45	2024 Q1	--	--	0.011 J	--	0.42	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	510
MW-45	2024 Q2	--	--	0.0012 J	--	0.824	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	494
MW-45	2024 Q3	--	--	0.0011 J	--	0.579	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	428
MW-45	2024 Q4	--	--	< 0.002 U	--	0.433	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	428
SLPWETE	2006 Q2	0.109	< 0.01 U	--	< 0.01 U	3.222	--	--	--	--	--	--	--	--	--	--	--
SLPWETE	2006 Q3	4.91	< 0.01 U	--	< 0.01 U	4.632	--	--	--	--	--	--	--	--	--	--	--
SLPWETE	2006 Q4	0.141	0.074	--	0.018	3.102	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	41.18
SLPWETE	2007 Q2	0.773	< 0.01 U	--	< 0.01 U	3.285	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	33.86
SLPWETE	2007 Q3	1.454	< 0.01 U	--	< 0.01 U	5.929	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	21.3
SLPWETE	2007 Q4	1.964	0.043	--	< 0.005 U	3.62	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	82
SLPWETE	2008 Q2	0.26 R	0.012	--	0.018	0.7323	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 2 U
SLPWETE	2008 Q3	1.339	< 0.005 U	--	< 0.01 U	4.228	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 2 U
SLPWETE	2008 Q4	2.917	< 0.005 R	--	< 0.01 U	4.399	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	64.5
SLPWETE	2009 Q2	0.447	< 0.01 U	--	< 0.01 U	2.758	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 5 U
SLPWETE	2009 Q4	0.354	< 0.01 U	--	< 0.01 U	3.27	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 5 U
SLPWETE	2010 Q2	--	< 0.01 U	--	< 0.01 U	3.439 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	16.3
SLPWETE	2010 Q3	0.589	< 0.01 U	--	< 0.01 U	2.95	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	11.4
SLPWETE	2011 Q2	0.4	< 0.01 U	--	< 0.01 U	2.48	--	--	--	< 0.0663 U	< 0.0663 U	< 0.0663 U	< 0.0663 U	--	--	--	5.68
SLPWETE	2011 Q3	0.99	< 0.01 U	--	< 0.01 U	3.12	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	17.9
SLPWETE	2011 Q4	0.2	< 0.01 U	--	< 0.01 UJ	0.92	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	46.9
SLPWETE	2013 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	1.05	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	7.2
SLPWETE	2013 Q3	0.26	< 0.01 U	--	< 0.01 U	2.88	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	199
SLPWETE	2014 Q2	0.13	< 0.01 U	--	< 0.01 U	3.44	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	19.8

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant Landfill																	
SLPWETE	2014 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	3.14	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	15.6
SLPWETE	2015 Q3	0.54	< 0.01 U	--	< 0.01 U	3.93	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	6.5
SLPWETE	2015 Q4	0.81	0.016	--	< 0.01 U	4.52	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	46.4
SLPWETE	2019 Q2	0.14	< 0.005 U	--	< 0.01 UJ	10.8 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2.64
SLPWETE	2019 Q4	0.082 J	< 0.005 U	--	< 0.01 U	2.34	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	13
SLPWETE	2021 Q1	0.0447	< 0.005 U	--	--	0.087 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1.08
SLPWETE	2021 Q2	0.0415	< 0.005 U	--	< 0.01 U	3.63	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	5.58
SLPWETE	2021 Q3	0.123	0.001 R	--	--	3.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	4.42
SLPWETE	2021 Q4	0.00548 J	--	--	--	4.06	--	--	--	--	--	--	--	--	--	--	14.9
SLPWETE	2021 Q4	0.0566	< 0.005 U	--	< 0.01 U	2.04	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	8.33
SLPWETE	2022 Q2	0.0695	< 0.005 U	--	< 0.01 U	3.42	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	6.01
SLPWETE	2022 Q3	0.211	< 0.005 U	--	< 0.01 U	3.76	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	4.37
SLPWETE	2022 Q4	0.554	0.008	--	< 0.01 U	3.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	0.011 J	--	--	--	15.9
SLPWETE	2023 Q2	--	--	< 0.002 U	--	3.63	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	7.39
SLPWETE	2023 Q3	--	--	0.0023	--	4.08	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2.31
SLPWETE	2023 Q4	--	--	0.016	--	2.72	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	20.5
SLPWETE	2024 Q1	--	--	< 0.002 UJ	--	2.67	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	6.43
SLPWETE	2024 Q2	--	--	< 0.002 U	--	4.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	7.51
SLPWETE	2024 Q3	--	--	< 0.002 U	--	3.34	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	3.91
SLPWETE	2024 Q4	--	--	0.0028	--	3.78	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	8.08
SLPWETW	2006 Q2	0.2	< 0.01 U	--	< 0.01 U	2.392	--	--	--	--	--	--	--	--	--	--	--
SLPWETW	2006 Q3	0.053	< 0.01 U	--	< 0.01 U	3.028	--	--	--	--	--	--	--	--	--	--	--
SLPWETW	2006 Q4	0.108	0.011	--	< 0.01 U	1.178	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	28.28
SLPWETW	2007 Q2	0.069	< 0.01 U	--	< 0.01 U	1.627	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	13.11
SLPWETW	2007 Q3	0.026	< 0.01 U	--	< 0.01 U	2.384	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 5 U
SLPWETW	2007 Q4	0.055	0.066	--	< 0.005 U	1.63	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	32
SLPWETW	2008 Q2	0.089 R	0.12	--	< 0.01 U	2.626	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	30.5
SLPWETW	2008 Q3	0.01	< 0.005 U	--	< 0.01 U	0.8413	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 2 U
SLPWETW	2009 Q2	1.38	< 0.01 U	--	< 0.01 U	1.584	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 5 U
SLPWETW	2009 Q4	0.425	< 0.01 U	--	< 0.01 U	0.7971	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 5 U
SLPWETW	2010 Q2	--	< 0.01 U	--	< 0.01 U	0.7765 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3.3
SLPWETW	2010 Q3	0.128	< 0.01 U	--	< 0.01 U	0.7083	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2.7
SLPWETW	2011 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	1.14	--	--	--	< 0.0691 U	< 0.0691 U	< 0.0691 U	< 0.0691 U	--	--	--	1.4
SLPWETW	2011 Q3	0.88	< 0.01 U	--	< 0.01 U	4.39	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	145
SLPWETW	2011 Q4	1.62	< 0.01 U	--	< 0.01 UJ	3.5	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	47.8
SLPWETW	2013 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	0.93	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	7.2
SLPWETW	2013 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	1.09	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	29.8
SLPWETW	2014 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	1.35	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	1.99
SLPWETW	2014 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	1.04	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	3.3
SLPWETW	2015 Q3	0.19	< 0.01 U	--	< 0.01 U	4.71	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	44.1
SLPWETW	2015 Q4	< 0.1 U	0.017	--	< 0.01 U	6.07	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	158
SLPWETW	2019 Q2	4.46	< 0.005 U	--	< 0.01 UJ	4.09 J	--	--	--	< 0.065 U	< 0.065 U	0.072 P	0.015 JP	--	--	--	3.24
SLPWETW	2019 Q4	0.067 J	< 0.005 U	--	< 0.01 U	1.08	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	7
SLPWETW	2020 Q4	< 0.1 U	0.004 J	--	< 0.01 U	4.21	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	107 J
SLPWETW	2021 Q1	0.303	0.003 J	--	--	0.212 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1.54
SLPWETW	2021 Q2	0.0102	< 0.005 U	--	< 0.01 U	0.928	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1.39
SLPWETW	2021 Q3	0.0281	< 0.005 R	--	--	0.861	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3.12
SLPWETW	2021 Q4	0.00586 J	--	--	--	3.05	--	--	--	--	--	--	--	--	--	--	56.3
SLPWETW	2021 Q4	0.223	< 0.005 U	--	< 0.01 U	0.701	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	4.96
SLPWETW	2022 Q2	--	< 0.005 U	--	0.011 J	0.878	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	< 1 U
SLPWETW	2022 Q4	1.02	0.003 J	--	< 0.01 U	2.84	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	82.8

Table C-2
East Plant Landfill
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	**Quarter**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
East Plant Landfill																	
SLPWETW	2023 Q2	--	--	< 0.002 U	--	0.631	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	0.726 J
SLPWETW	2023 Q3	--	--	0.0025	--	1.11	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	4.76
SLPWETW	2023 Q4	--	--	< 0.006 U	--	0.603	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	22
SLPWETW	2024 Q1	--	--	0.00092 J	--	0.703	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	5.92
SLPWETW	2024 Q2	--	--	< 0.002 U	--	0.93	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	0.542 J
SLPWETW	2024 Q3	--	--	0.00093 J	--	0.942	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	0.498 J
SLPWETW	2024 Q4	--	--	0.0045	--	0.848	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1.03

Notes:
µg/L = micrograms per liter
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
mg/L = milligrams per liter
PCB = polychlorinated biphenyl
R = The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
U = The analyte was included in the analysis but was not detected above the reported quantitation limit, or the result is considered non-detect as a consequence of associated blank contamination.
UJ = The analyte was included in the analysis but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
WAD = weak acid dissociable
WDCN = weak dissociable cyanide

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-03S	1998 Q1	2.1	15	--	--	8.9	--	--	--	--	--	--	--	< 0.065 U	520
MW-03S	1998 Q2	2.1	6.9	--	--	8.4	--	--	--	--	--	--	--	< 0.065 U	470
MW-03S	1998 Q3	1.6	11	--	--	9.3	--	--	--	--	--	--	--	< 0.065 U	540
MW-03S	1998 Q4	2.2	16	--	--	12	--	--	--	--	--	--	--	< 0.065 U	480
MW-03S	1999 Q1	2.1	9.8	--	--	13	--	--	--	--	--	--	--	< 0.065 U	550
MW-03S	1999 Q2	3.3	14	--	--	11	--	--	--	--	--	--	--	< 0.065 U	450
MW-03S	1999 Q3	2.5	14	--	--	10	--	--	--	--	--	--	--	< 0.065 U	580
MW-03S	1999 Q4	3	14	--	--	14	--	--	--	--	--	--	--	< 0.065 U	490
MW-03S	2000 Q1	3.2	14	--	--	12	--	--	--	--	--	--	--	< 0.065 U	450
MW-03S	2000 Q2	2.7	5.3	--	--	12	--	--	--	--	--	--	--	< 0.065 U	530
MW-03S	2000 Q3	4.1	14	--	--	17	--	--	--	--	--	--	--	< 0.065 U	650
MW-03S	2000 Q4	0.2	12.4	--	0.104	12.63	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	446
MW-03S	2001 Q1	0.75	5.96	--	0.0735	13.1	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	637.41
MW-03S	2001 Q2	0.38	10	--	0.215	15.74	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	685.56
MW-03S	2001 Q3	4.1	8.37	--	0.221	15.54	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	714.78
MW-03S	2001 Q4	0.37	7.93	--	0.164	15.01	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	705.52
MW-03S	2002 Q1	0.19	12.1	--	0.465	14.5	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	679.18
MW-03S	2002 Q2	0.78	11.2	--	0.107	13.68	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	654.08
MW-03S	2002 Q3	0.5	10	--	0.21	15.3	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	2.171	--	688.44
MW-03S	2002 Q4	0.427	9.57	--	0.144	18.71	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	701.2
MW-03S	2003 Q1	15.65	10.3	--	0.119	17.98	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	654.285
MW-03S	2003 Q2	15.8	9.47	--	0.146	17.51	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	649.55
MW-03S	2003 Q3	0.658	9.41	--	0.726	20.25	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	649.96
MW-03S	2003 Q4	3.778	8.6	--	0.308	18.3	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	645.64
MW-03S	2004 Q1	36.61	8.94	--	0.081	16.67	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	647.7
MW-03S	2004 Q2	6.67	6.53	--	0.209	16.96	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	637
MW-03S	2004 Q3	3.097	7.74	--	0.363	22	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	621.98
MW-03S	2004 Q4	0.981	9.02	--	0.436	21.26	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	475.73
MW-03S	2005 Q1	13.34	8.06	--	0.193	23.2	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	595.66
MW-03S	2005 Q2	2.825	8.1	--	0.245	23.61	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	598.23
MW-03S	2005 Q3	5.58	7.52	--	0.229	20.68	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	614
MW-03S	2005 Q4	8.29	7.15	--	0.346	19.69	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	587.47
MW-03S	2006 Q1	3.906	6.98	--	0.18	20.06	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	591.92
MW-03S	2006 Q2	16.22	6.38	--	0.202	21.25	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	618.41
MW-03S	2006 Q3	9.16	5.96	--	0.138	24.39	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	505.51
MW-03S	2006 Q4	1.744	6.71	--	0.194	20.89	--	--	--	0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	422.86
MW-03S	2007 Q1	2.673	6.02	--	0.628	20.31	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	469.11
MW-03S	2007 Q2	9.786	5.57	--	0.309	22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	472.52
MW-03S	2007 Q3	1.932	5.7	--	0.306	20.16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	479.11
MW-03S	2007 Q4	15.09	5.4	--	0.063	22.58	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	470
MW-03S	2008 Q4	5.234	2.5 R	--	0.1	17.06	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	402
MW-03S	2009 Q1	6.08	0.746	--	0.243 J	17.5	--	--	--	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	--	363
MW-03S	2009 Q2	0.653 J	3.54	--	0.0906	17.13	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	342
MW-03S	2009 Q3	1.29	4.41	--	0.869	18.39	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	346
MW-03S	2009 Q4	3.205	3.69	--	0.135	17.51	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	387
MW-03S	2010 Q1	4.533	2.66 J	--	0.0961 J	21.9	--	--	--	< 0.065 U	0.065	< 0.065 U	< 0.065 U	--	375
MW-03S	2010 Q1	3.476	3.17 J	--	0.0712 J	18.68	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	382
MW-03S	2010 Q2	5.671	5.92	--	0.166	17.22 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	349
MW-03S	2010 Q3	2.054	3.79	--	0.029	15.97	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	260
MW-03S	2010 Q4	5.423	3.98	--	0.078	15.81	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	322
MW-03S	2011 Q3	39.4	2.96	--	0.037	14.7	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	< 0.051 U	--	283
MW-03S	2011 Q4	16.5	4.77	--	0.066 J	15	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	333
MW-03S	2012 Q1	31.6	3.83	--	0.103	13.6 J	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	325

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-03S	2012 Q3	21.8	3.59	--	0.024	15.1	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	341
MW-03S	2013 Q4	1.45	3.26	--	0.097	12	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	349
MW-03S	2014 Q2	21.8	1.87	--	0.129	8.6	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	260
MW-03S	2017 Q1	3.24	2.75	--	0.3	14.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	345
MW-03S	2017 Q2	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--
MW-03S	2018 Q2	10.8	0.998	--	--	32.1	--	--	--	< 0.065 U	< 0.065 U	0.065	0.017 J	--	218
MW-03S	2019 Q1	8.92	2.31	--	0.15	19.2	--	--	--	< 0.02 U	< 0.02 U	0.067	0.027	--	308
MW-03S	2019 Q2	0.84	0.484	--	0.05 J	16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	364
MW-03S	2019 Q4	1.28	1.62	--	0.026	15.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	275
MW-03S	2020 Q2	1.3	1.77	--	0.123	12.9	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	256
MW-03S	2020 Q4	2.92	0.63	--	0.037	10.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	313 J
MW-03S	2021 Q2	2.06	1.32	--	0.419	11.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	258
MW-03S	2021 Q4	0.411	0.635	--	0.022	15.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	64
MW-03S	2022 Q2	6.27	1.34	--	0.036	10.4	--	--	--	0.122	< 0.065 U	0.124 P	0.033	--	188
MW-03S	2022 Q4	2.48	0.403	--	< 0.01 U	10.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	212
MW-03S	2023 Q2	--	0.008	< 0.002 U	< 0.01 U	5.94	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	10.4
MW-03S	2023 Q4	--	--	< 0.006 U	--	8.77	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	59.8
MW-03S	2024 Q2	--	--	< 0.002 U	--	8.42	--	--	--	< 0.065 U	< 0.065 U	0.129	< 0.065 U	--	148
MW-03S	2024 Q4	--	--	0.005	--	9.53	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	186
MW-26S	1998 Q1	0.4	0.09	--	--	4.6	--	--	--	--	--	--	--	< 0.065 U	340
MW-26S	1998 Q2	0.24	0.1	--	--	3.6	--	--	--	--	--	--	--	< 0.065 U	330
MW-26S	1998 Q3	0.58	0.11	--	--	3	--	--	--	--	--	--	--	< 0.065 U	88
MW-26S	1998 Q4	1.2	0.09	--	--	4.8	--	--	--	--	--	--	--	< 0.065 U	300
MW-26S	1999 Q1	1.4	0.06	--	--	3.7	--	--	--	--	--	--	--	< 0.065 U	230
MW-26S	1999 Q2	0.85	0.04	--	--	2.7	--	--	--	--	--	--	--	< 0.065 U	260
MW-26S	1999 Q3	0.26	0.05	--	--	3.1	--	--	--	--	--	--	--	< 0.065 U	360
MW-26S	1999 Q4	0.37	0.05	--	--	4.1	--	--	--	--	--	--	--	< 0.065 U	360
MW-26S	2000 Q1	9.4545	0.05	--	--	4.3	--	--	--	--	--	--	--	< 0.065 U	278
MW-26S	2000 Q2	1.2	0.02	--	--	3.4	--	--	--	--	--	--	--	< 0.065 U	400
MW-26S	2000 Q3	0.44	0.02	--	--	3.3	--	--	--	--	--	--	--	< 0.065 U	380
MW-26S	2000 Q4	0.14	< 0.01 U	--	< 0.01 U	3.233	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.075	< 0.065 U	< 0.065 U	--	315
MW-26S	2001 Q1	0.9	< 0.01 U	--	< 0.01 U	3.04	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	350.6
MW-26S	2001 Q1	1.16	< 0.01 U	--	< 0.01 U	3.455	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.181	< 0.065 U	< 0.065 U	--	335.99
MW-26S	2001 Q2	0.12	< 0.01 U	--	< 0.01 U	3.202	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	446.68
MW-26S	2001 Q3	3.97	< 0.01 U	--	< 0.01 U	3.471	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	343.4
MW-26S	2001 Q4	0.16	< 0.01 U	--	< 0.01 U	3.246	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	347.1
MW-26S	2002 Q1	0.48	< 0.01 U	--	< 0.01 U	3.316	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	325.7
MW-26S	2002 Q2	0.39	< 0.01 U	--	< 0.01 U	2.859	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	350.6
MW-26S	2002 Q3	0.66	< 0.01 U	--	< 0.01 U	3.831	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.079	--	300.81
MW-26S	2002 Q3	0.7	< 0.01 U	--	< 0.01 U	3.551	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.435	--	295.66
MW-26S	2002 Q4	0.381	< 0.01 U	--	< 0.01 U	3.576	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	327.76
MW-26S	2003 Q1	2.24	< 0.01 U	--	< 0.01 U	3.067	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.103	< 0.065 U	< 0.065 U	--	280.026
MW-26S	2003 Q2	15.21	< 0.01 U	--	< 0.01 U	3.341	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	305.54
MW-26S	2003 Q3	11.1	< 0.01 U	--	< 0.01 U	3.546	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	294.02
MW-26S	2003 Q4	12.43	< 0.01 U	--	< 0.01 U	3.343	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	285.17
MW-26S	2004 Q1	12.8	< 0.01 U	--	< 0.01 U	3.659	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	245.05
MW-26S	2004 Q2	9.177	< 0.01 U	--	< 0.01 U	3.593	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	283.11
MW-26S	2004 Q3	3.029	< 0.01 U	--	< 0.01 U	4.291	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	256.16
MW-26S	2004 Q3	5.623	< 0.01 U	--	< 0.01 U	4.053	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	262.33
MW-26S	2004 Q4	11.28	< 0.01 U	--	< 0.01 U	4.573	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	342.31
MW-26S	2005 Q1	25.38	< 0.01 U	--	< 0.01 U	4.028	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	246.91
MW-26S	2005 Q2	8.025	< 0.01 U	--	< 0.01 U	4.337	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	283.69
MW-26S	2005 Q3	9.6	< 0.01 U	--	< 0.01 U	3.961	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	268.76

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	**Quarter**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
East Plant PSP															
MW-26S	2005 Q4	2.795	< 0.01 U	--	< 0.01 U	4.409	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	254.07
MW-26S	2006 Q1	6.488 J	< 0.01 U	--	< 0.01 U	4.091	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	249.86
MW-26S	2006 Q1	10.42 J	0.019	--	< 0.01 U	4.062	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	230.87
MW-26S	2006 Q2	9.571	< 0.01 U	--	< 0.01 U	4.637	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	211.37
MW-26S	2006 Q3	6.777	< 0.01 U	--	< 0.01 U	4.499	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	205.54
MW-26S	2006 Q4	1.573	< 0.01 U	--	< 0.01 U	4.317	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	207.54
MW-26S	2007 Q1	6.789	< 0.01 U	--	< 0.01 U	4.825	--	--	--	< 0.065 U	0.155	< 0.065 U	< 0.065 U	--	198.21
MW-26S	2007 Q2	26.42	< 0.01 U	--	< 0.01 U	4.285	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	230.34
MW-26S	2007 Q3	6.118	< 0.01 U	--	< 0.01 U	4.692	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	212
MW-26S	2007 Q4	7.833	0.037	--	< 0.005 U	4.309	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	220
MW-26S	2008 Q1	26.7	< 0.01 U	--	< 0.01 UJ	4.769	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	250
MW-26S	2008 Q1	21.1	< 0.01 U	--	< 0.01 UJ	5.238	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	260
MW-26S	2008 Q2	6.598 R	< 0.005 U	--	< 0.01 U	5.148	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	254
MW-26S	2008 Q3	19.85	< 0.005 U	--	< 0.01 U	4.778	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	250 J
MW-26S	2008 Q4	34.01	< 0.005 U	--	< 0.01 U	5.333	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	209
MW-26S	2009 Q1	32.6 J	< 0.005 UJ	--	< 0.006 U	4.85	--	--	--	< 0.168 U	< 0.168 U	< 0.238 U	< 0.238 U	--	228 J
MW-26S	2009 Q1	59.9 J	< 0.005 UJ	--	0.0075 J	5.45	--	--	--	< 0.176 U	< 0.176 U	< 0.25 U	< 0.25 U	--	206 J
MW-26S	2009 Q2	22.4	< 0.01 U	--	--	4.81	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	187
MW-26S	2009 Q3	33.2	< 0.01 U	--	< 0.01 U	5.176	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	212
MW-26S	2009 Q4	50.88	< 0.01 U	--	< 0.01 U	4.958	--	--	--	< 0.065 U	0.065	< 0.065 U	< 0.065 U	--	216
MW-26S	2010 Q1	48.01	< 0.01 UJ	--	< 0.01 UJ	4.126	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	242
MW-26S	2010 Q2	82.42	< 0.01 U	--	< 0.01 U	4.109 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	222
MW-26S	2010 Q3	10.71	< 0.01 U	--	< 0.01 U	5.635	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	209
MW-26S	2010 Q4	32.53	< 0.01 U	--	< 0.01 U	5.489	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	179
MW-26S	2011 Q1	52.6	< 0.01 U	--	< 0.01 U	5.45	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	195
MW-26S	2011 Q2	26.4	< 0.01 U	--	< 0.01 U	5.97	--	--	--	< 0.0663 U	< 0.0663 U	< 0.0663 U	< 0.0663 U	--	181
MW-26S	2011 Q3	25.9	< 0.01 U	--	< 0.01 U	5.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	167
MW-26S	2011 Q4	25.3	< 0.01 U	--	< 0.01 UJ	5.55	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	185
MW-26S	2012 Q1	29.9	< 0.01 U	--	< 0.01 U	4.62	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	187
MW-26S	2012 Q3	8.6	< 0.01 U	--	< 0.01 UJ	4.41	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	218
MW-26S	2012 Q4	34.3	< 0.01 U	--	< 0.01 U	4.37	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	231
MW-26S	2012 Q4	20.4	< 0.01 U	--	< 0.01 UJ	4.9	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	193
MW-26S	2013 Q2	18.6	< 0.01 U	--	< 0.01 U	5.48 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	230
MW-26S	2013 Q4	18	< 0.01 U	--	< 0.01 U	5.74	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	190
MW-26S	2014 Q2	49.3	< 0.01 U	--	< 0.01 U	4.81	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	208
MW-26S	2014 Q4	20.2	< 0.01 U	--	< 0.01 U	5.64	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	191
MW-26S	2015 Q3	15.5	< 0.01 U	--	< 0.01 U	5.68	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	195
MW-26S	2015 Q4	6.32	< 0.01 U	--	< 0.01 U	6.37	--	--	--	--	--	--	--	--	257
MW-26S	2016 Q2	1.28	0.003 J	--	0.003 J	6.87	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	202
MW-26S	2016 Q4	14.4	0.004 J	--	< 0.01 U	5.45	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	243
MW-26S	2017 Q2	3.59	0.001 J	--	< 0.01 U	6.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	170
MW-26S	2017 Q4	23.6	< 0.01 U	--	< 0.01 U	5.71	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	188
MW-26S	2018 Q2	11.9	< 0.005 U	--	--	5.76	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	171
MW-26S	2018 Q4	16.2	< 0.005 U	--	< 0.01 U	5.73	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	216
MW-26S	2019 Q2	16.5	< 0.005 U	--	< 0.01 UJ	6.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	162
MW-26S	2019 Q4	6.73	< 0.005 U	--	< 0.01 UJ	6.08	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	174
MW-26S	2020 Q2	0.636	< 0.005 U	--	< 0.01 U	5.74	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	132
MW-26S	2020 Q4	6.78	< 0.005 U	--	< 0.01 U	4.95	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	190 J
MW-26S	2021 Q2	23.1	< 0.005 U	--	< 0.01 U	5.26	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	186
MW-26S	2021 Q4	8.83	< 0.005 U	--	< 0.01 U	4.05	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	182
MW-26S	2022 Q2	6.62	< 0.005 U	--	< 0.01 U	4.64	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	136
MW-26S	2022 Q4	5.14	< 0.005 U	--	< 0.01 U	4.38	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	165
MW-26S	2023 Q2	--	--	< 0.002 U	--	5.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	166

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-26S	2023 Q4	--	--	< 0.006 U	--	5.61	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	182
MW-26S	2024 Q2	--	--	< 0.002 U	--	4.76	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	162 J
MW-26S	2024 Q4	--	--	< 0.002 U	--	4.33	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	165
MW-27S	1999 Q1	1.3	0.17	--	--	7.9	--	--	--	--	--	--	--	< 0.065 U	140
MW-27S	1999 Q2	0.96	0.14	--	--	6.7	--	--	--	--	--	--	--	< 0.065 U	290
MW-27S	1999 Q3	0.89	0.07	--	--	6.4	--	--	--	--	--	--	--	< 0.065 U	260
MW-27S	1999 Q4	0.67	0.07	--	--	8.5	--	--	--	--	--	--	--	< 0.065 U	250
MW-27S	2000 Q1	1.7	0.12	--	--	8.9	--	--	--	--	--	--	--	< 0.065 U	290
MW-27S	2000 Q2	3.3	0.11	--	--	7.1	--	--	--	--	--	--	--	< 0.065 U	280
MW-27S	2000 Q3	0.82	0.08	--	--	5.7	--	--	--	--	--	--	--	< 0.065 U	320
MW-27S	2000 Q4	0.1	0.0295	--	< 0.01 U	6.294	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	273
MW-27S	2001 Q1	0.66	0.0455	--	< 0.01 U	6.473	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	260.89
MW-27S	2001 Q2	0.54	0.048	--	< 0.01 U	5.597	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	292.99
MW-27S	2001 Q2	1.45	0.0535	--	< 0.01 U	6.636	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	288.26
MW-27S	2001 Q3	8.79	0.039	--	< 0.01 U	5.919	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	278.38
MW-27S	2001 Q4	0.3	0.0255	--	< 0.01 U	6.134	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	244.43
MW-27S	2002 Q1	0.19	0.0445	--	< 0.01 U	5.26	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	277.56
MW-27S	2002 Q2	0.39	0.0665	--	< 0.01 U	5.54	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	268.71
MW-27S	2002 Q3	0.21	0.0645	--	< 0.01 U	5.289	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	260.89
MW-27S	2002 Q4	0.142	0.037	--	< 0.01 U	6.232	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	292.58
MW-27S	2003 Q1	4.222	0.0385	--	< 0.01 U	5.171	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	280.643
MW-27S	2003 Q2	0.155	0.0495	--	< 0.01 U	5.009	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	292.99
MW-27S	2003 Q3	0.22	0.0645	--	0.0175	5.581	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	282.29
MW-27S	2003 Q4	12.35	0.0485	--	< 0.01 U	5.083	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	276.94
MW-27S	2004 Q1	5.402	0.0535	--	0.0135	4.521	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.066	< 0.065 U	< 0.065 U	--	286.61
MW-27S	2004 Q2	7.815	0.067	--	0.0175	4.927	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	283.11
MW-27S	2004 Q3	11.64	0.0445	--	0.049	4.895	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	274.68
MW-27S	2004 Q4	1.933	0.0315	--	< 0.01 U	5.274	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	256.01
MW-27S	2005 Q1	15.42	0.04	--	< 0.01 U	5.889	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	255.41
MW-27S	2005 Q2	6.588	0.043	--	0.0105	5.298	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	257.88
MW-27S	2005 Q3	4.442	0.03	--	0.0115	4.252	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	257.9
MW-27S	2005 Q4	2.219	0.016	--	< 0.01 U	4.49	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	261.28
MW-27S	2006 Q1	27.79	0.032	--	0.0115	3.834	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	283.51
MW-27S	2006 Q2	15.16	0.0355	--	0.0125	4.264	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	259.34
MW-27S	2006 Q3	1.817	0.026	--	0.012	3.827	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	257.47
MW-27S	2006 Q4	0.297	0.021	--	< 0.01 U	4.24	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	218.27
MW-27S	2007 Q1	6.057	0.027	--	0.011	3.92	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	236.77
MW-27S	2007 Q2	3.398	0.044 J	--	0.015	3.638	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	255.13
MW-27S	2007 Q3	2.968	0.05	--	0.0115	4.116	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	241.17
MW-27S	2007 Q4	3.622	0.04	--	< 0.005 U	3.579	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	260
MW-27S	2008 Q1	12.7	0.05	--	0.005	4.316	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	33 R
MW-27S	2008 Q1	10.9	0.045	--	< 0.01 U	4.185	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	248 J
MW-27S	2008 Q2	1.519	0.086	--	< 0.01 U	3.783	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	200
MW-27S	2008 Q3	8.138	0.023 R	--	< 0.01 U	3.898	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	248 J
MW-27S	2008 Q4	4.811	< 0.005 U	--	< 0.01 UJ	3.445	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	236 J
MW-27S	2009 Q1	6.17	0.0281	--	< 0.01 UJ	3.64	--	--	--	< 0.495 U	< 0.495 U	< 0.495 U	< 0.495 U	--	228
MW-27S	2009 Q2	1.01 J	0.0866	--	< 0.01 U	3.551	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	214
MW-27S	2009 Q3	8.9	0.0899	--	0.0108	3.738	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	235 J
MW-27S	2009 Q4	2.733	0.0419	--	< 0.01 U	3.344	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	237
MW-27S	2010 Q1	5.686	0.0405 J	--	< 0.01 UJ	3.048	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	250
MW-27S	2010 Q2	3.884	0.099	--	< 0.01 U	2.929 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	241
MW-27S	2010 Q3	3.476	0.073	--	< 0.01 U	3.468	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	248
MW-27S	2010 Q4	18.74	0.079	--	< 0.01 U	3.845	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	239

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-27S	2011 Q1	15.8	0.048	--	< 0.01 U	3.49	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	237
MW-27S	2011 Q2	2.93	0.043	--	< 0.01 U	3.66	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	227
MW-27S	2011 Q3	5.66	0.048	--	< 0.01 U	3.4	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	235
MW-27S	2011 Q4	7.09	0.036	--	< 0.01 UJ	3.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	248
MW-27S	2012 Q1	10.4	0.035	--	< 0.01 U	1.98 J	--	--	--	< 0.061 UJ	< 0.061 UJ	< 0.061 UJ	< 0.061 UJ	--	213
MW-27S	2012 Q3	3.47	0.044	--	< 0.01 U	2.79	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	256
MW-27S	2012 Q4	0.69	0.032	--	< 0.01 U	4.04	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	242
MW-27S	2012 Q4	7.95	0.031	--	< 0.01 UJ	2.86	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	247
MW-27S	2013 Q2	3.32	0.04	--	< 0.01 U	3.38 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	265
MW-27S	2013 Q4	13.5	0.028	--	< 0.01 U	2.97	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	257
MW-27S	2014 Q2	16.4	0.039	--	< 0.01 U	2.2	--	--	--	< 0.067 U	< 0.067 U	< 0.067 U	< 0.067 U	--	260
MW-27S	2014 Q4	15.1	0.02	--	< 0.01 U	3.17	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	247
MW-27S	2015 Q3	8.46 J	0.028	--	< 0.01 U	3.11	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	281
MW-27S	2015 Q3	4.91 J	0.027	--	< 0.01 U	3.37	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	283
MW-27S	2015 Q4	7.63	0.02	--	< 0.01 U	2.37	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	280
MW-27S	2016 Q2	1	0.025	--	0.006	3.93	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	276
MW-27S	2016 Q4	0.668	0.017	--	< 0.01 U	3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	250
MW-27S	2017 Q2	2.22	0.024	--	0.0062 J	2.54	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	257
MW-27S	2018 Q1	1.82	0.017	--	< 0.01 U	1.89	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	275
MW-27S	2018 Q2	1.04 J	0.014	--	< 0.01 U	2.82	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	303
MW-27S	2018 Q2	0.558 J	0.018	--	< 0.01 U	2.74	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	293
MW-27S	2019 Q1	1.5	0.009	--	< 0.01 U	2.95	--	--	--	< 0.019 U	< 0.019 U	< 0.02 U	< 0.02 U	--	270
MW-27S	2019 Q2	5.05 J	--	--	0.012 J	3.07 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	377
MW-27S	2019 Q2	3.14 J	--	--	0.012 J	3.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	407
MW-27S	2019 Q4	0.912	0.007	--	< 0.01 U	3.05	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	297
MW-27S	2020 Q2	0.539	0.023	--	< 0.01 U	2.96	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	289
MW-27S	2020 Q4	0.811	0.01	--	< 0.01 U	2.44	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	285
MW-27S	2021 Q2	4.56	0.016	--	< 0.01 U	3.18	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	312
MW-27S	2021 Q4	1.95	0.0156	--	< 0.01 U	0.132	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	278
MW-27S	2022 Q2	0.0462	0.009	--	< 0.01 U	< 0.05 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	255
MW-27S	2022 Q4	0.24	0.007	--	< 0.01 U	1.96	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	262
MW-27S	2023 Q2	--	--	< 0.002 U	--	2.32	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	287
MW-27S	2023 Q4	--	--	< 0.006 U	--	2.87	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	320
MW-27S	2024 Q2	--	--	< 0.002 U	--	2.67	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	336
MW-27S	2024 Q4	--	--	< 0.002 U	--	2.61	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	322
MW-28S	1999 Q1	7.4	18	--	--	170	--	--	--	--	--	--	--	< 0.065 U	630
MW-28S	1999 Q2	3.6	9.2	--	--	94	--	--	--	--	--	--	--	< 0.065 U	290
MW-28S	1999 Q3	3.1	14	--	--	84	--	--	--	--	--	--	--	< 0.065 U	440
MW-28S	1999 Q4	3.6	14	--	--	130	--	--	--	--	--	--	--	< 0.065 U	560
MW-28S	2000 Q1	21.715	3.1	--	--	109	--	--	--	--	--	--	--	< 0.065 U	652
MW-28S	2000 Q2	16	1.4	--	--	100	--	--	--	--	--	--	--	< 0.065 U	690
MW-28S	2000 Q3	12	5.9	--	--	100	--	--	--	--	--	--	--	< 0.065 U	530
MW-28S	2000 Q4	0.77	8.05	--	0.049	126.8	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	409
MW-28S	2001 Q1	3.51	8.83	--	0.042	120.9	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	482.28
MW-28S	2001 Q2	1.12	12.4	--	0.0295	90.7	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	435.98
MW-28S	2001 Q3	2.73	7.95	--	0.03	81.57	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	522.81
MW-28S	2001 Q4	0.64	17.2	--	0.025	84.2	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	575.28
MW-28S	2002 Q1	0.71	14.6	--	0.12	81.04	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	594.62
MW-28S	2002 Q2	1.18	8.77	--	0.197	77.03	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	485.16
MW-28S	2002 Q2	0.97	9.72	--	< 0.01 U	68.86	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	483.92
MW-28S	2002 Q3	0.3	8.12	--	0.032	67.74	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	452.86
MW-28S	2002 Q4	0.624	11.2	--	0.0195	78.91	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	455.32
MW-28S	2003 Q1	9.921	9.35	--	0.064	69.25	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	461.497

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	**Quarter**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**	**Result**
East Plant PSP															
MW-28S	2003 Q2	5.612	7.77	--	0.055	54.45	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.069	< 0.065 U	< 0.065 U	--	424.67
MW-28S	2003 Q2	10.56	6.53	--	0.042	55.12	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.151	< 0.065 U	< 0.065 U	--	417.88
MW-28S	2003 Q3	0.888	5.4	--	0.031	45.15	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	408.62
MW-28S	2003 Q4	8.216	8.02	--	0.0515	55.63	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	469.93
MW-28S	2004 Q1	6.177	7.85	--	0.035	46.04	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	489.69
MW-28S	2004 Q2	4.064	5.34	--	0.0405	52.37	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	386.4
MW-28S	2004 Q2	7.177	5.71	--	0.035	50.64	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	385.78
MW-28S	2004 Q3	14.74	4.19	--	0.025	41.34	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	381.46
MW-28S	2004 Q4	1.537	7.63	--	0.081	55.2	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	482.65
MW-28S	2005 Q1	13.61	6.76	--	0.032	61.21	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	455.66
MW-28S	2005 Q2	3.5	5.3	--	< 0.01 U	44.64	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	408.48
MW-28S	2005 Q2	7.137	2.72	--	< 0.01 U	52.99	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	404.24
MW-28S	2005 Q3	5.502	4.17	--	0.019	43.78	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	361.2
MW-28S	2005 Q4	3.193	5.5	--	0.0305	41.37	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	406.44
MW-28S	2006 Q1	6.013	2.16	--	0.0385	44.21	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	470.32
MW-28S	2006 Q2	1.645	4.9	--	0.034	36.05	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	317.31
MW-28S	2006 Q3	3.801	3.54	--	0.121	34.09	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	283.06
MW-28S	2006 Q4	1.439	4.01	--	0.0305	33.77	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	307.86
MW-28S	2007 Q1	1.411	4.03	--	0.0325	32.99	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	345.64
MW-28S	2007 Q2	7.876	3.32	--	0.042	31.46	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	312.71
MW-28S	2007 Q3	2.054	1.5	--	0.0185	19.23	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	265.82
MW-28S	2007 Q4	5.125	1.9	--	0.015	19.99	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	340
MW-28S	2008 Q1	4.5	2.68	--	0.011 J	25.87	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	340
MW-28S	2008 Q2	1.983	1.6	--	0.042	21.54	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	276
MW-28S	2008 Q3	2.282	1.2 R	--	0.02	16.34	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	281 J
MW-28S	2008 Q4	1.918	0.67	--	< 0.01 U	14.93	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	304
MW-28S	2009 Q1	4.61	1.35 R	--	0.0683	16.4	--	--	--	< 0.185 U	< 0.185 U	< 0.263 U	< 0.263 U	--	310
MW-28S	2009 Q2	14.1	1.5	--	--	15.35	--	--	--	< 0.065 U	0.1	0.067	< 0.065 U	--	271
MW-28S	2009 Q3	9.81	1.68 J	--	0.115 J	15.38	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	272
MW-28S	2009 Q4	0.647	1.58	--	0.146	16.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	293
MW-28S	2010 Q1	7.932	1.05 J	--	0.257 J	14.56	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	325
MW-28S	2010 Q2	4.664 J	4.08	--	0.055	16.32 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	271
MW-28S	2010 Q2	1.746 J	4.06	--	0.072	16.03 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	271
MW-28S	2010 Q3	4.588	4.76	--	0.035	19.12	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	258
MW-28S	2010 Q4	1.763	3.56	--	0.015	17.13	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	254
MW-28S	2011 Q1	2.92	3.27	--	0.039	16.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	256
MW-28S	2011 Q2	--	2.27	--	0.072 J	15.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	233
MW-28S	2011 Q2	1.05	2.44	--	0.038 J	16	--	--	--	< 0.0663 U	< 0.0663 U	< 0.0663 U	< 0.0663 U	--	237
MW-28S	2011 Q3	1.54	2.45	--	0.019	12.8	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	221
MW-28S	2011 Q4	2.73	3.25	--	0.013 J	15.5	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	239
MW-28S	2012 Q1	1.24	3.06	--	0.056	12.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	231
MW-28S	2012 Q3	2.17	2.06	--	0.074 J	12.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	206
MW-28S	2012 Q3	2.63	1.84	--	0.054 J	11.6	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	201
MW-28S	2012 Q4	2.32	1.12 J	--	0.177	12.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	216
MW-28S	2012 Q4	2.15	2.28 J	--	0.175	12.2	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	213
MW-28S	2012 Q4	2.69 J	2.18	--	0.098 J	12.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	250
MW-28S	2012 Q4	1.94 J	2.12	--	0.097 J	13.5	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	242
MW-28S	2013 Q2	11.5 J	1.79	--	0.024	11.4 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	249
MW-28S	2013 Q2	20.7 J	1.89	--	0.02	11.3 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	251
MW-28S	2013 Q4	18.9	2.23	--	0.018	10.9	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	287
MW-28S	2014 Q2	1.69	1.23	--	0.069	9.5	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	179
MW-28S	2014 Q4	23.1 J	2.05	--	0.01 UR	11.3	--	--	--	< 0.061 U	--	--	< 0.061 U	--	192
MW-28S	2014 Q4	10.1 J	2.17	--	--	9.93	--	--	--	< 0.061 U	0.061 UR	0.061 UR	< 0.061 U	--	197

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-28S	2015 Q3	10.8	1.98	--	0.049	10	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	209
MW-28S	2015 Q4	8.53	2.63	--	0.017	13.4	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	329
MW-28S	2016 Q2	1.88	3.09	--	0.13	14.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	323
MW-28S	2016 Q4	11.3	2.32	--	0.086	26.7	--	--	--	< 0.065 U	0.042	< 0.065 U	< 0.065 U	--	154
MW-28S	2017 Q2	2.67	3.47	--	1.3	13.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	207
MW-28S	2017 Q4	0.391	4.05	--	1.3	15.9	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	248
MW-28S	2018 Q2	< 0.1 U	2.22	--	0.16	15.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	212
MW-28S	2018 Q4	< 0.1 U	3.43	--	--	15.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	194
MW-28S	2018 Q4	< 0.1 U	4.1	--	--	16.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	194
MW-28S	2019 Q2	0.251	2.46	--	0.159 J	12.4	--	--	--	< 0.065 U	< 0.065 U	0.024	< 0.065 U	--	178
MW-28S	2019 Q4	0.036 J	3.22	--	0.018 J	16.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	189
MW-28S	2020 Q2	3.63	2.94	--	0.087	14.3	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	169
MW-28S	2020 Q4	0.448	2.34	--	0.029	15.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	160
MW-28S	2021 Q2	0.0118	1.88	--	0.148	12.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	182
MW-28S	2021 Q4	0.0095 J	2 R	--	0.062	13.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	169
MW-28S	2022 Q2	0.213	2.7	--	0.043	11.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	160
MW-28S	2022 Q4	0.0494	2.43	--	0.017	11.6	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	179
MW-28S	2023 Q2	--	--	0.0028	--	11.9	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	170
MW-28S	2023 Q4	--	--	0.02	--	13.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	197
MW-28S	2024 Q2	--	--	0.0072	--	9.86	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	168 J
MW-28S	2024 Q4	--	--	0.013	--	10.2 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	175 J
MW-33S	1995 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1996 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1996 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1996 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1996 Q4	--	0.018	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1997 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1997 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1997 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1997 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1998 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1998 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1998 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1999 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1999 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1999 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	1999 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2000 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2000 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2000 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2000 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2001 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2001 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2001 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2001 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2002 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2002 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2002 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2002 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2003 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2003 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2003 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2003 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-33S	2004 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2004 Q2	--	0.329	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2004 Q3	--	0.017	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2004 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2005 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2005 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2005 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2005 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2006 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2006 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2006 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2006 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2007 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2007 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2007 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2007 Q4	--	< 0.005 U	--	< 0.005 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2008 Q1	--	< 0.01 U	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-33S	2008 Q2	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2008 Q3	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2008 Q4	--	< 0.005 R	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2009 Q1	--	< 0.005 UJ	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2009 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2009 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2009 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2010 Q1	--	< 0.01 UJ	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-33S	2010 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2010 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2010 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2011 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2011 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2011 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2011 Q4	--	< 0.01 U	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-33S	2012 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2012 Q3	--	< 0.01 U	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-33S	2012 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2012 Q4	--	< 0.01 U	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-33S	2013 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2013 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2014 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2014 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2015 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2015 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2016 Q2	--	< 0.005 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2017 Q1	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2017 Q2	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2017 Q4	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2018 Q2	--	< 0.005 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2018 Q4	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2019 Q2	--	0.04	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-33S	2019 Q4	--	< 0.005 U	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-33S	2020 Q2	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2020 Q4	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2021 Q2	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-33S	2021 Q4	--	0.001 JR	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2022 Q2	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2022 Q4	--	< 0.005 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-33S	2023 Q2	--	--	< 0.002 UJ	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2023 Q4	--	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2024 Q2	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--
MW-33S	2024 Q4	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1995 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1996 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1996 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1996 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1996 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1997 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1997 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1997 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1997 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1998 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1998 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1998 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1999 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1999 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1999 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	1999 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2000 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2000 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2000 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2001 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2001 Q2	--	0.0095	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2001 Q3	--	0.011	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2001 Q4	--	0.0115	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2002 Q1	--	0.012	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2002 Q2	--	0.013	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2002 Q3	--	0.0155	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2002 Q4	--	0.016	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2003 Q1	--	0.019	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2003 Q2	--	0.019	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2003 Q3	--	0.0305	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2003 Q4	--	0.028	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2004 Q1	--	0.042	--	0.0125	--	--	--	--	--	--	--	--	--	--
MW-34S	2004 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2004 Q3	--	0.0355	--	0.016	--	--	--	--	--	--	--	--	--	--
MW-34S	2004 Q4	--	0.055	--	0.0185	--	--	--	--	--	--	--	--	--	--
MW-34S	2005 Q1	--	0.043	--	0.016	--	--	--	--	--	--	--	--	--	--
MW-34S	2005 Q2	--	0.0945	--	0.0175	--	--	--	--	--	--	--	--	--	--
MW-34S	2005 Q3	--	0.0445	--	0.021	--	--	--	--	--	--	--	--	--	--
MW-34S	2005 Q4	--	0.04	--	0.0165	--	--	--	--	--	--	--	--	--	--
MW-34S	2006 Q1	--	0.0645	--	0.0155	--	--	--	--	--	--	--	--	--	--
MW-34S	2006 Q2	--	0.063	--	0.0265	--	--	--	--	--	--	--	--	--	--
MW-34S	2006 Q3	--	0.0655	--	0.0255	--	--	--	--	--	--	--	--	--	--
MW-34S	2006 Q4	--	0.0815	--	0.0305	--	--	--	--	--	--	--	--	--	--
MW-34S	2007 Q1	--	0.0815	--	0.0325	--	--	--	--	--	--	--	--	--	--
MW-34S	2007 Q2	--	0.0825	--	0.0315	--	--	--	--	--	--	--	--	--	--
MW-34S	2007 Q3	--	0.042	--	0.0285	--	--	--	--	--	--	--	--	--	--

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-34S	2007 Q4	--	0.061	--	0.01	--	--	--	--	--	--	--	--	--	--
MW-34S	2008 Q1	--	0.07	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-34S	2008 Q2	--	0.072	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2008 Q3	--	0.063 R	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2008 Q4	--	0.047 R	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2009 Q1	--	0.0651	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-34S	2009 Q2	--	0.0526	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2009 Q3	--	0.0536	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2009 Q4	--	0.069	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2010 Q1	--	0.066 J	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-34S	2010 Q2	--	0.073	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2010 Q3	--	0.08	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2010 Q4	--	0.088	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2011 Q1	--	0.083	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2011 Q2	--	0.075	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2011 Q3	--	0.082	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2011 Q4	--	0.085	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-34S	2012 Q1	--	0.08	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2012 Q3	--	0.071	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-34S	2012 Q4	--	0.085	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2012 Q4	--	0.08	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-34S	2013 Q2	--	0.077	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2013 Q4	--	0.078	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2014 Q2	--	0.067	--	0.012	--	--	--	--	--	--	--	--	--	--
MW-34S	2014 Q4	--	0.071	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2015 Q3	--	0.075	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2015 Q4	--	0.074	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2016 Q2	--	0.048	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2017 Q1	--	0.052	--	0.0062 J	--	--	--	--	--	--	--	--	--	--
MW-34S	2017 Q2	--	0.063	--	0.0087 J	--	--	--	--	--	--	--	--	--	--
MW-34S	2018 Q1	--	0.046	--	0.0087 J	--	--	--	--	--	--	--	--	--	--
MW-34S	2018 Q2	--	0.068	--	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2018 Q4	--	0.015	--	0.011	--	--	--	--	--	--	--	--	--	--
MW-34S	2019 Q2	--	0.044	--	< 0.01 UJ	--	--	--	--	--	--	--	--	--	--
MW-34S	2019 Q4	--	0.03	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2020 Q2	--	0.073	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2020 Q4	--	0.053	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2021 Q2	--	0.063	--	0.012	--	--	--	--	--	--	--	--	--	--
MW-34S	2021 Q4	--	0.0907	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2022 Q2	--	0.069	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2022 Q4	--	0.036	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-34S	2023 Q2	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2023 Q4	--	--	< 0.006 U	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2024 Q2	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--
MW-34S	2024 Q4	--	--	< 0.002 U	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1995 Q4	--	0.015	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1996 Q1	--	0.79	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1996 Q2	--	0.11	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1996 Q3	--	0.12	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1996 Q4	--	0.37	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1997 Q1	--	1.4	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1997 Q2	--	1.3	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1997 Q3	--	0.09	--	--	--	--	--	--	--	--	--	--	--	--

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-35SR	1997 Q4	--	1	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1998 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1998 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1999 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1999 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1999 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	1999 Q4	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	2000 Q1	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	2000 Q2	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	2000 Q3	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	2000 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2001 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2001 Q2	--	< 0.01 U	--	0.0175	--	--	--	--	--	--	--	--	--	--
MW-35SR	2001 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2001 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2002 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2002 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2002 Q3	--	0.081	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2002 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2003 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2003 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2003 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2003 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2004 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2004 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2004 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2004 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2005 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2005 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2005 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2005 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2006 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2006 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2006 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2006 Q4	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2007 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2007 Q2	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2007 Q3	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2007 Q4	--	< 0.005 U	--	< 0.005 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2008 Q1	--	< 0.01 U	--	< 0.01 U	--	--	--	--	--	--	--	--	--	--
MW-35SR	2008 Q2	80.78	< 0.005 U	--	0.2 R	0.9971	--	--	--	< 0.065 U	0.254	< 0.065 U	< 0.065 U	--	464
MW-35SR	2008 Q3	145.1	< 0.005 U	--	< 0.01 U	1.147	--	--	--	< 0.065 R	0.123 J	< 0.065 R	< 0.065 R	--	516
MW-35SR	2008 Q4	107.1 R	0.066 R	--	< 0.01 U	0.6037	--	--	--	< 0.065 U	0.081 R	< 0.065 U	< 0.065 U	--	632
MW-35SR	2008 Q4	453.6 R	0.11 R	--	< 0.01 U	0.7607	--	--	--	< 0.065 U	0.39 R	< 0.065 U	< 0.065 U	--	632
MW-35SR	2009 Q1	127	< 0.005 R	--	< 0.006 U	0.2 J	--	--	--	< 0.173 U	0.196 J	< 0.245 U	< 0.245 U	--	521 J
MW-35SR	2009 Q2	3.51	< 0.01 U	--	< 0.01 U	0.7414	--	--	--	< 0.065 U	0.281	< 0.065 U	< 0.065 U	--	401
MW-35SR	2009 Q3	53.2	< 0.01 U	--	< 0.01 U	0.5046	--	--	--	< 0.065 U	0.121	0.082	< 0.065 U	--	554
MW-35SR	2009 Q4	32.33	< 0.01 U	--	< 0.01 U	0.5943	--	--	--	< 0.065 U	0.109	< 0.065 U	< 0.065 U	--	530
MW-35SR	2010 Q1	20.55	< 0.01 U	--	< 0.01 UJ	0.5731	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	523
MW-35SR	2010 Q2	15.18	< 0.01 U	--	< 0.01 U	0.3593 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	532
MW-35SR	2010 Q3	23.5	< 0.01 U	--	< 0.01 U	0.426	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	51.7
MW-35SR	2010 Q4	34.73	< 0.01 U	--	< 0.01 U	0.7604	--	--	--	< 0.065 U	0.085	0.094	< 0.065 U	--	502
MW-35SR	2011 Q1	5.39	< 0.01 U	--	< 0.01 U	0.72	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	538

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

		Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
		CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
		Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP																
MW-35SR	2011 Q2		67.2	< 0.01 U	--	< 0.01 U	0.63	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	497
MW-35SR	2011 Q3		38.8	< 0.01 U	--	< 0.01 U	0.43	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	538
MW-35SR	2011 Q4		68.4	< 0.01 U	--	< 0.01 UJ	0.51	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	529
MW-35SR	2012 Q1		53.9	< 0.01 U	--	< 0.01 U	0.57 J	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	560
MW-35SR	2012 Q1		46.5	< 0.01 U	--	< 0.01 U	0.62 J	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	557
MW-35SR	2012 Q3		71.6	< 0.01 U	--	< 0.01 U	0.42	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	596
MW-35SR	2012 Q4		122	< 0.01 U	--	< 0.01 U	0.4	--	--	--	< 0.061 U	< 0.061 U	0.56	0.079 U	--	541
MW-35SR	2012 Q4		16.8	< 0.01 U	--	< 0.01 UJ	0.63	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	551
MW-35SR	2012 Q4		17.1	< 0.01 U	--	< 0.01 UJ	0.63	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	539
MW-35SR	2013 Q2		51.1	< 0.01 U	--	< 0.01 U	0.99 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	453
MW-35SR	2013 Q4		49.9	< 0.01 U	--	< 0.01 U	1.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	426
MW-35SR	2014 Q2		89.2 J	< 0.01 U	--	< 0.01 U	0.95	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	450
MW-35SR	2014 Q2		43.4 J	< 0.01 U	--	< 0.01 U	0.91	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	456
MW-35SR	2014 Q4		54 J	< 0.01 U	--	< 0.01 U	0.59	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	556
MW-35SR	2014 Q4		35.3 J	< 0.01 U	--	< 0.01 U	0.6	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	561
MW-35SR	2015 Q3		14.6	< 0.01 U	--	< 0.01 U	0.52 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	701
MW-35SR	2015 Q4		17.6	< 0.01 U	--	< 0.01 U	0.73	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	682
MW-35SR	2016 Q2		10.2	< 0.005 U	--	--	0.644	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	604
MW-35SR	2017 Q1		15.4	0.002 J	--	< 0.01 U	0.926	--	--	--	< 0.065 U	0.126	0.049	< 0.065 U	--	463
MW-35SR	2017 Q1		12.2	0.001 J	--	< 0.01 U	0.907	--	--	--	< 0.065 U	0.125 P	< 0.065 U	< 0.065 U	--	467
MW-35SR	2017 Q2		11.7	< 0.005 U	--	< 0.01 U	2.56	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	487
MW-35SR	2018 Q1		12.6	< 0.005 U	--	< 0.01 U	1.05	--	--	--	< 0.065 U	< 0.065 U	0.066	< 0.065 U	--	487
MW-35SR	2018 Q2		4.71	0.004 J	--	< 0.01 U	1.16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	476
MW-35SR	2018 Q4		2.48	< 0.005 U	--	< 0.01 U	1.17	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	438
MW-35SR	2019 Q2		14.5	< 0.005 U	--	< 0.01 UJ	1.3	--	--	--	< 0.065 U	< 0.065 U	0.021	< 0.065 U	--	590
MW-35SR	2019 Q4		12.9	< 0.005 U	--	< 0.01 U	1.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	366 J
MW-35SR	2020 Q2		5.06	< 0.005 U	--	< 0.01 U	1.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	574
MW-35SR	2020 Q4		9.75	< 0.005 U	--	< 0.01 U	1.39	--	--	--	< 0.065 U	< 0.065 U	0.206	< 0.065 U	--	652
MW-35SR	2021 Q3		--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-35SR	2021 Q3		10	< 0.005 U	--	< 0.01 U	0.888	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	878
MW-35SR	2021 Q4		11.6	< 0.005 U	--	< 0.01 U	1.17	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	521
MW-35SR	2022 Q2		7.86	< 0.005 U	--	< 0.01 U	0.805	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	586
MW-35SR	2022 Q4		8.06	< 0.005 U	--	< 0.01 U	0.979	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	764
MW-35SR	2023 Q2		--	--	< 0.002 U	--	0.826	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	766
MW-35SR	2023 Q4		--	--	< 0.006 U	--	0.911	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	612
MW-35SR	2024 Q2		--	--	< 0.002 U	--	1.16 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	624
MW-35SR	2024 Q4		--	--	< 0.002 U	--	0.596	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	895
MW-42	2006 Q2		--	< 0.01 U	--	< 0.01 U	1.307	--	--	--	--	--	--	--	--	478.08
MW-42	2006 Q3		--	0.0105	--	< 0.01 U	1.441	--	--	--	--	--	--	--	--	471.71
MW-42	2006 Q4		31	< 0.01 U	--	< 0.01 U	1.537	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	411.61
MW-42	2007 Q1		72.52	< 0.01 U	--	0.042	9.951	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	545.61
MW-42	2007 Q2		42.43	0.119	--	0.044	11.21	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1060.01
MW-42	2007 Q3		92.93	0.41	--	0.0265	17.07	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	196.75
MW-42	2007 Q4		66.69	0.15	--	0.013	22.71	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1200
MW-42	2008 Q1		94.9	0.274	--	0.01 J	17.39	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1100
MW-42	2008 Q2		666.1	0.13	--	0.05 R	15.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	179
MW-42	2008 Q3		12.31	0.28 R	--	0.013	13.01	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	104
MW-42	2008 Q4		2.182	0.16	--	< 0.01 U	12.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	928
MW-42	2009 Q1		71.9 R	0.365 R	--	< 0.006 UJ	22 J	--	--	--	< 0.171 U	< 0.171 U	< 0.243 U	< 0.243 U	--	1190 J
MW-42	2009 Q1		13.3 R	0.21 R	--	0.0237 J	14 J	--	--	--	< 0.174 U	< 0.174 U	< 0.248 U	< 0.248 U	--	1030 J
MW-42	2009 Q2		10.4	0.158	--	0.0149	26.83	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	964
MW-42	2009 Q3		6.44	0.174	--	0.0156	12.14	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	956
MW-42	2009 Q4		28.78	0.174	--	0.0105	11.53	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1010

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-42	2010 Q1	9.97	0.21 J	--	< 0.01 UJ	26.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1420
MW-42	2010 Q2	2.503	0.152	--	< 0.01 U	10.4 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	994
MW-42	2010 Q3	16.18	0.298	--	0.011	15.47	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	66.5
MW-42	2010 Q4	331.1	0.363	--	< 0.01 U	23.84	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1220
MW-42	2011 Q1	7.09	0.244	--	< 0.01 U	15.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1140
MW-42	2011 Q2	2.49	0.183	--	0.013	14.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1060
MW-42	2011 Q3	75.9	0.374	--	0.012	21.5	< 0.053 U	< 0.053 U	< 0.053 U	< 0.053 U	< 0.053 U	< 0.053 U	< 0.053 U	--	1320
MW-42	2011 Q4	43.1	0.397	--	< 0.01 UJ	23.5	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	1360
MW-42	2011 Q4	53	0.393	--	< 0.01 UJ	26.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1410
MW-42	2012 Q1	22.7	0.393	--	< 0.01 U	26.7 J	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	1300
MW-42	2012 Q3	38.1	0.375	--	< 0.01 U	29.6	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	1400
MW-42	2012 Q4	2.54	0.206	--	< 0.01 U	15.2	--	--	--	< 0.061 U	< 0.061 U	0.13 U	< 0.061 U	--	1080
MW-42	2012 Q4	--	--	--	--	--	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--
MW-42	2012 Q4	88.4	0.366	--	< 0.01 UJ	28.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	1330
MW-42	2013 Q2	11	0.172	--	< 0.01 U	15.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	1230
MW-42	2013 Q4	120	0.229	--	< 0.01 U	16.9	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	1280
MW-42	2014 Q2	32.3	0.391	--	0.017	41.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	1890
MW-42	2014 Q4	43.2 J	< 0.01 U	--	< 0.01 U	2.18	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	397
MW-42	2015 Q3	41.8	0.366	--	0.012	39.9	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	1850
MW-42	2015 Q4	58.1	0.376	--	0.011	42.6	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	1910
MW-42	2016 Q2	54.6	0.319	--	0.006	38.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1450
MW-42	2017 Q1	37.8	0.308	--	0.027	45.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1460
MW-42	2017 Q2	33.8	0.295	--	0.019	44.9	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1400
MW-42	2018 Q1	34	0.278	--	0.23	45.1	--	--	--	< 0.065 U	< 0.065 U	0.029	< 0.065 U	--	1440
MW-42	2018 Q2	44.1	0.285	--	--	48.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1450
MW-42	2018 Q2	52.4	0.243	--	--	48.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1480
MW-42	2018 Q4	42.1	0.054	--	0.0095 J	12.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1140
MW-42	2019 Q2	34.3	0.083	--	< 0.01 UJ	12.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1200
MW-42	2019 Q4	28.1	0.21	--	< 0.01 U	35.5	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1330 J
MW-42	2020 Q2	12.7	0.158	--	< 0.01 U	38.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1290
MW-42	2020 Q4	47.6	0.172	--	< 0.01 U	27.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1190
MW-42	2021 Q3	70	0.147	--	< 0.01 U	19.7	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	1260
MW-42	2021 Q4	69.6	0.209	--	< 0.01 U	32.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1160
MW-42	2022 Q2	81.5	0.192	--	< 0.01 U	21.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1520
MW-42	2022 Q4	26.3	0.152	--	< 0.01 U	21	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1230
MW-42	2022 Q4	22.9	0.186	--	< 0.01 U	21.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1250
MW-42	2023 Q2	--	--	0.00085 J	--	39.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1140
MW-42	2023 Q4	--	--	< 0.006 UJ	--	25.5	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1170
MW-42	2024 Q2	--	--	0.00082 J	--	15.2 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1230
MW-42	2024 Q4	--	--	< 0.002 U	--	31.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	1070
MW-43	2006 Q2	--	< 0.01 U	--	< 0.01 U	0.2257	--	--	--	--	--	--	--	--	193.89
MW-43	2006 Q3	--	< 0.01 U	--	< 0.01 U	0.2417	--	--	--	--	--	--	--	--	214.36
MW-43	2006 Q4	2.011	< 0.01 U	--	< 0.01 U	0.4865	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	0.065 U	--	186.81
MW-43	2007 Q1	16.71	< 0.01 U	--	< 0.01 U	0.216	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	207.4
MW-43	2007 Q2	31.85	< 0.01 U	--	< 0.01 U	0.5412	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	165.1
MW-43	2007 Q3	18.48	< 0.01 U	--	< 0.01 U	0.2005	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	221.61
MW-43	2007 Q4	29.01	< 0.005 U	--	< 0.005 U	0.3448	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	180
MW-43	2008 Q1	20.9	0.01	--	< 0.01 UJ	0.307	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	195
MW-43	2008 Q2	50.98	< 0.005 U	--	< 0.01 R	0.406	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	162
MW-43	2008 Q3	30.02	< 0.005 U	--	< 0.01 U	0.3986	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	196
MW-43	2008 Q4	26.91	< 0.005 U	--	< 0.01 U	0.2297	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	222
MW-43	2009 Q1	37.9	< 0.005 UJ	--	< 0.006 U	0.09	--	--	--	< 0.173 U	< 0.173 U	< 0.246 U	< 0.246 U	--	206 J
MW-43	2009 Q2	46.1	< 0.01 U	--	--	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	181

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

		Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
		CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
		Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter		Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP																
MW-43	2009 Q3		31.8	0.059 J	--	< 0.01 U	0.2451	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	177
MW-43	2009 Q4		71.88	< 0.01 U	--	< 0.01 U	0.3549	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	182
MW-43	2010 Q1		32.96 J	< 0.01 UJ	--	< 0.01 UJ	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	213
MW-43	2010 Q2		52.39	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	166
MW-43	2010 Q3		60.07	< 0.01 U	--	< 0.01 U	0.2881	--	--	--	< 0.0657 U	< 0.0657 U	< 0.0657 U	< 0.0657 U	--	184
MW-43	2010 Q4		58.89	< 0.01 U	--	< 0.01 U	0.2043	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	161
MW-43	2011 Q1		84.9	< 0.01 U	--	< 0.01 U	0.24	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	171
MW-43	2011 Q2		29.4	< 0.01 U	--	< 0.01 U	0.2	--	--	--	< 0.0663 U	< 0.0663 U	< 0.0663 U	< 0.0663 U	--	178
MW-43	2011 Q3		34.7	< 0.01 U	--	< 0.01 U	0.21	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	168
MW-43	2011 Q4		17.6	< 0.01 U	--	< 0.01 UJ	0.23	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	171
MW-43	2012 Q1		40.1	< 0.01 U	--	< 0.01 U	0.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	142
MW-43	2012 Q1		30.2	< 0.01 U	--	< 0.01 U	0.24	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	143
MW-43	2012 Q3		20.8	< 0.01 U	--	< 0.01 UJ	0.22	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	184
MW-43	2012 Q4		43.6	< 0.01 U	--	< 0.01 U	0.19	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	149
MW-43	2012 Q4		28.5	< 0.01 U	--	< 0.01 UJ	0.22	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	165
MW-43	2013 Q2		44.3	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	175
MW-43	2013 Q4		23.6	< 0.01 U	--	< 0.01 U	0.2	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	163
MW-43	2014 Q2		90.4	< 0.01 U	--	< 0.01 U	0.24	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	143
MW-43	2014 Q4		18.1	< 0.01 U	--	< 0.01 U	0.22	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	150
MW-43	2015 Q3		16.5	< 0.01 U	--	< 0.01 U	0.24	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	151
MW-43	2015 Q4		92	< 0.01 U	--	< 0.01 U	0.26	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	166
MW-43	2016 Q2		16.7	< 0.005 U	--	--	0.191	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	170
MW-43	2017 Q1		10.1	< 0.005 U	--	< 0.01 U	0.204	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	132
MW-43	2017 Q2		13.7	0.002 J	--	< 0.01 U	0.901	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	164
MW-43	2018 Q1		8.42	< 0.005 U	--	< 0.01 U	0.265	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	138
MW-43	2018 Q2		22.2	< 0.005 U	--	--	0.19	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	154
MW-43	2018 Q4		21.6	< 0.005 U	--	0.0084 J	0.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	137
MW-43	2019 Q2		9.47	< 0.005 U	--	< 0.01 U	0.274	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	143
MW-43	2019 Q4		8.69	< 0.005 U	--	< 0.01 U	0.288	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	120 J
MW-43	2020 Q2		9.83	< 0.005 U	--	< 0.01 U	0.537	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	123
MW-43	2020 Q4		15.6	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	111
MW-43	2020 Q4		14.9	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	111
MW-43	2021 Q2		16.6	< 0.005 U	--	< 0.01 U	0.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	141
MW-43	2021 Q2		19.1	< 0.005 U	--	< 0.01 U	0.225	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	141
MW-43	2021 Q4		< 0.01 U	--	--	--	0.271	--	--	--	--	--	--	--	--	109
MW-43	2021 Q4		28.8	0.007 R	--	< 0.01 U	0.271	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	109
MW-43	2022 Q2		14.9	< 0.005 U	--	< 0.01 U	0.131	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	132
MW-43	2022 Q4		19.6	< 0.005 U	--	< 0.01 U	0.248	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	111
MW-43	2023 Q2		--	--	< 0.002 UJ	--	0.379	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	126
MW-43	2023 Q4		--	--	< 0.006 U	--	0.284	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	121
MW-43	2024 Q2		--	--	< 0.002 U	--	0.648 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	154
MW-43	2024 Q4		--	--	< 0.002 U	--	0.178	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	106
MW-44	2006 Q2		--	< 0.01 U	--	< 0.01 U	0.3933	--	--	--	--	--	--	--	--	158.8
MW-44	2006 Q3		--	< 0.01 U	--	< 0.01 U	0.2716	--	--	--	--	--	--	--	--	199.3
MW-44	2006 Q4		0.149	< 0.01 U	--	< 0.01 U	0.3082	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	143.15
MW-44	2007 Q1		0.487	< 0.01 U	--	< 0.01 U	0.2423	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	183.64
MW-44	2007 Q2		0.288	< 0.01 U	--	< 0.01 U	0.3368	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	148.85
MW-44	2007 Q3		0.307	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	197.82
MW-44	2007 Q4		0.157	< 0.005 U	--	< 0.005 U	0.2847	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	170
MW-44	2007 Q4		0.142	< 0.005 U	--	< 0.005 U	0.2813	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	170
MW-44	2008 Q1		0.156	< 0.01 U	--	< 0.01 UJ	0.2922	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	170
MW-44	2008 Q2		0.084	< 0.005 U	--	< 0.01 R	0.4385	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	165
MW-44	2008 Q3		0.035	< 0.005 U	--	< 0.01 U	0.348	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	186

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
MW-44	2008 Q4	0.061	< 0.005 U	--	< 0.01 U	0.2638	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	190
MW-44	2009 Q1	1.05	< 0.005 U	--	< 0.006 U	0.1	--	--	--	< 0.176 U	< 0.176 U	< 0.25 U	< 0.25 U	--	205 J
MW-44	2009 Q2	0.367	< 0.01 U	--	--	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	171
MW-44	2009 Q3	2.63	< 0.01 UJ	--	< 0.01 U	0.2697	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	181
MW-44	2009 Q4	0.182	0.0324	--	< 0.01 U	0.3021	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	177
MW-44	2010 Q1	2.908	< 0.01 UJ	--	< 0.01 UJ	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	195
MW-44	2010 Q2	--	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	154
MW-44	2010 Q3	1.262	< 0.01 U	--	< 0.01 U	0.2184	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	170
MW-44	2010 Q4	0.184	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	150
MW-44	2011 Q1	0.18	< 0.01 U	--	< 0.01 U	0.25	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	164
MW-44	2011 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	0.24	--	--	--	< 0.0663 U	< 0.0663 U	< 0.0663 U	< 0.0663 U	--	168
MW-44	2011 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	0.21	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	151
MW-44	2011 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	0.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	154
MW-44	2011 Q4	0.28	< 0.01 U	--	< 0.01 UJ	0.24	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	151
MW-44	2012 Q1	0.36	< 0.01 U	--	< 0.01 U	0.25 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	133
MW-44	2012 Q3	0.12	< 0.01 U	--	< 0.01 UJ	0.35	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	162
MW-44	2012 Q4	0.12	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	137
MW-44	2012 Q4	< 0.1 U	< 0.01 U	--	< 0.01 UJ	0.2	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	160
MW-44	2013 Q2	0.83	< 0.01 U	--	< 0.01 U	0.26	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	151
MW-44	2013 Q4	< 0.1 U	< 0.01 U	--	< 0.01 U	0.22	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	150
MW-44	2014 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	0.28	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	132
MW-44	2014 Q4	< 0.1 U	< 0.01 U	--	< 0.01 U	0.29	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	275
MW-44	2015 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	0.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	138
MW-44	2015 Q4	4.42	< 0.01 U	--	< 0.01 U	0.29	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	163
MW-44	2015 Q4	16.2	< 0.01 U	--	< 0.01 U	0.29	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	150
MW-44	2016 Q2	0.076 J	< 0.005 U	--	--	0.252	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	155
MW-44	2017 Q1	< 0.1 U	< 0.005 U	--	< 0.01 U	0.156	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	127
MW-44	2017 Q2	0.079 J	< 0.005 U	--	< 0.01 U	1.09	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	136
MW-44	2018 Q1	< 0.1 U	< 0.005 U	--	< 0.01 U	0.322	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	121
MW-44	2018 Q2	0.056 J	< 0.005 U	--	--	0.343	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	128
MW-44	2018 Q4	0.048 J	< 0.005 U	--	< 0.01 U	0.279	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	128
MW-44	2019 Q2	7.83	< 0.005 U	--	< 0.01 UJ	0.33 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	164
MW-44	2019 Q4	0.203	< 0.005 U	--	< 0.01 U	0.461	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	104 J
MW-44	2020 Q2	0.084 J	< 0.005 U	--	< 0.01 U	0.613	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	110
MW-44	2020 Q4	0.212	< 0.005 U	--	< 0.01 U	0.376 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	100
MW-44	2021 Q2	7.82	< 0.005 U	--	< 0.01 U	0.254	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	129
MW-44	2021 Q4	< 0.01 U	--	--	--	0.409	--	--	--	--	--	--	--	--	94.1
MW-44	2021 Q4	0.0291	< 0.005 U	--	< 0.01 U	0.421	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	85.6
MW-44	2022 Q2	--	< 0.005 U	--	< 0.01 U	0.249	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	116
MW-44	2022 Q2	--	< 0.005 U	--	< 0.01 U	0.236	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	111
MW-44	2022 Q4	0.0819	< 0.005 U	--	< 0.01 U	0.234	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	111
MW-44	2023 Q2	--	--	< 0.002 U	--	0.252	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	123
MW-44	2023 Q4	--	--	< 0.006 U	--	0.327	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	116
MW-44	2024 Q2	--	--	< 0.002 U	--	0.665	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	141 J
MW-44	2024 Q4	--	--	< 0.002 U	--	0.251 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	104 J
MW-56	2023 Q4	--	--	< 0.006 U	--	0.47	--	--	--	--	--	--	--	--	340
MW-56	2024 Q2	--	--	< 0.002 U	--	0.749	--	--	--	--	--	--	--	--	260
MW-56	2024 Q4	--	--	< 0.002 U	--	0.321	--	--	--	--	--	--	--	--	284
PZ-23	2006 Q2	--	26	--	0.552	--	--	--	--	--	--	--	--	--	--
PZ-24	2006 Q2	49.59 J	0.95	--	0.0125	71.17	--	--	--	--	--	--	--	--	104.54
PZ-25	2006 Q2	0.35 J	1.98 J	--	0.044 J	34.58 J	--	--	--	--	--	--	--	--	402.89 J
PZ-25	2006 Q2	23.36 J	1.1 J	--	0.0275 J	69.05 J	--	--	--	--	--	--	--	--	258.31 J
PZ-26	2006 Q2	16.94 J	0.0815	--	< 0.01 U	1.465	--	--	--	--	--	--	--	--	1305.49

Table C-3
East Plant PSP
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant PSP															
PZ-27	2006 Q2	--	0.015	--	< 0.01 U	38.12	--	--	--	--	--	--	--	--	--
PZ-28	2006 Q2	45.62 J	0.015	--	< 0.01 U	18.04	--	--	--	--	--	--	--	--	795.29
PZ-29	2006 Q2	22.02 J	11.3	--	0.31	49.85	--	--	--	--	--	--	--	--	405.85
PZ-30	2006 Q2	71.38 J	0.016	--	< 0.01 U	17.41	--	--	--	--	--	--	--	--	112.66
PZ-31	2006 Q2	18.88 J	0.039	--	0.0125	18.38	--	--	--	--	--	--	--	--	137

Notes:
µg/L = micrograms per liter
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
mg/L = milligrams per liter
PCB = polychlorinated biphenyl
PSP = Potliner Storage Pad
R = The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
U = The analyte was included in the analysis but was not detected above the reported quantitation limit, or the result is considered non-detect as a consequence of associated blank contamination.
UJ = The analyte was included in the analysis but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
WAD = weak acid dissociable
WDCN = weak dissociable cyanide

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
FDRAIN1	2006 Q2	--	2.09	--	0.052	34.89	--	--	--	--	--	--	--	--	--	--	510.06
FDRAIN1	2006 Q3	--	2.44	--	0.215	32.62	--	--	--	--	--	--	--	--	--	--	313.44
FDRAIN1	2006 Q4	--	1.16	--	0.0585	26.6	--	--	--	--	--	--	--	--	--	--	512.87
FDRAIN1	2007 Q1	--	1.13	--	0.0495	31.05	--	--	--	--	--	--	--	--	--	--	529.47
FDRAIN1	2007 Q2	--	1.04	--	0.026	26.83	--	--	--	--	--	--	--	--	--	--	941.48
FDRAIN1	2007 Q3	--	0.018	--	0.0775	31.32	--	--	--	--	--	--	--	--	--	--	227.2
FDRAIN1	2007 Q4	--	1.4	--	0.018	32.39	--	--	--	--	--	--	--	--	--	--	220
FDRAIN1	2008 Q1	--	1.61	--	0.015 J	24.92	--	--	--	--	--	--	--	--	--	--	310
FDRAIN1	2008 Q2	--	0.68 R	--	0.02 R	23.54	--	--	--	--	--	--	--	--	--	--	657
FDRAIN1	2008 Q3	--	0.66 R	--	0.042	--	--	--	--	--	--	--	--	--	--	--	--
FDRAIN1	2008 Q3	--	--	--	--	26.78	--	--	--	--	--	--	--	--	--	--	244
FDRAIN1	2008 Q4	--	0.72 R	--	0.011	29.4	--	--	--	--	--	--	--	--	--	--	302
FDRAIN1	2009 Q1	--	0.795 R	--	0.0393	23.9	--	--	--	--	--	--	--	--	--	--	67.9 J
FDRAIN1	2009 Q2	--	0.531	--	0.0347	20.33	--	--	--	--	--	--	--	--	--	--	38.6 R
FDRAIN1	2009 Q3	--	0.806 J	--	< 0.01 U	21.66	--	--	--	--	--	--	--	--	--	--	263
FDRAIN1	2009 Q4	--	0.607	--	0.031	27.8	--	--	--	--	--	--	--	--	--	--	207
FDRAIN1	2010 Q1	--	1.02 J	--	0.0722 J	21.31	--	--	--	--	--	--	--	--	--	--	231
FDRAIN1	2010 Q2	--	1.7	--	0.044	19.62 J	--	--	--	--	--	--	--	--	--	--	--
FDRAIN1	2010 Q3	--	2.42	--	0.014	38.11	--	--	--	--	--	--	--	--	--	--	259 J
FDRAIN1	2010 Q4	--	0.647	--	0.018	31.34	--	--	--	--	--	--	--	--	--	--	81.3
FDRAIN1	2011 Q1	--	1.12	--	0.055	19.1	--	--	--	--	--	--	--	--	--	--	217
FDRAIN1	2011 Q2	--	0.895	--	0.014	22.5	--	--	--	--	--	--	--	--	--	--	929
FDRAIN1	2011 Q3	--	2.19	--	0.087	19.9	--	--	--	--	--	--	--	--	--	--	516
FDRAIN1	2011 Q4	--	1.55	--	< 0.01 UJ	23	--	--	--	--	--	--	--	--	--	--	2180
FDRAIN1	2012 Q1	--	0.923	--	< 0.01 U	18.6 J	--	--	--	--	--	--	--	--	--	--	2060
FDRAIN1	2012 Q3	--	1.61	--	0.02	21.5	--	--	--	--	--	--	--	--	--	--	587
FDRAIN1	2012 Q4	--	1.38	--	0.018	17.6	--	--	--	--	--	--	--	--	--	--	764
FDRAIN1	2012 Q4	--	0.298	--	< 0.01 UJ	11.5	--	--	--	--	--	--	--	--	--	--	407
FDRAIN1	2013 Q2	--	0.17	--	< 0.01 U	20.5	--	--	--	--	--	--	--	--	--	--	2140
FDRAIN1	2013 Q4	--	0.559	--	0.011	32.8	--	--	--	--	--	--	--	--	--	--	695
FDRAIN1	2014 Q2	--	0.56	--	0.01	23.4	--	--	--	--	--	--	--	--	--	--	396
FDRAIN1	2014 Q4	--	0.877	--	< 0.01 U	18.2	--	--	--	--	--	--	--	--	--	--	275
FDRAIN1	2015 Q3	--	0.466	--	< 0.01 U	28.6	--	--	--	--	--	--	--	--	--	--	201
FDRAIN1	2015 Q4	--	0.729	--	0.011	26	--	--	--	--	--	--	--	--	--	--	343
FDRAIN1	2016 Q2	--	0.761	--	--	26.1	--	--	--	--	--	--	--	--	--	--	228
FDRAIN1	2017 Q1	--	0.248	--	0.029	19.5	--	--	--	--	--	--	--	--	--	--	292
FDRAIN1	2017 Q2	--	0.402	--	0.01	19.4	--	--	--	--	--	--	--	--	--	--	113
FDRAIN1	2018 Q1	--	0.338	--	0.055	22.4	--	--	--	--	--	--	--	--	--	--	186
FDRAIN1	2018 Q2	--	0.325	--	0.039	19.8	--	--	--	--	--	--	--	--	--	--	125
FDRAIN1	2018 Q4	--	0.346	--	0.089	20.6	--	--	--	--	--	--	--	--	--	--	202
FDRAIN1	2019 Q2	--	< 0.005 U	--	0.013 J	18.8 J	--	--	--	--	--	--	--	--	--	--	223
FDRAIN1	2019 Q4	--	1.44	--	0.021	23.1	--	--	--	--	--	--	--	--	--	--	213
FDRAIN1	2020 Q2	--	1.63	--	0.153	21.3	--	--	--	--	--	--	--	--	--	--	205
FDRAIN1	2020 Q4	--	0.308	--	0.011	16.5	--	--	--	--	--	--	--	--	--	--	254
FDRAIN1	2021 Q2	--	0.779	--	0.261	20	--	--	--	--	--	--	--	--	--	--	--
FDRAIN1	2021 Q4	--	1.18	--	0.026	19.4	--	--	--	--	--	--	--	--	--	--	--
FDRAIN1	2022 Q2	--	0.998	--	0.021	17.3	--	--	--	--	--	--	--	--	--	--	142
FDRAIN1	2022 Q4	--	0.772	--	0.014	20.6	--	--	--	--	--	--	--	--	--	--	138
FDRAIN1	2023 Q2	--	--	0.0014 J	--	19.5	--	--	--	--	--	--	--	--	--	--	180
FDRAIN1	2023 Q4	--	--	< 0.006 U	--	21.2	--	--	--	--	--	--	--	--	--	--	165
FDRAIN1	2024 Q2	--	--	0.0012 J	--	19.4	--	--	--	--	--	--	--	--	--	--	--

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
FDRAIN1	2024 Q4	--	--	< 0.002 UJ	--	23.2	--	--	--	--	--	--	--	--	--	--	156
MW-16S	1999 Q1	7.8	0.35	--	--	640	--	--	--	--	--	--	--	--	--	1.6	3600
MW-16S	1999 Q2	1.3	0.23	--	--	190	--	--	--	--	--	--	--	--	--	0.19	220
MW-16S	1999 Q3	0.2	0.04	--	--	15	--	--	--	--	--	--	--	--	--	< 0.065 U	480
MW-16S	1999 Q4	0.46	0.03	--	--	16	--	--	--	--	--	--	--	--	--	< 0.065 U	350
MW-16S	2000 Q1	0.24	0.03	--	--	15	--	--	--	--	--	--	--	--	--	< 0.065 U	280
MW-16S	2000 Q2	0.28	0.04	--	--	13	--	--	--	--	--	--	--	--	--	< 0.065 U	2000
MW-16S	2000 Q3	0.2	0.04	--	--	22	--	--	--	--	--	--	--	--	--	< 0.065 U	1800
MW-16S	2000 Q4	0.13	0.0495	--	< 0.01 U	29.37	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1250
MW-16S	2001 Q1	0.15	0.129	--	< 0.01 U	36.87	< 0.065 U	< 0.065 U	< 0.065 U	0.416	< 0.065 U	< 0.065 U	0.067	--	--	--	1155.9
MW-16S	2001 Q2	0.1	0.0805	--	< 0.01 U	40	< 0.065 U	< 0.065 U	< 0.065 U	0.217	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1116.4
MW-16S	2001 Q3	0.11	0.028	--	< 0.01 U	30.69	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	793.37
MW-16S	2001 Q4	0.32	0.0175	--	< 0.01 U	28.49	< 0.065 U	< 0.065 U	< 0.065 U	0.577	< 0.065 U	< 0.065 U	0.142	--	--	--	604.7
MW-16S	2002 Q1	0.13	0.0155	--	< 0.01 U	27.29	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.181	< 0.065 U	0.096	--	--	--	628.36
MW-16S	2002 Q2	0.11	0.141	--	< 0.01 U	21.79	< 0.065 U	< 0.065 U	< 0.065 U	0.209	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	931.43
MW-16S	2002 Q3	0.11	0.0145	--	< 0.01 U	12.75	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	829.38
MW-16S	2002 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	12.36	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	861.48
MW-16S	2003 Q1	< 0.011 U	0.01	--	< 0.01 U	11.07	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	728.355
MW-16S	2003 Q2	< 0.01 U	< 0.01 U	--	< 0.01 U	10.44	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	760.25
MW-16S	2003 Q3	0.053	< 0.01 U	--	< 0.01 U	11.74	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	567.25
MW-16S	2003 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	11.67	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	556.14
MW-16S	2004 Q1	0.041	< 0.01 U	--	< 0.01 U	10.4	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	526.31
MW-16S	2004 Q2	< 0.01 U	0.012	--	< 0.01 U	1.144	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	475.28
MW-16S	2004 Q3	< 0.003 U	< 0.01 U	--	< 0.01 U	8.98	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	428.78
MW-16S	2004 Q4	< 0.003 U	< 0.01 U	--	< 0.01 U	12.14	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	419.67
MW-16S	2005 Q1	0.046	0.018	--	< 0.01 U	9.961	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	360.99
MW-16S	2005 Q2	0.107	< 0.01 U	--	< 0.01 U	10.15	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	357
MW-16S	2005 Q3	0.124	< 0.01 U	--	< 0.01 U	8.841	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	346.16
MW-16S	2005 Q4	0.097	< 0.01 U	--	< 0.01 U	8.831	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	298.55
MW-16S	2006 Q1	0.115	0.027	--	< 0.01 U	9.992	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	359.14
MW-16S	2006 Q2	0.05	< 0.01 U	--	0.011	7.302	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	304.28
MW-16S	2006 Q3	0.032	< 0.01 U	--	< 0.01 U	8.485	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	318.79
MW-16S	2006 Q4	0.041	< 0.01 U	--	< 0.01 U	9.503	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	246.73
MW-16S	2007 Q1	0.075	< 0.01 U	--	< 0.01 U	9.448	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	304.7
MW-16S	2007 Q2	0.122	< 0.01 U	--	< 0.01 U	8.08	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	299.4
MW-16S	2007 Q3	0.102	< 0.01 U	--	< 0.01 U	9.903	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	308.79
MW-16S	2007 Q4	0.052	0.005	--	< 0.005 U	8.615	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	320
MW-16S	2008 Q1	0.171	0.012	--	< 0.01 UJ	8.993	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	290
MW-16S	2008 Q2	0.18	< 0.005 U	--	0.11 R	7.597	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	338
MW-16S	2008 Q3	0.069	< 0.005 U	--	< 0.01 U	8.047	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	272
MW-16S	2008 Q4	0.139	0.011	--	< 0.01 U	7.828	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	267
MW-16S	2009 Q1	0.2 U	< 0.005 R	--	< 0.006 U	8.25	--	--	--	< 0.173 U	< 0.173 U	< 0.245 U	< 0.245 U	--	--	--	290 J
MW-16S	2009 Q2	0.202	< 0.01 U	--	--	6.306	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	229
MW-16S	2009 Q3	0.34	< 0.01 U	--	< 0.01 U	7.098	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	257
MW-16S	2009 Q4	0.048	< 0.01 U	--	< 0.01 U	7.84	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	278
MW-16S	2010 Q1	0.42	< 0.01 UJ	--	< 0.01 UJ	6.596	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	312
MW-16S	2010 Q2	--	< 0.01 U	--	< 0.01 U	6.939 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	269
MW-16S	2010 Q3	0.083	< 0.01 UJ	--	< 0.01 UJ	8.235	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	289 J
MW-16S	2010 Q4	0.04	< 0.01 U	--	< 0.01 U	8.154	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	257
MW-16S	2011 Q1	< 0.1 U	< 0.01 U	--	< 0.01 U	7.22	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	292
MW-16S	2011 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	9.88	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	190

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-16S	2011 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	7.95	--	--	--	< 0.08 U	< 0.08 U	< 0.08 U	< 0.08 U	--	--	--	136
MW-16S	2011 Q4	< 0.1 U	< 0.01 U	--	< 0.01 UJ	9.09	--	--	--	< 0.062 U	< 0.062 U	< 0.062 U	< 0.062 U	--	--	--	136
MW-16S	2012 Q1	< 0.1 U	< 0.01 U	--	< 0.01 U	8.09	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	154
MW-16S	2012 Q3	0.11	< 0.01 U	--	< 0.01 UJ	7.92	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	203
MW-16S	2012 Q4	< 0.1 U	0.01	--	< 0.01 U	7.95	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	198
MW-16S	2012 Q4	0.11	0.038	--	< 0.01 UJ	10.2	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	223
MW-16S	2013 Q2	< 0.1 U	0.016	--	< 0.01 U	10.4	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	227
MW-16S	2013 Q4	0.78	< 0.01 U	--	< 0.01 U	7.21	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	261
MW-16S	2014 Q2	< 0.1 U	< 0.01 U	--	< 0.01 U	7.74	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	268
MW-16S	2014 Q4	0.6	< 0.01 U	--	< 0.01 U	7.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	255
MW-16S	2015 Q3	< 0.1 U	< 0.01 U	--	< 0.01 U	7.99	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	280
MW-16S	2015 Q4	< 0.1 U	< 0.01 U	--	< 0.01 U	8.79	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	281
MW-16S	2016 Q2	0.072 J	0.007	--	--	9.61	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	292
MW-16S	2016 Q4	0.047 J	0.076	--	< 0.01 U	7.66	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	220
MW-16S	2017 Q2	0.055 J	0.004 J	--	< 0.01 U	8.5	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	217
MW-16S	2017 Q4	< 0.1 UJ	< 0.005 U	--	< 0.01 U	8.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	236
MW-16S	2018 Q2	0.032 J	< 0.005 U	--	< 0.01 U	7.38	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	226
MW-16S	2018 Q4	< 0.1 U	0.003 J	--	< 0.01 U	9.37	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	211
MW-16S	2019 Q2	0.066 J	0.002 J	--	< 0.01 U	6.81	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	188
MW-16S	2019 Q4	< 0.1 U	0.002 J	--	< 0.01 UJ	11.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	208
MW-16S	2020 Q2	< 0.1 U	0.004 J	--	< 0.01 U	7.42	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	200
MW-16S	2020 Q4	0.052 J	0.002 J	--	< 0.01 U	7.92	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	171
MW-16S	2021 Q2	0.0798	0.002 J	--	< 0.01 U	7.97	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-16S	2021 Q4	0.00422 J	0.068 R	--	< 0.01 U	6.92	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-16S	2022 Q2	0.0114	0.009	--	< 0.01 U	7.03	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	190
MW-16S	2022 Q4	0.054	< 0.005 U	--	< 0.01 U	7.16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	246
MW-16S	2023 Q2	--	--	< 0.002 U	--	7.88	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	211
MW-16S	2023 Q4	--	--	--	--	8.47	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	233
MW-16S	2024 Q2	--	--	< 0.002 U	--	7.33	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	252
MW-16S	2024 Q4	--	--	< 0.002 U	--	6.93 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	256 J
MW-17S	1999 Q1	0.61	< 0.01 U	--	--	1.4	--	--	--	--	--	--	--	--	--	< 0.065 U	430
MW-17S	1999 Q2	0.49	0.03	--	--	1	--	--	--	--	--	--	--	--	--	< 0.065 U	380
MW-17S	1999 Q3	0.56	< 0.01 U	--	--	0.9	--	--	--	--	--	--	--	--	--	< 0.065 U	670
MW-17S	1999 Q4	0.52	< 0.01 U	--	--	2.5	--	--	--	--	--	--	--	--	--	< 0.065 U	620
MW-17S	2000 Q1	0.34	0.03	--	--	1.8	--	--	--	--	--	--	--	--	--	< 0.065 U	410
MW-17S	2000 Q2	0.86	0.02	--	--	1.1	--	--	--	--	--	--	--	--	--	< 0.065 U	560
MW-17S	2000 Q3	0.2	< 0.01 U	--	--	1.1	--	--	--	--	--	--	--	--	--	0.18	480
MW-17S	2000 Q4	0.18	< 0.01 U	--	< 0.01 U	1.162	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	304
MW-17S	2001 Q1	0.82	< 0.01 U	--	< 0.01 U	1.359	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	406.77
MW-17S	2001 Q2	0.1	0.0095	--	< 0.01 U	0.933	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	405.33
MW-17S	2001 Q3	0.41	< 0.01 U	--	< 0.01 U	0.952	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	298.75
MW-17S	2001 Q4	0.14	< 0.01 U	--	< 0.01 U	2.391	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	246.28
MW-17S	2002 Q1	0.12	< 0.01 U	--	< 0.01 U	1.267	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	503.06
MW-17S	2002 Q2	0.12	< 0.01 U	--	< 0.01 U	0.988	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	487.01
MW-17S	2002 Q3	< 0.01 U	< 0.01 U	--	< 0.01 U	1.496	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	317.68
MW-17S	2002 Q4	0.838	< 0.01 U	--	< 0.01 U	2.349	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	310.48
MW-17S	2003 Q1	0.74	< 0.01 U	--	< 0.01 U	1.15	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	601.407
MW-17S	2003 Q2	0.085	< 0.01 U	--	< 0.01 U	1.054	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	621.78
MW-17S	2003 Q3	0.083	< 0.01 U	--	< 0.01 U	0.931	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	434.13
MW-17S	2003 Q4	0.453	< 0.01 U	--	< 0.01 U	1.02	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	314.39
MW-17S	2004 Q1	1.131	< 0.01 U	--	< 0.01 U	1.114	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	470.14

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-17S	2004 Q2	2.974	< 0.01 U	--	< 0.01 U	0.791	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	356.36
MW-17S	2004 Q3	2.589	< 0.01 U	--	< 0.01 U	0.744	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	338.05
MW-17S	2004 Q4	1.408	< 0.01 U	--	< 0.01 U	1.278	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	272.22
MW-17S	2005 Q1	3.927	< 0.01 U	--	< 0.01 U	1.097	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	279.22
MW-17S	2005 Q2	2.527	< 0.01 U	--	< 0.01 U	0.7517	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	281.5
MW-17S	2005 Q3	3.142	< 0.01 U	--	< 0.01 U	1.014	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	277.7
MW-17S	2005 Q4	2.057	< 0.01 U	--	< 0.01 U	1.837	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	215.05
MW-17S	2006 Q1	20.84	< 0.01 U	--	< 0.01 U	0.8417	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	216.88
MW-17S	2006 Q2	15.01	< 0.01 U	--	< 0.01 U	0.7225	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	215.11
MW-17S	2006 Q3	10.85	< 0.01 U	--	< 0.01 U	0.6616	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	200.16
MW-17S	2006 Q4	7.305	< 0.01 U	--	< 0.01 U	< 0.2 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	144.98
MW-17S	2007 Q1	7.112	0.0145	--	< 0.01 U	0.7146	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	152.75
MW-17S	2007 Q2	6.852	< 0.01 U	--	< 0.01 U	0.6408	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	167.9
MW-17S	2007 Q3	3.015	< 0.01 U	--	< 0.01 U	0.8034	--	--	--	< 0.065 U	0.471	0.131	< 0.065 U	--	--	--	168.67
MW-17S	2007 Q3	--	--	--	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-17S	2007 Q4	4.661	< 0.005 U	--	< 0.005 U	1.81	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	150
MW-17S	2008 Q1	3.88	< 0.01 U	--	< 0.01 UJ	0.8118	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	198
MW-17S	2008 Q2	6.569	< 0.005 U	--	< 0.01 UJ	0.7293	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	167 J
MW-17S	2008 Q3	11.89	< 0.005 U	--	< 0.01 U	0.7726	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	151
MW-17S	2008 Q4	1.901	< 0.005 U	--	< 0.01 U	0.6294	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	171
MW-17S	2009 Q1	1.88	< 0.005 UJ	--	< 0.006 U	0.5	--	--	--	< 0.18 U	< 0.18 U	< 0.255 U	< 0.255 U	--	--	--	169 J
MW-17S	2009 Q2	0.405 J	< 0.01 U	--	< 0.01 U	0.5536	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	131
MW-17S	2009 Q3	2.76	< 0.01 U	--	< 0.01 U	0.5872	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	128
MW-17S	2009 Q4	1.424	< 0.01 U	--	< 0.01 U	0.6341	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	151
MW-17S	2010 Q1	3.745	< 0.01 U	--	< 0.01 UJ	0.7306	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	133
MW-17S	2010 Q2	7.285	< 0.01 U	--	< 0.01 U	0.4851 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	102
MW-17S	2010 Q3	2.558	< 0.01 U	--	< 0.01 U	0.63	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	112
MW-17S	2010 Q4	11.92	< 0.01 U	--	< 0.01 U	0.5836	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	105
MW-17S	2011 Q1	1.88	< 0.01 U	--	< 0.01 U	0.95	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	81.6
MW-17S	2011 Q2	1.75	< 0.01 U	--	< 0.01 U	0.65	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	98.7
MW-17S	2011 Q3	2.18	< 0.01 U	--	< 0.01 U	0.45	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	145
MW-17S	2011 Q4	4.4	< 0.01 U	--	< 0.01 UJ	0.76	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	146
MW-17S	2012 Q1	4.57	< 0.01 U	--	< 0.01 U	0.78 J	--	--	--	< 0.063 UJ	< 0.063 UJ	< 0.063 UJ	< 0.063 UJ	--	--	--	123
MW-17S	2012 Q3	1.69	< 0.01 UJ	--	< 0.01 U	0.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	651
MW-17S	2012 Q4	2.05	< 0.01 U	--	< 0.01 U	0.25	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	165
MW-17S	2012 Q4	1.05	< 0.01 U	--	< 0.01 UJ	1	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	145
MW-17S	2013 Q2	1.33	< 0.01 U	--	< 0.01 U	0.67	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	157
MW-17S	2013 Q4	2.38	< 0.01 U	--	< 0.01 U	0.67	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	144
MW-17S	2014 Q2	2.12	< 0.01 U	--	< 0.01 U	0.59	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	133
MW-17S	2014 Q4	2.21	< 0.01 U	--	< 0.01 U	0.61	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	145
MW-17S	2015 Q3	0.78	< 0.01 U	--	< 0.01 U	0.9 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	117
MW-17S	2015 Q4	0.71	< 0.01 U	--	< 0.01 U	1.01	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	125
MW-17S	2016 Q2	0.663	0.001 J	--	--	0.708	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	89.7
MW-17S	2016 Q4	0.736	< 0.005 U	--	< 0.01 U	1.37	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	111
MW-17S	2017 Q2	0.491	0.003 J	--	< 0.01 U	1.04	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	116
MW-17S	2018 Q1	0.387	< 0.005 U	--	< 0.01 U	1.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88.8
MW-17S	2018 Q2	0.342	< 0.005 U	--	0.0068 J	0.806	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	106
MW-17S	2019 Q2	1.13	< 0.005 U	--	< 0.01 UJ	0.806 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	107
MW-17S	2019 Q4	0.032 J	< 0.005 U	--	< 0.01 U	0.919	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	130
MW-17S	2020 Q2	< 0.1 U	< 0.005 U	--	< 0.01 U	1.05	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	103
MW-17S	2020 Q4	< 0.1 U	< 0.005 U	--	< 0.01 U	0.886	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	159

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-17S	2021 Q3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17S	2021 Q3	0.0263	< 0.005 U	--	< 0.01 U	0.913	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-17S	2021 Q4	0.0469	< 0.005 U	--	< 0.01 U	1.03	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-17S	2022 Q2	0.0477	< 0.005 U	--	< 0.01 U	0.84	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	100
MW-17S	2022 Q4	0.0333	0.002 J	--	< 0.01 U	1.01	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	126
MW-17S	2023 Q2	--	--	< 0.002 U	--	1.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	162
MW-17S	2023 Q4	--	--	< 0.006 U	--	2.77	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	72
MW-17S	2024 Q2	--	--	< 0.002 U	--	1.22 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88.8
MW-17S	2024 Q4	--	--	< 0.002 U	--	0.836 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	149 J
MW-18S	1999 Q1	15	0.17	--	--	4800	--	--	--	--	--	--	--	--	--	1.1	15000
MW-18S	1999 Q2	18	0.23	--	--	2000	--	--	--	--	--	--	--	--	--	0.17	20000
MW-18S	1999 Q3	9.2	0.3	--	--	780	--	--	--	--	--	--	--	--	--	0.21	20000
MW-18S	1999 Q4	3.9	0.26	--	--	870	--	--	--	--	--	--	--	--	--	0.24	1500
MW-18S	2000 Q1	8.3	0.4	--	--	420	--	--	--	--	--	--	--	--	--	< 0.065 U	4800
MW-18S	2000 Q2	1.2	0.22	--	--	44	--	--	--	--	--	--	--	--	--	0.24	240
MW-18S	2000 Q3	0.39	0.46	--	--	71	--	--	--	--	--	--	--	--	--	0.092	310
MW-18S	2000 Q4	0.38	0.207	--	< 0.01 U	122.1	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	3440
MW-18S	2001 Q1	1.29	1.12	--	0.012	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.097	< 0.065 U	--	--	--	2422.91
MW-18S	2001 Q1	--	--	--	--	146.4	--	--	--	--	--	--	--	--	--	--	--
MW-18S	2001 Q2	0.56	0.923	--	< 0.01 U	126.4	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1258.57
MW-18S	2001 Q3	1.16	0.749	--	< 0.01 U	135.8	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1958.33
MW-18S	2001 Q4	0.63	0.552	--	0.0135	119.7	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	2400.9
MW-18S	2002 Q1	0.62	0.521	--	< 0.01 U	127.7	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.134	< 0.065 U	--	--	--	190.52
MW-18S	2002 Q2	0.57	0.465	--	< 0.01 U	69.21	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.13	< 0.065 U	< 0.065 U	--	--	--	982.66
MW-18S	2002 Q3	0.15	0.362	--	< 0.01 U	89.35	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1062.29
MW-18S	2002 Q4	0.099	0.246	--	< 0.01 U	78.52	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1150.97
MW-18S	2003 Q1	0.244	0.267	--	< 0.01 U	77.38	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.07	--	--	--	1319.27
MW-18S	2003 Q2	0.055	0.299	--	< 0.01 U	88.88	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1281.21
MW-18S	2003 Q3	0.075	0.284	--	< 0.01 U	71.09	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1413.09
MW-18S	2003 Q4	0.102	0.241	--	< 0.01 U	88.18	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.19	< 0.065 U	< 0.065 U	--	--	--	1753.81
MW-18S	2004 Q1	0.086	0.316	--	< 0.01 U	84.25	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1154.05
MW-18S	2004 Q2	0.129	0.354	--	< 0.01 U	81.11	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	827.73
MW-18S	2004 Q3	0.081	0.432	--	< 0.01 U	76.42	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.217	< 0.065 U	< 0.065 U	--	--	--	790.49
MW-18S	2004 Q4	0.14	0.337	--	< 0.01 U	14.84	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	1162.81
MW-18S	2005 Q1	0.329	0.311	--	< 0.01 U	106.2	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	822.5
MW-18S	2005 Q2	0.231	0.286	--	< 0.01 U	85.58	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	797.41
MW-18S	2005 Q3	0.15	0.337	--	< 0.01 U	57.37	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	595.18
MW-18S	2005 Q4	0.327	0.288	--	< 0.01 U	77.52	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.142	< 0.065 U	< 0.065 U	--	--	--	711.67
MW-18S	2006 Q1	0.294	0.183	--	< 0.01 U	76.71	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.108	< 0.065 U	< 0.065 U	--	--	--	705.46
MW-18S	2006 Q2	0.101	0.08	--	< 0.01 U	45.1	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.068	< 0.065 U	< 0.065 U	--	--	--	369.47
MW-18S	2006 Q3	0.067	0.088	--	< 0.01 U	45.81	--	--	--	< 0.065 U	0.087	< 0.065 U	< 0.065 U	--	--	--	584.56
MW-18S	2006 Q4	0.077	0.14	--	< 0.01 U	64.3	--	--	--	< 0.065 U	0.13	0.11	< 0.065 U	--	--	--	473.31
MW-18S	2007 Q1	0.118	0.148	--	< 0.01 U	75.88	--	--	--	0.073	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	610.75
MW-18S	2007 Q2	0.113	< 0.01 UJ	--	< 0.01 U	53.57	--	--	--	< 0.065 U	0.109	< 0.065 U	< 0.065 U	--	--	--	491.18
MW-18S	2007 Q3	0.07	0.094	--	< 0.01 U	57.16	--	--	--	< 0.065 U	0.095	< 0.065 U	< 0.065 U	--	--	--	499.98
MW-18S	2007 Q4	0.053	0.045	--	< 0.005 U	52.66	--	--	--	< 0.065 U	0.149	< 0.065 U	< 0.065 U	--	--	--	470
MW-18S	2008 Q1	0.095	0.063	--	< 0.01 UJ	4.868	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	445
MW-18S	2008 Q2	0.289	0.058	--	0.037 R	39.38	--	--	--	< 0.065 U	0.101	< 0.065 U	< 0.065 U	--	--	--	198
MW-18S	2008 Q3	0.233	0.057 R	--	< 0.01 U	49.31	--	--	--	< 0.065 U	0.188	< 0.065 U	< 0.065 U	--	--	--	420
MW-18S	2008 Q4	0.124	0.058	--	< 0.01 U	51.48	--	--	--	< 0.065 U	0.133	< 0.065 U	< 0.065 U	--	--	--	433
MW-18S	2009 Q1	0.2 U	0.0977 R	--	< 0.006 U	63.2	--	--	--	< 0.169 U	< 0.169 U	< 0.24 U	< 0.24 U	--	--	--	506 J

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-18S	2009 Q2	< 0.2 U	0.0725	--	--	63.62	--	--	--	< 0.065 U	0.109	< 0.065 U	< 0.065 U	--	--	--	430
MW-18S	2009 Q3	0.24	0.0627	--	< 0.01 U	59.85	--	--	--	< 0.065 U	0.11	< 0.065 U	< 0.065 U	--	--	--	520
MW-18S	2009 Q4	0.068	0.0691	--	< 0.01 U	58.47	--	--	--	< 0.065 U	0.094	< 0.065 U	< 0.065 U	--	--	--	500
MW-18S	2010 Q1	0.152	0.0258 J	--	< 0.01 UJ	38.7	--	--	--	< 0.065 U	0.133	< 0.065 U	< 0.065 U	--	--	--	386
MW-18S	2010 Q2	--	0.08	--	0.011	44.27 J	--	--	--	< 0.065 U	0.107	< 0.065 U	< 0.065 U	--	--	--	423
MW-18S	2010 Q3	0.08	0.074	--	< 0.01 U	56.15	--	--	--	0.0825 PD	< 0.0699 U	< 0.0699 U	< 0.0699 U	--	--	--	491
MW-18S	2010 Q4	0.281	0.096	--	< 0.01 U	60.53	--	--	--	< 0.065 U	0.117	< 0.065 U	< 0.065 U	--	--	--	443
MW-18S	2011 Q1	0.27	0.074	--	< 0.01 U	63.1	--	--	--	--	--	--	--	--	--	--	371
MW-18S	2011 Q2	0.16	0.061	--	< 0.01 U	48.6	--	--	--	< 0.0677 U	< 0.0677 U	< 0.0677 U	< 0.0677 U	--	--	--	417
MW-18S	2011 Q3	1.27	0.103	--	< 0.01 U	67.2	--	--	--	< 0.065 U	0.19	< 0.065 U	< 0.065 U	--	--	--	618
MW-18S	2011 Q4	0.39	0.08	--	< 0.01 UJ	73.2	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	466
MW-18S	2012 Q1	0.84	0.051	--	< 0.01 U	70.6	--	--	--	< 0.065 U	0.17	< 0.065 U	< 0.065 U	--	--	--	389
MW-18S	2012 Q3	1.25	0.038	--	< 0.01 UJ	48.5	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	403
MW-18S	2012 Q4	0.94	0.04	--	< 0.01 U	71.7	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	327
MW-18S	2012 Q4	1.18	0.045	--	< 0.01 UJ	73.1	--	--	--	< 0.064 U	< 0.064 U	< 0.064 U	< 0.064 U	--	--	--	371
MW-18S	2013 Q2	3.33	0.022	--	< 0.01 U	77.7 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	192
MW-18S	2013 Q4	4.44	0.074	--	< 0.01 U	65.9	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	508
MW-18S	2014 Q2	1.21	0.023	--	< 0.01 U	33.4	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	263
MW-18S	2014 Q4	2.11	0.032	--	< 0.01 U	33.8	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	405
MW-18S	2015 Q3	1.82	0.037	--	< 0.01 U	53.5	--	--	--	< 0.061 U	0.091	< 0.061 U	< 0.061 U	--	--	--	330
MW-18S	2015 Q4	2.73	0.052	--	< 0.01 U	60	--	--	--	< 0.061 U	0.095	< 0.061 U	< 0.061 U	--	--	--	689
MW-18S	2016 Q2	2.05	0.005	--	--	57	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	425
MW-18S	2016 Q4	1.61	0.006	--	< 0.01 U	55.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285
MW-18S	2017 Q2	4.23	0.025	--	0.015 J	60.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180
MW-18S	2017 Q4	0.819	0.023	--	0.0065 J	31.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	270
MW-18S	2018 Q2	0.371	0.018	--	0.0061 J	24.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	318
MW-18S	2018 Q4	0.18	0.02	--	< 0.01 U	27.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	250
MW-18S	2019 Q2	0.111	0.035	--	0.019	20.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	250
MW-18S	2019 Q4	0.072 J	0.051	--	< 0.01 UJ	27.9	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	282
MW-18S	2020 Q2	0.082 J	0.023 J	--	< 0.01 U	22.1 J	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	226
MW-18S	2020 Q4	0.051 J	0.007	--	< 0.01 U	29.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178
MW-18S	2021 Q2	0.0629 J	0.018 J	--	< 0.01 U	26.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-18S	2021 Q4	--	0.0239	< 0.02 U	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18S	2021 Q4	0.0571	0.019	--	< 0.01 U	25.2	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-18S	2022 Q2	0.0709	0.009	--	< 0.01 U	20.1	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	268
MW-18S	2022 Q4	0.0345	0.01	--	< 0.01 U	20	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	244
MW-18S	2023 Q2	--	0.01 J	< 0.002 U	< 0.01 U	25.7	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	283
MW-18S	2023 Q4	--	--	< 0.006 U	--	15.4	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	240
MW-18S	2024 Q2	--	--	< 0.002 U	--	18.9	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	250
MW-18S	2024 Q4	--	--	< 0.002 U	--	16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	210
MW-19S	1999 Q1	0.09	< 0.01 U	--	--	2.7	--	--	--	--	--	--	--	--	--	< 0.065 U	490
MW-19S	1999 Q2	0.16	< 0.01 U	--	--	2	--	--	--	--	--	--	--	--	--	< 0.065 U	340
MW-19S	1999 Q3	0.2	< 0.01 U	--	--	2.2	--	--	--	--	--	--	--	--	--	< 0.065 U	390
MW-19S	1999 Q4	0.14	< 0.01 U	--	--	3.7	--	--	--	--	--	--	--	--	--	< 0.065 U	350
MW-19S	2000 Q1	0.19	< 0.01 U	--	--	2.6	--	--	--	--	--	--	--	--	--	< 0.065 U	290
MW-19S	2000 Q2	0.21	< 0.01 U	--	--	4.3	--	--	--	--	--	--	--	--	--	< 0.065 U	470
MW-19S	2000 Q3	0.1	< 0.01 U	--	--	4.3	--	--	--	--	--	--	--	--	--	< 0.065 U	360
MW-19S	2000 Q4	0.42	< 0.01 U	--	< 0.01 U	4.715	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	339
MW-19S	2001 Q1	< 0.01 U	< 0.01 U	--	< 0.01 U	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	406.56
MW-19S	2001 Q1	--	--	--	--	3.524	--	--	--	--	--	--	--	--	--	--	--
MW-19S	2001 Q2	< 0.01 U	< 0.01 U	--	< 0.01 U	3.051	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	459.23

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-19S	2001 Q3	0.16	< 0.01 U	--	< 0.01 U	4.359	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	327.97
MW-19S	2001 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	4.455	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	275.71
MW-19S	2002 Q1	< 0.01 U	< 0.01 U	--	< 0.01 U	4.768	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	349.78
MW-19S	2002 Q2	< 0.01 U	< 0.01 U	--	< 0.01 U	3.771	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	381.46
MW-19S	2002 Q3	< 0.01 U	< 0.01 U	--	< 0.01 U	4.755	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	310.48
MW-19S	2002 Q4	0.054	< 0.01 U	--	< 0.01 U	8.876	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.07	< 0.065 U	--	--	--	246.49
MW-19S	2003 Q1	0.046	< 0.01 U	--	< 0.01 U	8.491	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	312.123
MW-19S	2003 Q2	< 0.01 U	< 0.01 U	--	< 0.01 U	5.187	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	331.46
MW-19S	2003 Q3	0.083	< 0.01 U	--	< 0.01 U	7.794	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	308.42
MW-19S	2003 Q4	0.289	< 0.01 U	--	< 0.01 U	6.739	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	225.09
MW-19S	2004 Q1	4.346	< 0.01 U	--	< 0.01 U	7.551	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285.17
MW-19S	2004 Q2	0.972	< 0.01 U	--	< 0.01 U	0.457	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	212.75
MW-19S	2004 Q3	0.694	< 0.01 U	--	< 0.01 U	4.238	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	181.06
MW-19S	2004 Q4	0.497	< 0.01 U	--	< 0.01 U	6.609	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	190.32
MW-19S	2005 Q1	1.157	< 0.01 U	--	< 0.01 U	8.789	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	242.64
MW-19S	2005 Q2	1.201	< 0.01 U	--	< 0.01 U	5.769	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	197.31
MW-19S	2005 Q3	0.454	< 0.01 U	--	< 0.01 U	4.667	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178.24
MW-19S	2005 Q4	1.507	< 0.01 U	--	< 0.01 U	4.569	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.145	0.067	< 0.065 U	--	--	--	290.16
MW-19S	2006 Q1	0.476	< 0.01 U	--	< 0.01 U	5.686	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	266.89
MW-19S	2006 Q2	1.555	< 0.01 U	--	< 0.01 U	3.592	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	112.62
MW-19S	2006 Q3	0.375	< 0.01 U	--	< 0.01 U	3.329	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	106.94
MW-19S	2006 Q4	0.325 J	< 0.01 U	--	< 0.01 U	4.641	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	66.95 J
MW-19S	2007 Q1	1.119	< 0.01 U	--	< 0.01 U	8.192	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	203.42
MW-19S	2007 Q2	0.412	< 0.01 U	--	< 0.01 U	6.407	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	247.41
MW-19S	2007 Q3	0.512	< 0.01 U	--	< 0.01 U	8.341	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	182.51
MW-19S	2007 Q4	1.567	< 0.005 U	--	< 0.005 U	7.331	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	190
MW-19S	2008 Q1	0.341	< 0.01 U	--	< 0.01 UJ	7.228	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201
MW-19S	2008 Q2	0.599	< 0.005 U	--	< 0.01 UJ	4.461	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	154 J
MW-19S	2008 Q3	0.404	< 0.005 U	--	< 0.01 U	5.019	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	140
MW-19S	2008 Q4	0.747	< 0.005 U	--	< 0.01 U	6.388	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186
MW-19S	2009 Q1	0.848	< 0.005 UJ	--	< 0.006 U	10.4	--	--	--	< 0.176 U	< 0.176 U	< 0.25 U	< 0.25 U	--	--	--	222 J
MW-19S	2009 Q2	0.369 J	< 0.01 U	--	< 0.01 U	8.525	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	109
MW-19S	2009 Q3	1.06	< 0.01 U	--	< 0.01 U	7.853	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	169 J
MW-19S	2009 Q4	0.105	< 0.01 U	--	< 0.01 U	5.71	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	423
MW-19S	2010 Q1	5.94	< 0.01 U	--	< 0.01 UJ	2.51	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	394
MW-19S	2010 Q2	--	< 0.01 U	--	< 0.01 U	2.722 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	242
MW-19S	2010 Q3	0.816	< 0.01 U	--	< 0.01 U	3.605	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	250
MW-19S	2010 Q4	1.915 J	< 0.01 U	--	< 0.01 U	4.051	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	231
MW-19S	2011 Q1	0.3	< 0.01 U	--	< 0.01 U	4.78	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	191
MW-19S	2011 Q2	0.19	< 0.01 U	--	< 0.01 U	2.83	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	195
MW-19S	2011 Q3	0.59	< 0.01 U	--	< 0.01 U	2.77	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	184
MW-19S	2011 Q4	0.66	< 0.01 U	--	< 0.01 UJ	5.03	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	221
MW-19S	2012 Q1	0.32	< 0.01 U	--	< 0.01 U	6.18 J	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	227
MW-19S	2012 Q3	0.44	< 0.01 U	--	< 0.01 U	6.82	--	--	--	< 0.061 U	< 0.061 U	0.064	< 0.061 U	--	--	--	207
MW-19S	2012 Q4	0.3	< 0.01 U	--	< 0.01 U	7.65	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	198
MW-19S	2012 Q4	0.61	< 0.01 U	--	< 0.01 UJ	6.72	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	212
MW-19S	2013 Q2	0.69	< 0.01 U	--	< 0.01 U	6.01	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	236
MW-19S	2013 Q4	0.84	< 0.01 U	--	< 0.01 U	6.04	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	168
MW-19S	2014 Q2	0.9	< 0.01 U	--	< 0.01 U	4.5	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	180
MW-19S	2014 Q4	0.68	< 0.01 U	--	< 0.01 U	5.44	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	129
MW-19S	2015 Q3	0.2	< 0.01 U	--	< 0.01 U	4.68	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	170

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-19S	2015 Q4	0.71	< 0.01 U	--	< 0.01 U	4.63	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	142
MW-19S	2016 Q2	12	0.001 J	--	--	3.36	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	104
MW-19S	2016 Q4	0.326	< 0.005 U	--	< 0.01 U	3.18	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	142
MW-19S	2017 Q2	0.168	0.002 J	--	< 0.01 U	5.21	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	215
MW-19S	2018 Q1	0.186	< 0.005 U	--	< 0.01 U	3.02	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	161
MW-19S	2018 Q2	0.123	< 0.005 U	--	0.0068 J	3.16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	117
MW-19S	2019 Q1	0.099 J	< 0.005 U	--	< 0.01 U	3.49	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	158
MW-19S	2019 Q2	0.042 J	< 0.005 U	--	< 0.01 UJ	2.61 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	272
MW-19S	2019 Q4	0.051 J	< 0.005 U	--	< 0.01 U	3.38	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	130
MW-19S	2020 Q2	< 0.1 U	< 0.005 U	--	< 0.01 U	3.49	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	97.6
MW-19S	2020 Q4	0.033 J	< 0.005 U	--	< 0.01 U	3.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	101
MW-19S	2021 Q2	0.0165	0.002 J	--	< 0.01 U	3.57	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-19S	2021 Q4	0.0274	< 0.005 U	--	< 0.01 U	3.34	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-19S	2022 Q2	0.0184	< 0.005 U	--	< 0.01 U	2.8	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	88.3
MW-19S	2022 Q4	0.0134	< 0.005 U	--	< 0.01 U	2.94	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	90.9
MW-19S	2023 Q2	--	--	< 0.002 U	--	3.13	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	63.9
MW-19S	2023 Q4	--	--	< 0.006 U	--	3.29	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	98.4
MW-19S	2024 Q2	--	--	< 0.002 U	--	2.99 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	69.3
MW-19S	2024 Q4	--	--	< 0.002 U	--	2.68 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	80.3 J
MW-36	1999 Q1	1.1	< 0.01 U	--	--	3.6	--	--	--	--	--	--	--	--	--	< 0.065 U	340
MW-36	1999 Q2	0.47	< 0.01 U	--	--	2.9	--	--	--	--	--	--	--	--	--	< 0.065 U	450
MW-36	1999 Q3	0.46	0.02	--	--	2.2	--	--	--	--	--	--	--	--	--	< 0.065 U	630
MW-36	1999 Q4	0.31	< 0.01 U	--	--	2.9	--	--	--	--	--	--	--	--	--	< 0.065 U	610
MW-36	2000 Q1	0.48	0.06	--	--	1.7	--	--	--	--	--	--	--	--	--	< 0.065 U	530
MW-36	2000 Q2	1	< 0.01 U	--	--	3.4	--	--	--	--	--	--	--	--	--	< 0.065 U	500
MW-36	2000 Q3	0.53	< 0.01 U	--	--	3.3	--	--	--	--	--	--	--	--	--	< 0.065 U	510
MW-36	2000 Q4	0.21	< 0.01 U	--	< 0.01 U	3.479	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	513
MW-36	2001 Q1	0.24	< 0.01 U	--	< 0.01 U	3.484	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	625.27
MW-36	2001 Q2	3.79	< 0.01 U	--	< 0.01 U	3.589	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	662.1
MW-36	2001 Q3	1.7	< 0.01 U	--	< 0.01 U	3.697	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	667.04
MW-36	2001 Q4	1.09	< 0.01 U	--	< 0.01 U	3.291	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	643.59
MW-36	2002 Q1	0.71	< 0.01 U	--	< 0.01 U	3.397	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	652.23
MW-36	2002 Q2	0.14	< 0.01 U	--	< 0.01 U	3.081	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	683.09
MW-36	2002 Q3	0.29	< 0.01 U	--	< 0.01 U	3.519	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	664.98
MW-36	2002 Q4	0.085	< 0.01 U	--	< 0.01 U	3.481	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	663.54
MW-36	2003 Q1	5.672	< 0.01 U	--	< 0.01 U	3.748	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	697.287
MW-36	2003 Q2	62.53	< 0.01 U	--	< 0.01 U	3.629	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	719.1
MW-36	2003 Q3	37.19	< 0.01 U	--	< 0.01 U	3.772	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	691.32
MW-36	2003 Q4	98.57	< 0.01 U	--	< 0.01 U	3.541	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	692.35
MW-36	2004 Q1	54.29	< 0.01 U	--	< 0.01 U	3.519	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	680
MW-36	2004 Q2	65.49	< 0.01 U	--	< 0.01 U	3.391	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	690.91
MW-36	2004 Q3	52.55	< 0.01 U	--	< 0.01 U	3.754	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	682.47
MW-36	2004 Q4	44.15	< 0.01 U	--	< 0.01 U	3.8	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	637.83
MW-36	2005 Q1	85.78	6.61	--	< 0.01 U	3.291	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	675.18
MW-36	2005 Q2	57.42	< 0.01 U	--	< 0.01 U	3.501	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	703.41
MW-36	2005 Q3	48.23	< 0.01 U	--	< 0.01 U	3.516	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	682.1
MW-36	2005 Q4	51.75	< 0.01 U	--	< 0.01 U	2.613	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	656.68
MW-36	2006 Q1	46.69	< 0.01 U	--	< 0.01 U	3.259	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	639.53
MW-36	2006 Q2	41.55	< 0.01 U	--	< 0.01 U	2.61	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	626.05
MW-36	2006 Q3	77.12	< 0.01 U	--	< 0.01 U	2.909	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	665.24
MW-36	2006 Q4	3.292	< 0.01 U	--	< 0.01 U	3.152	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	491.78

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-36	2007 Q1	41.7	< 0.01 U	--	< 0.01 U	2.833	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	562.15
MW-36	2007 Q2	39.65	< 0.01 U	--	< 0.01 U	2.955	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	575.81
MW-36	2007 Q3	138	< 0.01 U	--	< 0.01 U	2.731	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	514.74
MW-36	2007 Q4	50.13	< 0.005 U	--	< 0.005 U	2.822	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	520
MW-36	2008 Q1	153	< 0.01 U	--	< 0.01 U	2.741	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	498
MW-36	2008 Q2	4.279	< 0.005 U	--	< 0.01 UJ	3.014	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	629 J
MW-36	2008 Q3	356.4	< 0.005 U	--	< 0.01 U	3.608	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	595
MW-36	2008 Q4	5.046	< 0.005 U	--	< 0.01 U	3.899	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	588
MW-36	2009 Q1	65.7	< 0.005 UJ	--	< 0.006 U	2.45	--	--	--	< 0.166 U	< 0.166 U	< 0.236 U	< 0.236 U	--	--	--	589 J
MW-36	2009 Q2	9.73	< 0.01 U	--	< 0.01 U	2.313	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	511
MW-36	2009 Q3	2.82	< 0.01 U	--	< 0.01 U	2.333	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	590
MW-36	2009 Q4	743	< 0.01 U	--	< 0.01 U	2.349	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	566
MW-36	2010 Q1	0.319	< 0.01 U	--	< 0.01 UJ	2.855	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	613
MW-36	2010 Q2	347.2	< 0.01 U	--	< 0.01 U	2.369 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	426
MW-36	2010 Q3	4.344	< 0.01 U	--	< 0.01 U	2.431	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	42.5
MW-36	2010 Q4	4.392	< 0.01 U	--	< 0.02 U	2.3	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	432
MW-36	2011 Q1	7	< 0.01 U	--	< 0.01 U	2.08	--	--	--	< 0.0915 U	< 0.0915 U	< 0.0915 U	< 0.0915 U	--	--	--	421
MW-36	2011 Q2	81.2	< 0.01 U	--	< 0.01 U	2.56	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	424
MW-36	2011 Q3	96.1	< 0.01 U	--	< 0.01 U	1.99	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	432
MW-36	2011 Q4	159	< 0.01 U	--	< 0.01 UJ	2.23	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	443
MW-36	2012 Q1	50.6	< 0.01 U	--	< 0.01 U	2.37 J	--	--	--	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	< 0.064 UJ	--	--	--	424
MW-36	2012 Q3	104	< 0.01 U	--	< 0.01 U	2.1	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	213
MW-36	2012 Q4	43.7	< 0.01 U	--	< 0.01 U	2.03	--	--	--	< 0.061 U	< 0.061 U	0.25 U	< 0.061 U	--	--	--	446
MW-36	2012 Q4	70.6	< 0.01 U	--	< 0.01 UJ	2.09	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	401
MW-36	2013 Q2	59	< 0.01 U	--	< 0.01 U	2.13	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	447
MW-36	2013 Q4	85.1	< 0.01 U	--	< 0.01 U	1.99	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	407
MW-36	2014 Q2	99.3	< 0.01 U	--	< 0.01 U	1.99	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	426
MW-36	2014 Q4	102 J	0.388	--	< 0.01 U	41	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	1640
MW-36	2015 Q3	84.9	< 0.01 U	--	< 0.01 U	2.06	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	414
MW-36	2015 Q4	21.9	< 0.01 U	--	< 0.01 U	2.35	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	535
MW-36	2016 Q2	35	< 0.005 U	--	--	0.382	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	413
MW-36	2017 Q1	78.9	< 0.005 U	--	< 0.01 U	2.08	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	403
MW-36	2017 Q2	36.2	< 0.005 U	--	< 0.01 U	5.69	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	393
MW-36	2018 Q1	22.1	< 0.005 U	--	< 0.01 U	2.26	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	367
MW-36	2018 Q2	24.3	0.002 J	--	< 0.01 U	2.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	406
MW-36	2019 Q1	47.2	< 0.005 U	--	< 0.01 U	2.3	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	386
MW-36	2019 Q2	5.05	< 0.005 U	--	< 0.01 UJ	2.71 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	486
MW-36	2019 Q4	29.7	< 0.005 U	--	< 0.01 U	2.15	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	396 J
MW-36	2020 Q2	6.74	< 0.005 U	--	< 0.01 U	2.35	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	352
MW-36	2020 Q4	25.3	< 0.005 U	--	< 0.01 U	1.99	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	361
MW-36	2021 Q3	93.3	< 0.005 U	--	< 0.01 U	2.27	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	--
MW-36	2021 Q4	50.2	< 0.005 U	--	< 0.01 U	2.08	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-36	2022 Q2	40.6	< 0.005 U	--	< 0.01 U	1.86	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	333
MW-36	2022 Q4	38.4	< 0.005 U	--	< 0.01 U	1.98	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	390
MW-36	2023 Q2	--	--	0.0022	--	2.03	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	346
MW-36	2023 Q4	--	--	< 0.006 U	--	1.75	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	378
MW-36	2024 Q2	--	--	< 0.002 U	--	1.43	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	362
MW-36	2024 Q4	--	--	< 0.002 U	--	1.93	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	330
MW-37	1999 Q1	0.29	< 0.01 U	--	--	0.5	--	--	--	--	--	--	--	--	--	< 0.065 U	250
MW-37	1999 Q2	0.25	< 0.01 U	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	220
MW-37	1999 Q3	0.21	< 0.01 U	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	310

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-37	1999 Q4	0.1	< 0.01 U	--	--	0.5	--	--	--	--	--	--	--	--	--	< 0.065 U	280
MW-37	2000 Q1	0.4	< 0.01 U	--	--	0.6	--	--	--	--	--	--	--	--	--	< 0.065 U	220
MW-37	2000 Q2	0.26	< 0.01 U	--	--	0.5	--	--	--	--	--	--	--	--	--	< 0.065 U	270
MW-37	2000 Q3	0.22	< 0.01 U	--	--	0.4	--	--	--	--	--	--	--	--	--	< 0.065 U	260
MW-37	2000 Q4	< 0.01 U	< 0.01 U	--	< 0.01 U	0.434	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	278
MW-37	2001 Q1	0.99	< 0.01 U	--	< 0.01 U	0.597	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	267.06
MW-37	2001 Q2	0.24	< 0.01 U	--	< 0.01 U	0.772	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	274.68
MW-37	2001 Q3	6.2	< 0.01 U	--	< 0.01 U	0.331	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	260.89
MW-37	2001 Q4	0.24	< 0.01 U	--	< 0.01 U	0.43	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	274.06
MW-37	2002 Q1	0.44	< 0.01 U	--	< 0.01 U	0.48	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	273.24
MW-37	2002 Q2	0.8	< 0.01 U	--	< 0.01 U	0.577	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	275.09
MW-37	2002 Q3	0.5	< 0.01 U	--	< 0.01 U	0.647	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	247.93
MW-37	2002 Q4	0.4	< 0.01 U	--	< 0.01 U	0.504	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	284.96
MW-37	2003 Q1	0.428	< 0.01 U	--	< 0.01 U	0.878	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285.993
MW-37	2003 Q2	28.77	< 0.01 U	--	< 0.01 U	0.54	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	305.54
MW-37	2003 Q3	30.82	< 0.01 U	--	< 0.01 U	1.486	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	279.2
MW-37	2003 Q4	53.38	< 0.01 U	--	< 0.01 U	0.553	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	284.14
MW-37	2004 Q1	34.69	< 0.01 U	--	< 0.01 U	0.665	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	291.14
MW-37	2004 Q2	71.34	< 0.01 U	--	< 0.01 U	1.05	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	283.52
MW-37	2004 Q3	95.7	< 0.01 U	--	< 0.01 U	0.483	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	290.52
MW-37	2004 Q4	68.6	< 0.01 U	--	< 0.01 U	0.666	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	265.57
MW-37	2005 Q1	266.77	< 0.01 U	--	< 0.01 U	0.4677	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	275.92
MW-37	2005 Q2	66.93	< 0.01 U	--	< 0.01 U	0.69	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	287.04
MW-37	2005 Q3	46.11	0.34	--	< 0.01 U	0.8815	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	284.8
MW-37	2005 Q4	3.092	< 0.01 U	--	< 0.01 U	0.427	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	306.65
MW-37	2006 Q1	89.08	< 0.01 U	--	< 0.01 U	0.5457	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.157	0.25	< 0.065 U	--	--	--	326.04
MW-37	2006 Q2	25.75	< 0.01 U	--	< 0.01 U	0.5101	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	269
MW-37	2006 Q3	89.2	< 0.01 U	--	< 0.01 U	0.4557	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	297.92
MW-37	2006 Q4	44.112	< 0.01 U	--	< 0.01 U	0.5275	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	256.47
MW-37	2007 Q1	24.32	< 0.01 U	--	< 0.01 U	0.4771	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	280.1
MW-37	2007 Q2	75.61	< 0.01 U	--	< 0.01 U	0.4423	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	278.52
MW-37	2007 Q3	227.1	< 0.01 U	--	< 0.01 U	0.3365	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	293.42
MW-37	2007 Q4	54.58	< 0.005 U	--	< 0.005 U	0.4539	--	--	--	0.014	0.011	< 0.065 U	< 0.065 U	--	--	--	290
MW-37	2008 Q1	193	< 0.01 U	--	< 0.01 U	0.3342	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	270
MW-37	2008 Q2	123.2	< 0.005 U	--	< 0.01 UJ	0.3076	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	287 J
MW-37	2008 Q3	5.527	< 0.005 U	--	< 0.01 U	0.3784	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	292
MW-37	2008 Q4	6.868	< 0.005 U	--	< 0.01 U	0.3208	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	271
MW-37	2009 Q1	5.36	< 0.005 UJ	--	< 0.006 U	0.1 J	--	--	--	< 0.176 U	< 0.176 U	< 0.25 U	< 0.25 U	--	--	--	311 J
MW-37	2009 Q2	50.2 J	< 0.01 U	--	< 0.01 U	0.2654	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	271
MW-37	2009 Q3	7.48	< 0.01 U	--	< 0.01 U	0.2852	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	270
MW-37	2009 Q4	2.744	< 0.01 U	--	< 0.01 U	0.3339	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	283
MW-37	2010 Q1	9.296	< 0.01 U	--	< 0.01 UJ	0.2578	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	301
MW-37	2010 Q2	115.9	< 0.01 U	--	< 0.01 U	0.2715 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	276
MW-37	2010 Q3	--	< 0.01 U	--	< 0.01 U	0.3202	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	28.5
MW-37	2010 Q4	5.427	< 0.01 U	--	< 0.01 U	0.3146	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285
MW-37	2011 Q1	7.72	< 0.01 U	--	< 0.01 U	0.33	--	--	--	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	--	--	--	293
MW-37	2011 Q2	67.7	< 0.01 U	--	< 0.01 U	0.34	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	279
MW-37	2011 Q3	70.3	< 0.01 U	--	< 0.01 U	0.25	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	287
MW-37	2011 Q4	78.3	< 0.01 U	--	< 0.01 UJ	0.3	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	296
MW-37	2012 Q1	46.2	< 0.01 U	--	< 0.01 U	0.28 J	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	282
MW-37	2012 Q3	117	< 0.01 U	--	< 0.01 U	0.37	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	176

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-37	2012 Q4	55.6	< 0.01 U	--	< 0.01 U	0.23	--	--	--	< 0.061 U	< 0.061 U	0.47	0.12	--	--	--	283
MW-37	2012 Q4	170	< 0.01 U	--	< 0.01 UJ	0.4	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	297
MW-37	2013 Q2	117	< 0.01 U	--	< 0.01 U	0.28	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	304
MW-37	2013 Q4	293	< 0.01 U	--	< 0.01 U	0.28	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	290
MW-37	2014 Q2	351	< 0.01 U	--	< 0.01 U	0.27	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	299
MW-37	2014 Q4	473 J	< 0.01 U	--	< 0.01 U	0.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	289
MW-37	2015 Q3	64.4	< 0.01 U	--	< 0.01 U	0.3	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	296
MW-37	2015 Q4	96	< 0.01 U	--	< 0.01 U	0.33	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	314
MW-37	2016 Q2	29.4	< 0.005 U	--	--	0.279	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	308
MW-37	2017 Q1	29.2	< 0.005 U	--	< 0.01 U	0.263	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285
MW-37	2017 Q2	59.1	< 0.005 U	--	< 0.01 U	2.16	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	287
MW-37	2018 Q1	80.6	< 0.005 U	--	< 0.01 U	0.275	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	319
MW-37	2018 Q2	19	< 0.005 U	--	< 0.01 U	0.39	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	272
MW-37	2019 Q1	300	< 0.005 U	--	< 0.01 U	0.316	--	--	--	< 0.019 U	< 0.019 U	< 0.02 U	< 0.02 U	--	--	--	300
MW-37	2019 Q2	26.6	< 0.005 U	--	< 0.01 UJ	0.324 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	383
MW-37	2019 Q4	74.7	< 0.005 U	--	< 0.01 U	0.321	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	354 J
MW-37	2020 Q2	12.5	0.003 J	--	< 0.01 U	0.59	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	292
MW-37	2020 Q4	25.2	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	308
MW-37	2021 Q3	33.7	< 0.005 U	--	< 0.01 U	0.32	--	--	--	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	--	--	--	--
MW-37	2021 Q4	34.3	< 0.005 U	--	< 0.01 U	0.32	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-37	2022 Q2	45.7	< 0.005 U	--	< 0.01 U	0.229	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	288
MW-37	2022 Q4	32.8	< 0.005 U	--	< 0.01 U	0.284	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	310
MW-37	2023 Q2	--	--	< 0.002 U	--	0.317	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	296
MW-37	2023 Q4	--	--	< 0.006 UJ	--	0.332	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	318
MW-37	2024 Q2	--	--	< 0.002 U	--	0.259	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	316
MW-37	2024 Q4	--	--	< 0.002 U	--	0.267	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	285
MW-38	1999 Q1	0.69	< 0.01 U	--	--	0.7	--	--	--	--	--	--	--	--	--	< 0.065 U	180
MW-38	1999 Q2	0.37	< 0.01 U	--	--	0.6	--	--	--	--	--	--	--	--	--	< 0.065 U	170
MW-38	1999 Q3	0.36	< 0.01 U	--	--	0.5	--	--	--	--	--	--	--	--	--	< 0.065 U	170
MW-38	1999 Q4	0.27	< 0.01 U	--	--	0.7	--	--	--	--	--	--	--	--	--	< 0.065 U	180
MW-38	2000 Q1	0.51	< 0.01 U	--	--	0.7	--	--	--	--	--	--	--	--	--	< 0.065 U	160
MW-38	2000 Q2	3.3	< 0.01 U	--	--	0.7	--	--	--	--	--	--	--	--	--	< 0.065 U	190
MW-38	2000 Q3	0.37	< 0.01 U	--	--	0.6	--	--	--	--	--	--	--	--	--	< 0.065 U	200
MW-38	2000 Q4	0.13	< 0.01 U	--	< 0.01 U	0.554	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178
MW-38	2001 Q1	0.78	< 0.01 U	--	< 0.01 U	0.671	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	193.82
MW-38	2001 Q2	0.4	< 0.01 U	--	< 0.01 U	0.764	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	198.34
MW-38	2001 Q3	13.47	< 0.01 U	--	< 0.01 U	0.486	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	176.33
MW-38	2001 Q4	0.48	< 0.01 U	--	< 0.01 U	0.656	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	177.97
MW-38	2002 Q1	0.73	< 0.01 U	--	< 0.01 U	0.69	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	172.83
MW-38	2002 Q2	0.86	< 0.01 U	--	< 0.01 U	0.863	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	179
MW-38	2002 Q3	0.54	< 0.01 U	--	< 0.01 U	0.764	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	163.37
MW-38	2002 Q4	1.484	< 0.01 U	--	< 0.01 U	0.774	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	184.97
MW-38	2003 Q1	22.28	< 0.01 U	--	< 0.01 U	1.113	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	183.529
MW-38	2003 Q2	33.63	< 0.01 U	--	< 0.01 U	1.071	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	0.078	< 0.065 U	< 0.065 U	--	--	--	284.14
MW-38	2003 Q3	36.27	< 0.01 U	--	< 0.01 U	1.361	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174.89
MW-38	2003 Q4	116.7	< 0.01 U	--	< 0.01 U	0.698	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178.18
MW-38	2004 Q1	106.4	< 0.01 U	--	< 0.01 U	0.835	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	182.09
MW-38	2004 Q2	43.29	< 0.01 U	--	< 0.01 U	2.686	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178.39
MW-38	2004 Q3	106.25	< 0.01 U	--	< 0.01 U	0.814	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	177.15
MW-38	2004 Q4	148.34	< 0.01 U	--	< 0.01 U	0.911	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	159.68
MW-38	2005 Q1	109.48	< 0.01 U	--	< 0.01 U	0.7393	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	177.08

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-38	2005 Q2	116.51	0.0105	--	< 0.01 U	0.807	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	181.91
MW-38	2005 Q3	82.35	< 0.01 U	--	< 0.01 U	1.255	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	173.1
MW-38	2005 Q4	10.798	< 0.01 U	--	< 0.01 U	0.4902	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	201.12
MW-38	2006 Q1	98.23	< 0.01 U	--	< 0.01 U	0.5365	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	179.74
MW-38	2006 Q2	34.74	< 0.01 U	--	< 0.01 U	0.7073	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	195.49
MW-38	2006 Q3	134.6	< 0.01 U	--	< 0.01 U	0.4929	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	179.96
MW-38	2006 Q4	4.045	< 0.01 U	--	< 0.01 U	0.9198	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	162.09
MW-38	2007 Q1	48.55	< 0.01 U	--	< 0.01 U	0.7634	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	173.92
MW-38	2007 Q2	133.3	< 0.01 U	--	< 0.01 U	0.5055	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178.19
MW-38	2007 Q3	75.3	< 0.01 U	--	< 0.01 U	0.3882	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	184.7
MW-38	2007 Q4	165.8	< 0.005 U	--	< 0.005 U	0.6454	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180
MW-38	2008 Q1	298	< 0.01 U	--	< 0.01 U	0.5192	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	181
MW-38	2008 Q2	242.7	< 0.005 U	--	< 0.01 UJ	0.5395	--	--	--	< 0.065 UJ	0.085 J	< 0.065 UJ	< 0.065 UJ	--	--	--	182 J
MW-38	2008 Q3	469.5	< 0.005 U	--	< 0.01 U	0.5061	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	177
MW-38	2008 Q4	6.278	< 0.005 U	--	< 0.01 U	0.5228	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	166
MW-38	2009 Q1	161	< 0.005 UJ	--	< 0.006 U	0.35	--	--	--	< 0.18 U	< 0.18 U	< 0.255 U	< 0.255 U	--	--	--	182 J
MW-38	2009 Q2	202 J	< 0.01 U	--	< 0.01 UJ	0.4412	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	152
MW-38	2009 Q3	156	< 0.01 U	--	< 0.01 U	0.4614	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	151
MW-38	2009 Q4	36.06	< 0.01 U	--	< 0.01 U	0.4708	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174
MW-38	2010 Q1	4.413	< 0.01 U	--	< 0.01 UJ	0.4368	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180
MW-38	2010 Q2	100.5	< 0.01 U	--	< 0.01 U	0.44	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	163
MW-38	2010 Q3	2.151	< 0.01 U	--	< 0.01 U	0.5451	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	40.7
MW-38	2010 Q4	161.6	< 0.01 U	--	< 0.02 U	0.4898	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	171
MW-38	2011 Q1	822	< 0.01 U	--	< 0.01 U	0.49	--	--	--	< 0.0677 U	< 0.0677 U	< 0.0677 U	< 0.0677 U	--	--	--	177
MW-38	2011 Q2	368	< 0.01 U	--	< 0.01 U	0.49	--	--	--	< 0.0677 U	0.122 AE	< 0.0677 U	< 0.0677 U	--	--	--	176
MW-38	2011 Q3	352	< 0.01 U	--	< 0.01 U	0.41	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	--	--	--	179
MW-38	2011 Q4	251	< 0.01 U	--	< 0.01 UJ	0.44	--	--	--	< 0.063 U	< 0.063 U	< 0.063 U	< 0.063 U	--	--	--	178
MW-38	2012 Q1	126	< 0.01 U	--	< 0.01 U	0.49 J	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	176
MW-38	2012 Q3	102	< 0.01 U	--	< 0.01 U	0.43	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	120
MW-38	2012 Q4	104	< 0.01 U	--	< 0.01 U	0.41	--	--	--	< 0.061 U	< 0.061 U	0.16 U	< 0.061 U	--	--	--	169
MW-38	2012 Q4	105	< 0.01 U	--	< 0.01 UJ	0.47	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	174
MW-38	2013 Q2	39.4	< 0.01 U	--	< 0.01 U	0.46	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	183
MW-38	2013 Q4	83.5	< 0.01 U	--	< 0.01 U	0.46	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	178
MW-38	2014 Q2	105	< 0.01 U	--	< 0.01 U	0.45	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	174
MW-38	2014 Q4	179 J	< 0.01 U	--	< 0.01 U	0.48	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	174
MW-38	2015 Q3	41.9	< 0.01 U	--	< 0.01 U	0.49	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	176
MW-38	2015 Q4	26.8	< 0.01 U	--	< 0.01 U	0.53	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	185
MW-38	2016 Q2	44.9	< 0.005 U	--	--	0.478	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	202
MW-38	2017 Q1	29.6	< 0.005 U	--	< 0.01 U	0.47	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	186
MW-38	2017 Q2	40.8	0.004 J	--	< 0.01 U	1.77	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	121
MW-38	2018 Q1	34.7	< 0.005 U	--	< 0.01 U	0.435	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	174
MW-38	2018 Q2	15	< 0.005 U	--	< 0.01 UJ	0.579	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	187
MW-38	2019 Q1	44.2	< 0.005 U	--	< 0.01 U	0.4	--	--	--	< 0.02 U	< 0.02 U	< 0.021 U	< 0.021 U	--	--	--	182
MW-38	2019 Q2	11.2	< 0.005 U	--	< 0.01 UJ	0.475 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	213
MW-38	2019 Q4	39.1	< 0.005 U	--	< 0.01 U	0.484	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	219 J
MW-38	2020 Q2	9.6	< 0.005 U	--	< 0.01 U	0.756	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	185
MW-38	2020 Q4	16.2	< 0.005 U	--	< 0.01 U	0.453 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	182
MW-38	2021 Q2	44.8	< 0.005 U	--	< 0.01 U	0.48	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-38	2021 Q4	34.6	< 0.005 U	--	< 0.01 U	0.513	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-38	2022 Q2	36.7	< 0.005 U	--	< 0.01 U	0.417	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178
MW-38	2022 Q4	11.7	< 0.005 U	--	< 0.01 U	0.462	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	188

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-38	2023 Q2	--	--	< 0.002 U	--	0.773	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	183
MW-38	2023 Q4	--	--	< 0.006 UJ	--	0.494	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	198
MW-38	2024 Q2	--	--	< 0.002 U	--	0.416	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	194
MW-38	2024 Q4	--	--	< 0.002 U	--	0.497	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	188
MW-41	2006 Q2	--	< 0.01 U	--	< 0.01 U	0.4405	--	--	--	--	--	--	--	--	--	--	130.96
MW-41	2006 Q3	--	< 0.01 U	--	< 0.01 U	0.4168	--	--	--	--	--	--	--	--	--	--	178.04
MW-41	2006 Q4	17.412	< 0.01 U	--	< 0.01 U	0.4099	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	167.49
MW-41	2007 Q1	6.79	< 0.01 U	--	< 0.01 U	0.5423	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	169.64
MW-41	2007 Q2	13.92	< 0.01 U	--	< 0.01 U	0.3869	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	163.46
MW-41	2007 Q3	49.36	< 0.01 U	--	< 0.01 U	0.2851	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	192.71
MW-41	2007 Q4	61.55	< 0.005 U	--	0.008	0.3982	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	180
MW-41	2008 Q1	21.4	< 0.01 U	--	< 0.01 UJ	0.3603	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	206
MW-41	2008 Q2	66.92	< 0.005 U	--	0.018 R	0.5226	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	922
MW-41	2008 Q3	2.224	< 0.005 U	--	< 0.01 U	0.334	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178
MW-41	2008 Q4	24.06	< 0.005 U	--	< 0.01 U	0.345	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	178
MW-41	2009 Q1	8.02	< 0.005 R	--	< 0.006 U	0.28	--	--	--	< 0.176 U	< 0.176 U	< 0.25 U	< 0.25 U	--	--	--	198 J
MW-41	2009 Q2	7.9 J	< 0.01 U	--	< 0.01 U	0.3448	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	173
MW-41	2009 Q3	5.42	< 0.01 U	--	< 0.01 U	0.3228	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	196
MW-41	2009 Q4	9.81	< 0.01 U	--	0.023	0.3409	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	218
MW-41	2010 Q1	5.563	< 0.01 U	--	< 0.01 UJ	0.2835	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	305
MW-41	2010 Q2	44.48	< 0.01 U	--	< 0.01 U	0.324 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	336
MW-41	2010 Q3	5.821	< 0.01 U	--	< 0.01 U	0.3902	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	382
MW-41	2010 Q4	4.456	< 0.01 U	--	< 0.01 U	0.3768	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	458
MW-41	2011 Q1	20.9 J	< 0.01 U	--	< 0.01 U	0.37	--	--	--	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	--	--	--	492
MW-41	2011 Q2	11.5	< 0.01 U	--	< 0.01 U	0.38	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	483
MW-41	2011 Q3	19.9	< 0.01 U	--	< 0.01 U	0.24	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	< 0.049 U	--	--	--	509
MW-41	2011 Q4	11.4 J	< 0.01 U	--	< 0.01 UJ	0.29	--	--	--	< 0.066 U	< 0.066 U	< 0.066 U	< 0.066 U	--	--	--	538
MW-41	2012 Q1	11.8	< 0.01 U	--	< 0.01 U	0.28 J	--	--	--	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	< 0.065 UJ	--	--	--	527
MW-41	2012 Q3	67.5	< 0.01 UJ	--	< 0.01 U	0.39	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	514
MW-41	2012 Q4	16.3 J	< 0.01 U	--	< 0.01 U	0.16	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	510
MW-41	2012 Q4	13.3	< 0.01 U	--	< 0.01 UJ	0.28	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	508
MW-41	2013 Q2	31.7	< 0.01 U	--	< 0.01 U	0.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	538
MW-41	2013 Q4	26.6	< 0.01 U	--	< 0.01 U	0.26	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	490
MW-41	2014 Q2	36.3	< 0.01 U	--	< 0.01 U	0.23	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	511
MW-41	2014 Q4	11.1	< 0.01 U	--	< 0.01 U	0.22	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	462
MW-41	2015 Q3	8.99	< 0.01 U	--	< 0.01 U	0.25 J	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	502
MW-41	2015 Q4	30.3	< 0.01 U	--	< 0.01 U	0.26	--	--	--	< 0.061 U	< 0.061 U	< 0.061 U	< 0.061 U	--	--	--	523
MW-41	2016 Q2	0.183	< 0.005 U	--	--	0.238	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	441
MW-41	2016 Q4	17.9	0.002 J	--	< 0.01 U	0.168	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	485
MW-41	2017 Q2	9.94	< 0.005 U	--	< 0.01 U	0.609	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	461
MW-41	2018 Q1	3.02	< 0.005 U	--	< 0.01 U	0.205	--	--	--	< 0.065 U	< 0.065 U	0.068	< 0.065 U	--	--	--	470
MW-41	2018 Q2	6.47	< 0.005 U	--	< 0.01 UJ	0.214	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	480
MW-41	2019 Q1	4.87	< 0.005 U	--	< 0.01 U	0.221	--	--	--	< 0.019 U	< 0.019 U	< 0.02 U	< 0.02 U	--	--	--	434
MW-41	2019 Q2	10.6	0.001 J	--	< 0.01 UJ	0.23	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	447
MW-41	2019 Q4	2.71	< 0.005 U	--	< 0.01 U	0.202	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	403
MW-41	2020 Q2	5.35	< 0.005 U	--	< 0.01 U	0.385	--	--	--	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	--	--	--	359
MW-41	2020 Q4	8.66	< 0.005 U	--	< 0.01 U	< 0.5 U	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	335
MW-41	2021 Q3	5.82	< 0.005 U	--	< 0.01 U	0.201	--	--	--	< 0.021 U	< 0.021 U	< 0.021 U	< 0.021 U	--	--	--	--
MW-41	2021 Q4	2.95	< 0.005 U	--	< 0.01 U	0.218	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-41	2022 Q2	4.71	< 0.005 U	--	< 0.01 U	0.167	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	284
MW-41	2022 Q4	2	< 0.005 U	--	< 0.01 U	0.19	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	315

Table C-4
East Plant North Yard
Historical Analytical Results Through 2024
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

	Chemical	Aluminum	Cyanide	Cyanide (Free)	Cyanide	Fluoride	PCB-1016 (Aroclor 1016)	PCB-1221 (Aroclor 1221)	PCB-1232 (Aroclor 1232)	PCB-1242 (Aroclor 1242)	PCB-1248 (Aroclor 1248)	PCB-1254 (Aroclor 1254)	PCB-1260 (Aroclor 1260)	PCB-1262 (Aroclor 1262)	PCB-1268 (Aroclor 1268)	PCBs	Sulfate (As SO4)
	CAS No.	7429-90-5	57-12-5	FREE CN	WDCN	16984-48-8	12674-11-2	11104-28-2	11141-16-5	53469-21-9	12672-29-6	11097-69-1	11096-82-5	37324-23-5	11100-14-4	1336-36-3	14808-79-8
	Unit	mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L
Location	Quarter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
East Plant North Yard																	
MW-41	2023 Q2	--	--	< 0.002 U	--	0.232	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	284
MW-41	2023 Q4	--	--	< 0.006 UJ	--	0.234	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	282
MW-41	2024 Q2	--	--	< 0.002 U	--	0.67 J	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	269
MW-41	2024 Q4	--	--	< 0.002 U	--	0.189	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	258
MW-48	2023 Q4	--	--	< 0.00079 U	--	0.22	< 0.053 U	< 0.054 U	< 0.07 U	< 0.072 U	< 0.048 U	< 0.038 U	< 0.044 U	< 0.055 U	< 0.059 U	--	--
MW-48	2023 Q4	--	--	0.031 J	--	0.193	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	138
MW-48	2024 Q2	--	--	< 0.002 U	--	0.169	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	198 J
MW-48	2024 Q4	--	--	< 0.002 U	--	0.208	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	183
MW-49	2023 Q4	--	--	0.031 J	--	1.67	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	132
MW-49	2024 Q2	--	--	< 0.002 U	--	1.23	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	134 J
MW-49	2024 Q4	--	--	< 0.002 U	--	1.26	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	126
MW-50	2023 Q4	--	--	0.038	--	0.373	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	362
MW-50	2024 Q2	--	--	< 0.002 U	--	0.632	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	374 J
MW-50	2024 Q4	--	--	< 0.002 U	--	1.32	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	261
MW-51	2023 Q2	--	--	0.0013 J	--	0.18	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	--	--
MW-51	2023 Q4	--	--	0.038 J	--	0.207	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	278
MW-51	2024 Q2	--	--	< 0.002 U	--	0.157	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	106 J
MW-51	2024 Q4	--	--	< 0.002 U	--	0.143	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	109
MW-52	2023 Q2	--	--	0.0015 J	--	0.14	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	< 0.098 U	--	--
MW-52	2023 Q4	--	--	0.032 J	--	0.207	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	278
MW-52	2024 Q2	--	--	< 0.002 U	--	0.195	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	276 J
MW-52	2024 Q4	--	--	< 0.002 U	--	0.193	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	297
MW-54	2023 Q4	--	--	< 0.006 U	--	0.492	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	185
MW-54	2024 Q2	--	--	< 0.002 U	--	0.626	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	185 J
MW-54	2024 Q4	--	--	< 0.002 U	--	0.413	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	192
MW-55	2023 Q4	--	--	< 0.006 UJ	--	0.306	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	157
MW-55	2024 Q2	--	--	< 0.002 U	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--
MW-55	2024 Q4	--	--	< 0.002 U	--	--	--	--	--	< 0.065 U	< 0.065 U	< 0.065 U	< 0.065 U	--	--	--	--

Notes:
µg/L = micrograms per liter
J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample
mg/L = milligrams per liter
PCB = polychlorinated biphenyl
R = The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
U = The analyte was included in the analysis but was not detected above the reported quantitation limit, or the result is considered non-detect as a consequence of associated blank contamination.
UJ = The analyte was included in the analysis but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
WAD = weak acid dissociable
WDCN = weak dissociable cyanide

Table C-5
East Plant Sample Results at Rectifier Pond
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Collection Date	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
5/7/97	0.09 U	0.2 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.2 U
7/2/97	0.1 U	0.2 U	0.1 U	0.1 U	0.097J	0.1 U	0.1 U	0.097J
8/11/97	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
8/21/97	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
9/20/97	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
9/29/97	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/27/97	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
11/3/97	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
11/7/97	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
December 1997	No samples taken							
January 1998	No samples taken							
February 1998	No samples taken							
March 1998	No samples taken							
April 1998	No samples taken							
May 1998	No samples taken							
6/3/98	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/6/98	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
8/3/98	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
9/16/98	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/6/98	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
11/11/98	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
12/9/98	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
January 1999	No samples taken							
2/23/99	0.065 U	0.065 U	0.065 U	0.065 U	0.068	0.065 U	0.065 U	0.068
2/23/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
2/23/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
3/11/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/22/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
5/10/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
5/27/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
8/26/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/28/99	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/27/00	0.100 U	0.200 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
4/26/00	0.100 U	0.200 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U	0.100 U
7/10/00	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
11/10/00	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
2/9/01	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/26/01	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U
7/10/01	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/2/01	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/2/02	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/2/02	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/2/02	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/19/02	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/7/03	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/1/03	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/1/03	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U

Table C-5
East Plant Sample Results at Rectifier Pond
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Collection Date	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Total PCBs
10/7/03	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/6/04	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/6/04	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/6/04	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/18/04	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	---
1/4/05	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	---
4/5/05	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	---
7/6/05	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	---
10/18/04	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/4/05	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/5/05	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/6/05	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/4/05	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/3/06	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/4/06	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/5/06	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/3/06	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/2/07	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/3/07	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/9/07	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/8/07	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/4/08	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/1/08	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/9/08	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/7/08	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/6/09	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/7/09	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/7/09	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/6/09	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/5/10	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/6/10	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/6/10	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/4/10	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/4/11	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/5/11	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
7/5/11	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/4/11	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
1/24/12	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
4/23/12	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U
10/2/12	---	---	---	0.065 U	0.065 U	0.065 U	0.065 U	0.065 U

Notes:

1. Sampling discontinued per letter from NYSDEC dated January 3, 2023

--- = analysis was not performed

J = estimated

PCB = polychlorinated biphenyl

U = not detected at the value listed

Table C-6
East Plant Field Monitoring
2024 Periodic Review Report for the Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Parameter Unit		ORP mV	pH s.u.	Specific Conductance mS/cm	Temperature ℃	Turbidity NTU
Sample ID	**Date**	**Result**	**Result**	**Result**	**Result**	**Result**
EAST PLANT BMP						
MW-11SR-0624	06/11/2024	132.6	7.37	1.124	12.9	0.02
MW-11SR-1224	12/03/2024	146.1	7.46	1.051	7	7.23
MW-12S-0224	02/09/2024	148.4	7.46	3.02	9.1	7.41
MW-12S-0624	06/12/2024	186.8	7.33	3.302	13.1	5.03
MW-12S-1224	12/04/2024	235	7.39	2.271	7.5	7.81
MW-13S-0624	06/11/2024	236.1	6.83	0.329	11.1	1.52
MW-13S-1224	12/04/2024	211	7.28	4.366	8.9	0.02
MW-14S-0624	06/10/2024	127.6	7.27	1.422	11.6	0.02
MW-14S-1224	12/04/2024	213.6	7.41	1.411	7.9	4.02
MW-15S-87-0624	06/11/2024	222	7.17	0.843	13.7	7.53
MW-15S-87-1224	12/05/2024	132.6	7.13	0.966	8.3	5.19
MW-20-85S-0624	06/12/2024	83.8	11.47	1.682	12.2	20
MW-20-85S-1224	12/04/2024	-46.7	12.22	2.33	6	14.6
MW-22-85S-0624	06/17/2024	91.3	7.22	1.74	12.7	4.82
MW-22-85S-1224	12/11/2024	-30.2	7.32	1.728	8.1	5.6
MW-23-85S-0624	06/11/2024	240.4	6.9	1.306	10.5	42.7
MW-23-85S-1224	12/04/2024	187.6	7.38	1.343	8.7	40.7
MW-30S-0624	06/10/2024	-21	6.78	0.924	12.1	0.02
MW-30S-1224	12/03/2024	25.5	6.82	0.823	7.7	0.02
MW-31SR-0624	06/11/2024	262.5	6.97	0.863	10.7	0.55
MW-31SR-1224	12/04/2024	-70.7	7.88	0.805	8.4	1.93
MW-56-0624	06/11/2024	-35.7	7.1	1.299	12.5	17.8
MW-56-1224	12/04/2024	-47.5	7.07	1.303	9.8	15.5
PZ-44-0624	06/11/2024	-83.4	7.08	2.455	14.2	4
PZ-44-1224	12/04/2024	236.4	7.03	1.67	6.2	41.2
PZ-45-0624	06/11/2024	-54.5	7.09	2.309	15.3	16.5
PZ-45-1224	12/05/2024	156.9	7.41	1.989	7.8	96.3
PZ-46-0624	06/11/2024	28.6	7.17	2.273	16.9	185
PZ-46-1224	12/04/2024	245.7	7.41	1.742	5	52
EAST PLANT LANDFILL						
MW-10S-0324	03/07/2024	171.3	7.45	0.442	6.4	3.64
MW-10S-0624	06/11/2024	236.5	7.01	0.769	12.2	3.15
MW-10S	09/12/2024	--	7.7 HF	--	--	--
MW-10S-0924	09/16/2024	166.7	7.11	0.834	18.7	0.28
MW-10S-1224	12/04/2024	104.7	8.42	0.833	7.4	0.02
MW-39S-0324	03/07/2024	15.1	7.07	0.684	7.1	2.1
MW-39S-0624	06/10/2024	-19.6	6.82	0.897	11.3	1.63
MW-39S-0924	09/16/2024	-57.3	6.7	0.921	17.8	3.11
MW-39S-1224	12/03/2024	-32	6.87	0.939	8.1	0.02
MW-40S-0324	06/04/2024	40.3	7.15	1.267	13.4	4.69
MW-40S-0624	06/10/2024	191.5	6.93	1.356	13.1	7.45
MW-40S-0924	09/17/2024	51.4	7.2	1.131	16.2	0.02
MW-40S-1224	12/04/2024	113.8	7.3	1.163	9.9	0.02
MW-45-0324	03/07/2024	87.4	6.94	1.206	8	1.2
MW-45-0624	06/10/2024	60.8	6.71	1.716	11.5	1.08
MW-45-0924	09/16/2024	12.7	6.57	1.69	16	1.66
MW-45-1224	12/03/2024	51.5	6.88	1.668	8.5	0.02
SLPWETE-0324	03/07/2024	76.5	7.85	0.3335	10.1	0.54
SLPWETE-0624	06/10/2024	162.6	8.68	0.3462	18.9	7.09
SLPWETE-0924	09/17/2024	189	7.67	0.4744	23.7	1.24
SLPWETE-1224	12/04/2024	52.8	7.78	0.517	1.4	16.9
SLPWETW-0324	03/07/2024	-25.8	7.08	0.188	1.7	4.66
SLPWETW-0624	06/10/2024	251.6	7.07	0.2337	17	2.06
SLPWETW-0924	09/17/2024	150.7	7.05	0.1858	22.1	0.93
SLPWETW-1224	12/04/2024	-73.6	7.39	0.448	1.4	10.9
EAST PLANT N. YARD						
FDRAIN-0624	06/11/2024	256.1	8.14	0.93	12.2	0.02
FDRAIN-1224	12/06/2024	297.4	7.38	0.929	21	3.25
MW-16S-0624	06/15/2024	180.5	7.78	1.205	11.7	0.02
MW-16S-1224	12/06/2024	202.2	7.73	1.21	7.9	28.7

Table C-6
East Plant Field Monitoring
2024 Periodic Review Report for the Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Parameter Unit		ORP mV	pH s.u.	Specific Conductance mS/cm	Temperature °C	Turbidity NTU
Sample ID	**Date**	**Result**	**Result**	**Result**	**Result**	**Result**
MW-17S-0624	06/12/2024	-53.1	6.97	0.981	13.6	3.52
MW-17S-1224	12/06/2024	228.8	7.31	1.212	7.1	10.4
MW-18S-0624	06/15/2024	236.2	7.37	1.24	13.5	9.53
MW-18S-1224	12/04/2024	199	7.55	1.08	10.7	0.02
MW-19S-0624	06/13/2024	286.7	6.65	0.801	14.9	0.02
MW-19S-1224	12/06/2024	195.6	7.29	0.877	9.9	0.93
MW-36-0624	06/13/2024	194.9	7.88	2.462	20.1	1750.2
MW-36-1224	12/10/2024	142.1	8.55	2.577	3.4	650
MW-37-0624	06/13/2024	-77.7	7.25	1.111	14	950
MW-37-1224	12/09/2024	-69.8	7.44	1.095	7.1	229
MW-38-0624	06/14/2024	168.3	8.1	0.679	19	142
MW-38-1224	12/11/2024	176.2	8.03	0.605	9.2	420
MW-41-0624	06/12/2024	249.8	7.38	1.118	16.5	337
MW-41-1224	12/09/2024	186.3	9.43	1.101	4.5	217
MW-48-0624	06/18/2024	139.5	7.18	1.533	17.8	14.5
MW-48-1224	12/12/2024	299	7.39	1.43	5.2	220
MW-49-0624	06/17/2024	-68	7.63	0.576	15.8	146
MW-49-1224	12/10/2024	-100.4	7.92	0.569	8.6	64.9
MW-50-0624	06/17/2024	-80.9	7.43	1.767	14.2	2.18
MW-50-1224	12/10/2024	-80.5	7.46	1.704	9.2	0.02
MW-51-0624	06/17/2024	-21.1	7.18	1.173	13.7	107
MW-51-1224	12/12/2024	-65.7	7.29	1.245	8.2	122
MW-52-0624	06/17/2024	-71.2	7.42	1.392	14.7	4.48
MW-52-1224	12/10/2024	209.9	7.48	1.504	8.5	0.02
MW-54-0624	06/17/2024	81.6	7.8	0.745	19.2	33.2
MW-54-1224	12/11/2024	-0.5	7.95	0.805	8.4	36.8
MW-55-0624	06/18/2024	-44	7.06	1.082	16.8	84.5
MW-55-1224	12/11/2024	-61.1	7.14	1.088	9.4	9.74
EAST PLANT PSP						
MW-03S-0624	06/14/2024	259.6	7.9	1.082	13.9	13.5
MW-03S-1224	12/13/2024	228.5	7.81	1.469	10.4	12.8
MW-26S-0624	06/11/2024	160.9	6.96	0.918	13.9	3.23
MW-26S-1224	12/05/2024	-34.4	7.27	0.942	9.5	0.02
MW-27S-0624	06/14/2024	251.2	7.25	8.01	14.4	0.02
MW-27S-1224	12/05/2024	198.4	7.36	7.25	9.1	0.02
MW-28S-0624	06/11/2024	-125.8	7.82	1.037	11.2	2.2
MW-28S-1224	12/06/2024	53.9	8.07	1.052	10.8	0.02
MW-33S-0624	06/12/2024	261.7	7.5	1.84	14.2	1.34
MW-33S-1224	12/10/2024	212.4	7.52	1.703	7.3	0.02
MW-34S-0624	06/14/2024	156.3	7.78	3.101	14.2	0.02
MW-34S-1224	12/12/2024	236.3	7.76	2.915	4.2	8.6
MW-35SR-0624	06/12/2024	221.9	6.61	1.768	12	47.7
MW-35SR-1224	12/12/2024	111.5	6.84	2.205	10.6	3.6
MW-42-0624	06/12/2024	232.7	7.77	3.58	15.4	592
MW-42-1224	12/10/2024	232.9	7.94	3.788	7.4	720
MW-43-0624	06/12/2024	296.5	6.49	1.014	11.4	644
MW-43-1224	12/09/2024	214	6.99	0.875	6.8	168
MW-44-0624	06/12/2024	301.7	6.4	0.989	10.4	5.48
MW-44-1224	12/06/2024	189.6	7.01	0.86	8.8	41.3

Notes:
°C = degrees Celcius
BMP = Black Mud Pond
mS/cm = milliSiemens per centimeter
mV = millivolt
NTU = nephelometric turbidity unit
ORP = oxidation reduction potential
PSP = Potliner Storage Pad
s.u. = standard unit

Table C-7
East Plant Landfill Groundwater Extraction System Sampling Results
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	EW-01		EW-02		EW-04		EW-05		EW-06	
	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)
11/12/2024	0.26	0.0067	0.26	0.0225	0.21	0.079	0.12	0.051	0.79	0.0696
8/13/2024	0.25	0.0065	1.47	0.073	0.21	0.0884	0.11	0.0585	0.61	0.397
5/14/2024	0.27	0.0058	1.93	0.0641	0.41	0.0858	0.11	0.0454	0.83	0.461
2/13/2024	0.28	0.0051	1.59	0.0489	0.21	0.0921	0.12	0.0579	0.62	0.436
11/14/2023	0.27	0.01	0.29	0.0249	0.22	0.0871	0.12	0.0606	0.65	0.867
8/15/2023	0.29	0.008	0.33	0.024	0.23	0.0744	0.14	0.0498	0.95	0.59
5/9/2023	0.27	0.0070	0.35	0.0279	0.22	0.0933	0.11	0.0557	0.64	0.698
2/14/2023	0.34	0.0129	1.61	0.0464	0.31	0.13	0.14	0.0879	0.64	0.655
12/1/2022	NS	NS	NS	NS	NS	NS	0.1 U	0.034	0.58	0.80
11/15/2022	0.28	0.05 U	0.30	0.0321	0.17	0.0777	NS	NS	NS	NS
8/9/2022	0.27	0.005	0.31	0.0255	0.22	0.0844	0.1 U	0.0491	0.94	0.413
5/10/2022	0.21	0.0074	0.30	0.0250	0.21	0.0805	0.1 U	0.0461	0.66	0.0354
2/15/2022	0.27	0.0085	0.34	0.0307	0.22	0.0861	0.12	0.0573	0.77	0.434
11/16/2021	0.28	0.0075	1.26	0.0356	0.23	0.0911	0.13	0.0625	0.63	0.503
8/10/2021	0.36	0.005 U	0.53	0.0246	0.52	0.0707	0.43	0.0419	0.89	0.386
5/5/2021	0.28	0.0062	1.23	0.0461	0.24	0.0962	0.13	0.0688	0.66	0.456
2/9/2021	0.25	0.005 U	0.31	0.039	0.3	0.0673	0.3	0.0527	0.69	0.644
11/19/2020	0.42	0.0091	0.34	0.078	0.32	0.102	0.22	0.0637	0.61	0.636
8/10/2020	0.12	0.0055	0.1 U	0.0325	0.1 U	0.0978	0.1 U	0.0571	0.4	0.564
5/14/2020	0.27	0.005 U	0.28	0.0504	0.24	0.144	0.1 U	0.0607	0.86	0.513
2/12/2020	0.38	0.01 U	0.39	0.0298	0.35	0.0915	0.13	0.0439	0.99	0.723
12/11/2018	0.36	0.01 U	1.57	0.039	0.33	0.109	0.21	0.034	0.51	0.723
8/14/2018	0.26	0.01 U	0.340	0.021	0.17	0.088	0.14	0.041	0.75	0.638
5/8/2018	0.35	0.01 U	2.050	0.033	0.300	0.100	0.1 U	0.034	0.52	0.643
2/22/2018	0.24	0.01 U	0.86	0.023	0.16	0.103	0.1	0.044	0.43	0.719
11/21/2017	0.23	0.01 U	1.57	0.067	0.16	0.103	0.11	0.041	0.34	0.684
8/8/2017	0.26	0.01 U	NS	NS	0.2	0.101	0.12	0.036	0.71	0.606
5/9-6/15/2017	0.26	0.01 U	0.490	0.024	0.170	0.096	0.11	0.028	0.29	0.574
3/28/2017	0.25	0.01 U	NS	NS	0.16	0.104	0.12	0.033	0.57	0.681
11/22/2016	0.31	0.01 U	1.1	0.053	0.23	0.113	0.15	0.034	0.29	0.686
8/9/2016	0.24	0.01 U	NS	NS	0.19	0.104	0.12	0.032	0.64	0.586
5/11/2016	0.27	0.01 U	NS	NS	NS	NS	0.13	0.032	0.57	0.54
2/10/2016	0.32	0.01 U	0.96	0.040	0.21	0.106	0.15	0.029	0.36	0.556
11/11/2015	0.310	0.01 U	NS	NS	0.200	0.084	0.140	0.030	0.290	0.578
8/12/2015	0.290	0.01 U	1.630	0.071	0.190	0.097	NS	NS	0.310	0.475
6/17/2015	NS	NS	NS	NS	0.240	0.098	NS	NS	NS	NS
5/13/2015	0.250	0.035	0.280	0.01 U	NS	NS	NS	NS	0.230	0.098
11/14/2014	0.220	0.01 U	0.250	0.040	0.110	0.150	0.100	0.027	0.510	0.541
8/12/2014	0.240	0.01 U	NS	NS	0.130	0.098	0.140	0.027	0.460	0.477
5/19/2014	0.260	0.01 U	NS	NS	0.210	0.102	0.150	0.024	0.210	0.472
2/11/2014	0.280	0.01 U	NS	NS	0.230	0.112	0.160	0.025	0.250	0.523
11/13/2013	0.27	0.010	---	---	0.23	0.12	0.18	0.031	0.24	0.451
10/8/2013	0.27	0.010	---	---	0.270	0.124	0.23	0.028	0.25	0.512
9/10/2013	0.25	0.010	---	---	0.19	0.106	0.16	0.018	0.28	0.475
8/13/2013	0.290	0.010	---	---	0.250	0.114	*0.43* [1.]	*0.449* [1.]	*0.27* [1.]	*0.021* [1.]
7/10/2013	0.280	0.010	---	---	0.280	0.092	0.210	0.019	0.25	0.445
6/12/2013	0.160	0.010	---	---	0.260	0.142	0.210	0.020	0.250	0.418
5/14/2013	0.230	0.010	---	---	0.160	0.096	0.160	0.023	0.180	0.405
4/9/2013	0.220	0.010	---	---	0.140	0.090	0.200	0.033	0.150	0.420

Table C-7
East Plant Landfill Groundwater Extraction System Sampling Results
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	EW-01		EW-02		EW-04		EW-05		EW-06	
	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)	Fluoride (mg/L)	Total Cyanide (mg/L)
3/12/2013	0.290	0.010	---	---	0.170	0.102	0.250	0.029	0.260	0.418
2/12/2013	0.310	0.010	---	---	0.270	0.124	0.350	0.041	0.240	0.446
1/8/2013	0.250	0.010	0.150	0.036	0.310	0.164	0.490	0.037	0.270	0.426

Notes:

--- = Pump was broken, no measurement taken

1. Due to the inconsistancy of results, it is anticipated that the lab mislabeled the samples during testing; these results and the results for each EW should be switched

mg/L = milligrams per liter

NS = not sampled

U = not detected at the value listed

Appendix D Statistical Analysis – Post-Closure Mann Kendall Trends

Appendix D
Statistical Analysis - Mann-Kendall Analysis
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Area	Location	Parameter	Unit	Post-Closure				
				Number of Samples	Number of Detections	Number of Non-Detects	p-value	Trend
BMP	MW-11SR	Cyanide	L	18	4	14	--	Greater than 50% ND
BMP	MW-11SR	Fluoride	L	22	21	1	0.651	No Trend
BMP	MW-11SR	Sulfate (As SO4)	L	22	22	0	0.018	Decreasing
BMP	MW-12S	Cyanide	L	21	21	0	0.115	Stable
BMP	MW-12S	Fluoride	L	22	22	0	0.030	Decreasing
BMP	MW-12S	Sulfate (As SO4)	L	22	22	0	1.000	Stable
BMP	MW-13S	Cyanide	L	18	17	1	<0.001	Decreasing
BMP	MW-13S	Fluoride	L	22	21	1	0.323	Stable
BMP	MW-13S	Sulfate (As SO4)	L	22	22	0	0.015	Decreasing
BMP	MW-14S	Cyanide	L	18	1	17	--	Greater than 50% ND
BMP	MW-14S	Fluoride	L	22	22	0	0.481	Stable
BMP	MW-14S	Sulfate (As SO4)	L	22	22	0	0.204	Stable
BMP	MW-15S-87	Cyanide	L	18	2	16	--	Greater than 50% ND
BMP	MW-15S-87	Fluoride	L	21	21	0	<0.001	Increasing
BMP	MW-15S-87	Sulfate (As SO4)	L	21	21	0	0.174	Stable
BMP	MW-20-85-S	Cyanide	L	18	0	18	--	Greater than 50% ND
BMP	MW-20-85-S	Fluoride	L	22	20	2	0.933	Stable
BMP	MW-20-85-S	Sulfate (As SO4)	L	22	22	0	0.010	Increasing
BMP	MW-22-85-S	Cyanide	L	18	4	14	--	Greater than 50% ND
BMP	MW-22-85-S	Fluoride	L	22	21	1	0.310	Stable
BMP	MW-22-85-S	Sulfate (As SO4)	L	22	22	0	0.012	Decreasing
BMP	MW-23-85-S	Cyanide	L	18	1	17	--	Greater than 50% ND
BMP	MW-23-85-S	Fluoride	L	22	21	1	0.843	Stable
BMP	MW-23-85-S	Sulfate (As SO4)	L	22	22	0	0.014	Increasing
BMP	MW-30S	Cyanide	L	17	2	15	--	Greater than 50% ND
BMP	MW-30S	Fluoride	L	21	21	0	0.037	Decreasing
BMP	MW-30S	Sulfate (As SO4)	L	21	21	0	0.695	Stable
BMP	MW-31SR	Cyanide	L	18	12	6	0.266	Stable
BMP	MW-31SR	Fluoride	L	22	22	0	0.612	Stable
BMP	MW-31SR	Sulfate (As SO4)	L	22	22	0	0.799	Stable
BMP	PZ-44	Cyanide	L	18	2	16	--	Greater than 50% ND
BMP	PZ-44	Fluoride	L	21	21	0	0.381	Stable
BMP	PZ-44	Sulfate (As SO4)	L	21	21	0	0.506	Stable
BMP	PZ-45	Cyanide	L	16	3	13	--	Greater than 50% ND
BMP	PZ-45	Fluoride	L	22	22	0	0.778	Stable
BMP	PZ-45	Sulfate (As SO4)	L	22	22	0	0.572	Stable
BMP	PZ-46	Cyanide	L	4	1	3	--	Greater than 50% ND
BMP	PZ-46	Fluoride	L	8	8	0	0.711	Stable
BMP	PZ-46	Sulfate (As SO4)	L	7	7	0	0.230	Stable
ILF	MW-10S	Cyanide	L	35	3	32	--	Greater than 50% ND
ILF	MW-10S	Fluoride	L	44	42	2	0.430	Stable
ILF	MW-10S	Sulfate (As SO4)	L	44	44	0	<0.001	Decreasing

Appendix D
Statistical Analysis - Mann-Kendall Analysis
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Area	Location	Parameter	Unit	Post-Closure				
				Number of Samples	Number of Detections	Number of Non-Detects	p-value	Trend
ILF	MW-39S	Cyanide	L	35	35	0	<0.001	Decreasing
ILF	MW-39S	Fluoride	L	44	44	0	<0.001	Increasing
ILF	MW-39S	Sulfate (As SO4)	L	44	44	0	0.466	Stable
ILF	MW-40S	Cyanide	L	34	34	0	<0.001	Decreasing
ILF	MW-40S	Fluoride	L	43	43	0	0.761	Stable
ILF	MW-40S	Sulfate (As SO4)	L	43	43	0	0.134	Stable
ILF	MW-45	Cyanide	L	35	35	0	<0.001	Decreasing
ILF	MW-45	Fluoride	L	44	42	2	0.091	Probably Decreasing
ILF	MW-45	Sulfate (As SO4)	L	44	44	0	0.014	Increasing
ILF	SLPWETE	Cyanide	L	13	2	11	--	Greater than 50% ND
ILF	SLPWETE	Fluoride	L	21	20	1	0.432	Stable
ILF	SLPWETE	Sulfate (As SO4)	L	21	21	0	0.976	No Trend
ILF	SLPWETW	Cyanide	L	12	4	8	--	Greater than 50% ND
ILF	SLPWETW	Fluoride	L	20	20	0	0.035	Decreasing
ILF	SLPWETW	Sulfate (As SO4)	L	20	19	1	0.098	Probably Decreasing
NY	FDRAIN1	Cyanide	L	18	17	1	0.544	Stable
NY	FDRAIN1	Fluoride	L	22	22	0	0.224	Stable
NY	FDRAIN1	Sulfate (As SO4)	L	21	21	0	0.007	Decreasing
NY	MW-16S	Cyanide	L	17	10	7	0.032	Decreasing
NY	MW-16S	Fluoride	L	22	22	0	0.159	Stable
NY	MW-16S	Sulfate (As SO4)	L	22	22	0	0.096	Probably Decreasing
NY	MW-17S	Cyanide	L	17	3	14	--	Greater than 50% ND
NY	MW-17S	Fluoride	L	21	21	0	0.049	Increasing
NY	MW-17S	Sulfate (As SO4)	L	21	21	0	0.832	Stable
NY	MW-18S	Cyanide	L	19	19	0	0.114	Stable
NY	MW-18S	Fluoride	L	22	22	0	<0.001	Decreasing
NY	MW-18S	Sulfate (As SO4)	L	22	22	0	0.018	Decreasing
NY	MW-19S	Cyanide	L	18	3	15	--	Greater than 50% ND
NY	MW-19S	Fluoride	L	22	22	0	0.002	Decreasing
NY	MW-19S	Sulfate (As SO4)	L	22	22	0	<0.001	Decreasing
NY	MW-36	Cyanide	L	18	2	16	--	Greater than 50% ND
NY	MW-36	Fluoride	L	22	22	0	0.024	Decreasing
NY	MW-36	Sulfate (As SO4)	L	22	22	0	<0.001	Decreasing
NY	MW-37	Cyanide	L	18	1	17	--	Greater than 50% ND
NY	MW-37	Fluoride	L	22	21	1	0.652	No Trend
NY	MW-37	Sulfate (As SO4)	L	22	22	0	0.497	Stable
NY	MW-38	Cyanide	L	18	1	17	--	Greater than 50% ND
NY	MW-38	Fluoride	L	22	22	0	0.977	Stable
NY	MW-38	Sulfate (As SO4)	L	22	22	0	0.032	Increasing
NY	MW-41	Cyanide	L	18	2	16	--	Greater than 50% ND
NY	MW-41	Fluoride	L	22	21	1	0.463	Stable
NY	MW-41	Sulfate (As SO4)	L	22	22	0	<0.001	Decreasing

Appendix D
Statistical Analysis - Mann-Kendall Analysis
2024 Periodic Review Report for the Reynolds Metals Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Area	Location	Parameter	Unit	Post-Closure				
				Number of Samples	Number of Detections	Number of Non-Detects	p-value	Trend
PSP	MW-03S	Cyanide	L	13	13	0	0.017	Decreasing
PSP	MW-03S	Fluoride	L	16	16	0	0.007	Decreasing
PSP	MW-03S	Sulfate (As SO4)	L	16	16	0	0.005	Decreasing
PSP	MW-26S	Cyanide	L	18	3	15	--	Greater than 50% ND
PSP	MW-26S	Fluoride	L	22	22	0	0.014	Decreasing
PSP	MW-26S	Sulfate (As SO4)	L	22	22	0	0.003	Decreasing
PSP	MW-27S	Cyanide	L	17	17	0	<0.001	Decreasing
PSP	MW-27S	Fluoride	L	22	21	1	0.195	Stable
PSP	MW-27S	Sulfate (As SO4)	L	22	22	0	0.015	Increasing
PSP	MW-28S	Cyanide	L	17	17	0	0.387	Stable
PSP	MW-28S	Fluoride	L	22	22	0	0.481	Stable
PSP	MW-28S	Sulfate (As SO4)	L	22	22	0	0.018	Decreasing
PSP	MW-33S	Cyanide	L	17	1	16	--	Greater than 50% ND
PSP	MW-34S	Cyanide	L	18	18	0	0.471	Stable
PSP	MW-35SR	Cyanide	L	18	2	16	--	Greater than 50% ND
PSP	MW-35SR	Fluoride	L	22	22	0	0.498	Stable
PSP	MW-35SR	Sulfate (As SO4)	L	22	22	0	0.039	Increasing
PSP	MW-42	Cyanide	L	18	17	1	0.010	Decreasing
PSP	MW-42	Fluoride	L	22	22	0	0.135	Stable
PSP	MW-42	Sulfate (As SO4)	L	22	22	0	0.004	Decreasing
PSP	MW-43	Cyanide	L	17	1	16	--	Greater than 50% ND
PSP	MW-43	Fluoride	L	22	21	1	0.323	Stable
PSP	MW-43	Sulfate (As SO4)	L	22	22	0	0.003	Decreasing
PSP	MW-44	Cyanide	L	18	0	18	--	Greater than 50% ND
PSP	MW-44	Fluoride	L	22	22	0	0.652	Stable
PSP	MW-44	Sulfate (As SO4)	L	22	22	0	0.012	Decreasing

Notes:
BMP = Black Mud Pond
ILF = Industrial Landfill
ND = non-detect
NY = North Yard
PSP = Potliner Storage Pad
mg/L = milligrams per liter

Appendix E Data Quality Assessments

Memorandum

To: *Jason Mibroda*

From: *Paul Rodrigue*

Date: *July 18, 2024*

Subject: *Reynolds Metals Company, LLC – NYSDEC Site Code #645009*
Data Quality Assessment – March 2024

This memorandum presents the data quality assessment for the March 2024 quarterly sampling round for the Massena East Plant. Samples were collected on March 7, 2024, and analyzed for polychlorinated biphenyls (PCBs), and conventional inorganics (free cyanide, fluoride, and sulfate). MW-40S was not able to be accessed for sampling in March. This monitoring well was later sampled on June 4, 2024; the results of the June sampling are included in this assessment.

Laboratory quality control data associated with these samples were reviewed in accordance with the *Quality Assurance Project Plan* (QAPP) (CDM, March 2008) and United States Environmental Protection Agency (USEPA) Region II Contract Laboratory Program (CLP) data validation criteria as referenced in *Validating PCB Compounds PCBs by Gas Chromatography SW-846 Method 8082A* (SOP No. HW-45, Revision No. 1, October 2006) and in *Validation of Metals for the (CLP) Based on SOW ILMO5.3* (SOP No. HW-2. Revision No. 13, September 2006). All analyses were performed by Alpha Analytical in Westborough, Massachusetts except free cyanide which was subcontracted by Alpha Analytical to Eurofins in Pittsburgh, Pennsylvania.

The intent of this review is to provide a general assessment of the overall quality of the data packages based on the review of the following information:

- Field and laboratory method blanks
- Surrogate spike recovery
- Field duplicate precision
- Matrix spike/matrix spike duplicate (MS/MSD) samples
- Laboratory control sample/laboratory control sample duplicates (LCS/LCSD)
- Sample holding time data
- Sample receipt conditions

All applicable data were evaluated and are summarized below. Field quality assurance sample results (field blanks and duplicate samples) were also evaluated. Analytical results, hold times and field quality assurance data are summarized in Tables 1 through 4.

PCB Analysis

One field blank sample was collected on each day of sampling (MW-1201-0324FBW and MW-1202-0324FBW). PCB Aroclors were not detected in the field blank samples. In addition, the laboratory blank sample analyzed with the field samples was non-detect for Aroclors. No qualification is required.

PCB analysis surrogate spike recovery data were reviewed. Tetrachloro-m-xylene (TCX) and decachlorobiphenyl (DCB) were the compounds used for the surrogate spike standards. The QAPP specifies that at least one surrogate is recovered within range (30 to 150 percent), with both surrogate recoveries greater than 10 percent. All surrogate recoveries were within the acceptable range except for the under-recovery of DCB in sample MW-1202-0324FBW. No qualification is required since TCX was recovered in range and all recoveries were greater than 10 percent.

A field duplicate sample was collected at MW-39S (MW-1200-0324BD). All Aroclors were non-detect in both the parent and duplicate sample. No qualification is required.

Sample MW-10S-0324 was analyzed as a MS/MSD sample. The QAPP specifies that MS/MSD recoveries be within the range of 29 to 135 percent, with a relative percent difference (RPD) of less than 30 percent between the spiked pair. The MS and MSD samples were spiked with Aroclor 1016 and Aroclor 1260. Recoveries and precision between the spiked pair were acceptable. No qualification is required.

The QAPP specifies a recovery range of 50 to 150 percent for compounds in a LCS/LCSD. Recovery and precision for Aroclor 1260 was within the acceptable range in the two LCS/LCSD samples; no qualification is required.

USEPA Region II guidance specifies a holding time of up to 365 days beyond the verified time of sample receipt (VTSR) for sample extraction and 40 days from the time of sample extraction to analysis. In addition, the VTSR must be within 48 hours of sample collection. Table 2 presents a compilation of the relevant information regarding PCB analysis holding times. No qualification is required.

The condition of the samples upon receipt at the laboratory was reviewed. All samples were received at temperatures below 10°C. No qualification is required.

Based on the results of this assessment, the PCB results for the March 2024 quarterly sampling event can be used without qualification.

Conventional Analysis

Samples were analyzed for free cyanide, fluoride, and sulfate.

One field blank sample was collected during each day of sampling (MW-1201-0324FBW and MW-1202-0324FBW). Free cyanide and fluoride were not detected in the field blank samples. Sulfate was detected in MW-1202-0324FBW at a concentration above the method detection limit (MDL), but below the laboratory reporting limit. Additionally, the method blanks analyzed by the laboratories with the field samples were non-detect for free cyanide and fluoride. Sulfate was detected above the MDL and below the reporting limit in one method blank associated with the analysis of MW-40S-0324. No qualification is required due to the field and method blank detection since the associated field sample had a detected sulfate concentration above the reporting limit.

A field duplicate sample was collected at MW-39S (MW-1200-0324BD). The RPD quantified between the parent and duplicate sample collected at the monitoring well was acceptable for all conventional parameters. Free cyanide was detected in both samples at less than five times the reporting limit. In such case, the absolute difference is used to determine qualification. No quantification is required as the absolute difference between these results are below the reporting limit.

MS/MSD analysis was requested on MW-10S-0324. The QAPP specifies acceptable MS/MSD recovery limits as 80 to 120 percent for fluoride and sulfate. The QAPP does not specify MS/MSD recovery limits for free cyanide; therefore, the laboratory-specified recovery limits were used to determine the need for qualification. All recoveries were acceptable with some exceptions. Sulfate was under-recovered in the MS and MSD at 71 percent and 0 percent, respectively. In this case, the native sample concentration was more than four times the spike amount, therefore the out-of-range recoveries are disregarded. MS and MSD recoveries were below the laboratory limits of 82 to 130 percent for free cyanide for MW-10S-0324 at 78 and 79 percent, respectively. Consequently, the free cyanide results for MW-10S-0324 and SLPWETE-0324 are qualified as estimated nondetect (“UJ”) and the free cyanide result for MW-45-0324 is qualified as estimated (“J”).

All LCS recoveries for conventional were acceptable. No qualification is required.

The QAPP specifies holding times for conventional inorganic parameters beyond the VTSR. The VTSR must be within 48 hours of sample collection. Table 2 presents a compilation of the relevant information regarding conventional parameter analysis holding times. All hold time requirements were met. No qualification is required.

Sample receipt conditions were reviewed. All samples were received within the QAPP-specified temperature limits. No qualification is required.

Conventional results for the March 2024 quarterly sampling round can be used as reported by the laboratory with the qualifications noted above.

PR:tmp

Attachments

cc: Craig Peets, Alcoa
Jessica Roche, Alcoa
Matthew Kraeuter, Alcoa

Sample ID Sample Date Parameter ID	Unit	MW-10S-0324 3/7/24	MW-39S-0324 3/7/24	MW-39S-0324D 3/7/24	MW-40S-0324 6/4/24	MW-45-0324 3/7/24	SLPWETE-0324 3/7/24	SLPWETW-0324 3/7/24
Field Parameters								
pH	SU	7.45	7.07	---	7.15	6.94	7.85	7.08
Temperature	deg C	6.4	7.1	---	13.4	8	10.1	1.7
Specific Conductance	mS/cm	0.442	0.684	---	1.267	1.206	0.3335	0.188
Turbidity	NTU	3.64	2.1	---	4.69	1.2	0.54	4.66
Redox Potential	mVolt	171.3	15.1	---	40.3	87.4	76.5	-25.8
Conventionals								
Cyanide, Free	mg/L	0.002UJ	0.0017J	0.0015J	0.002U	0.011J	0.002UJ	0.00092J
Fluoride	mg/L	0.199	2.48	2.51	0.22	0.42	2.67	0.703
Sulfate	mg/L	71.4	211	213	58.5	510	6.43	5.92
PCBs								
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Key:
U = Nondetect
J = Estimated
UJ = Estimated nondetect

Sample ID	Sample Date	VTSR[1]	Days	Cyanide, Free		Fluoride		Sulfate	
				Target - 12 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days
MW-10S-0324	3/7/24	3/8/24	1	3/15/24	7	3/12/24	4	3/12/24	4
MW-1201-0324FBW	3/7/24	3/8/24	1	3/15/24	7	3/12/24	4	3/12/24	4
MW-39S-0324	3/7/24	3/8/24	1	3/15/24	7	3/12/24	4	3/12/24	4
MW-39S-0324D	3/7/24	3/8/24	1	3/15/24	7	3/12/24	4	3/12/24	4
MW-45-0324	3/7/24	3/8/24	1	3/15/24	7	3/12/24	4	3/12/24	4
SLPWETE-0324	3/7/24	3/8/24	1	3/15/24	7	3/12/24	4	3/12/24	4
SLPWETW-0324	3/7/24	3/8/24	1	3/15/24	7	3/12/24	4	3/12/24	4
MW-40S-0324	6/4/24	6/6/24	2	6/11/24	5	6/6/24	0	6/6/24	0
MW-1202-0324FBW	6/4/24	6/6/24	2	6/11/24		6/6/24	0	6/6/24	0

Key:

1. VTSR = Verified time of sample receipt; date shown is the VTSR at Alpha Analytical

Table 2
East Plant
Summary of Sample Hold Times

Sample ID Sample Date Parameter ID	Unit	MW-1201-0324FBW 3/7/24	MW-1202-0324FBW 6/4/24
Conventionals			
Cyanide, Free	mg/L	0.002U	0.002U
Fluoride	mg/L	0.05U	0.05U
Sulfate	mg/L	1U	0.469J
PCBs			
Aroclor 1242	µg/L	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U

Key:
U = Nondetect

Sample ID Sample Location Sample Date Parameter ID	Unit	Original Sample MW-39S-0324 MW-39S 3/7/24	Duplicate Sample MW-1200-0324BD MW-39S 3/7/24	Relative Percent Difference[1,2] %
Conventionals				
Cyanide, Free	mg/L	0.0017J	0.0015J	---[3]
Fluoride	mg/L	2.48	2.51	1.2
Sulfate	mg/L	211	213	0.9
PCBs				
Aroclor 1242	µg/L	0.065U	0.065U	---
Aroclor 1248	µg/L	0.065U	0.065U	---
Aroclor 1254	µg/L	0.065U	0.065U	---
Aroclor 1260	µg/L	0.065U	0.065U	---

Notes:

1. Precision is evaluated by calculating the relative percent difference (RPD) using the following formula:

$$| 2 * (X1 - X2) / (X1 + X2) * 100 |$$

where X1 is the original sample value and X2 is the duplicate sample value.

2. --- = RPD not calculated for nondetect parameters.

3. When one or both results are less than five times the reporting limit, the absolute difference is used to determine qualification.

Key:

U = Nondetect

J = Estimated

Memorandum

To: *Robyn Gross*

From: *Amy E. Picunas, P.E., PMP*

Date: *December 17, 2024*

Subject: *Reynolds Metals Company, LLC – NYSDEC Site Code #645009*
Data Quality Assessment – June 2024

This memorandum presents the data quality assessment for the June 2024 quarterly sampling round for the Reynolds Massena Plant. Samples were collected between June 10 and June 18, 2024, and analyzed for polychlorinated biphenyls (PCBs), and conventional inorganics (free cyanide, fluoride, and sulfate).

Laboratory quality control data associated with these samples were reviewed in accordance with the *Quality Assurance Project Plan* (QAPP) (CDM Smith 2008) and United States Environmental Protection Agency (USEPA) Region II Contract Laboratory Program (CLP) data validation criteria as referenced in *Validating PCB Compounds PCBs by Gas Chromatography SW-846 Method 8082A* (SOP No. HW-45, Revision No. 1, October 2006) and in *Validation of Metals for the (CLP) Based on SOW ILMO5.3* (SOP No. HW-2. Revision No. 13, September 2006). All analyses were performed by Alpha Analytical in Westborough, Massachusetts except free cyanide which was analyzed by Eurofins in Pittsburgh, Pennsylvania.

The intent of this review is to provide a general assessment of the overall quality of the data packages based on the review of the following information:

- Field and laboratory method blanks
- Surrogate spike recovery
- Field duplicate precision
- Matrix spike/matrix spike duplicate (MS/MSD) samples
- Laboratory control sample/laboratory control sample duplicates (LCS/LCSD)
- Sample holding time data
- Sample receipt conditions

All applicable data were evaluated and are summarized below. Field quality assurance sample results (field blanks and duplicate samples) were also evaluated. Analytical results, hold times and field quality assurance data are summarized in Tables 1 through 4.

PCB Analysis

One field blank sample was collected on each day of sampling (MW-1207-0624FBW through MW-1214-0624FBW). PCB Aroclors were not detected in the field blank samples. In addition, the laboratory blank samples analyzed with the field samples were non-detect for Aroclors. No qualification is required.

PCB analysis surrogate spike recovery data were reviewed. Tetrachloro-m-xylene (TCX) and decachlorobiphenyl (DCB) were the compounds used for the surrogate spike standards. The QAPP specifies that at least one surrogate is recovered within range (30 to 150 percent), with both surrogate recoveries greater than 10 percent. All surrogate recoveries were within the acceptable range except for under-recoveries of DCB in samples MW-36-0624, MW-37-0624, MW-41-0624, MW-42-0624, and SLPWETE-0624. In each case TCX was recovered in range and all recoveries were greater than 10 percent. No qualification is required.

Field duplicate samples were collected at MW-11SR (MW-1206-0624BD), MW-14S (MW-1205-0624BD), and MW-37 (MW-1219-0624BD). All Aroclors were non-detect in both the parent and duplicate samples. No qualification is required.

Samples MW-10S-0624, MW-12S-0624, and MW-36-0624 were analyzed as MS/MSD samples. The QAPP specifies that MS/MSD recoveries be within the range of 29 to 135 percent, with a relative percent difference (RPD) of less than 30 percent between the spiked pair. The MS and MSD samples were spiked with Aroclor 1016 and Aroclor 1260. Recoveries and precision between the spiked pairs were acceptable. No qualification is required.

The QAPP specifies a recovery range of 50 to 150 percent for compounds in an LCS/LCSD. Recovery and precision for Aroclor 1260 was within the acceptable range in the LCS/LCSD samples; no qualification is required.

USEPA Region II guidance specifies a holding time of up to 365 days beyond the verified time of sample receipt (VTSR) for sample extraction and 40 days from the time of sample extraction to analysis. Table 2 presents a compilation of the relevant information regarding PCB analysis holding times. No qualification is required.

The condition of the samples upon receipt at the laboratory was reviewed. All samples were received at temperatures below 10°C. No qualification is required.

Based on the results of this assessment, the PCB results for the June 2024 quarterly sampling event can be used without qualification.

Conventional Analysis

Samples were analyzed for free cyanide, fluoride, and sulfate.

One field blank sample was collected on each day of sampling (MW-1207-0624FBW through MW-1214-0624FBW). Fluoride and sulfate were not detected in the field blank samples. Free cyanide was detected in MW-1213-0624FBW at a concentration above the method detection limit (MDL), but below the reporting limit. No qualification is required since the detection was below the reporting limit. Additionally, the method blanks analyzed by the laboratories with the field samples were non-detect for free cyanide, fluoride, and sulfate with one exception. Free cyanide was detected in one method blank at a concentration above the MDL, but below the reporting limit. No qualification is required since free cyanide was not detected in any associated field samples.

Field duplicate samples were collected at MW-11SR (MW-1206-0624BD), MW-14S (MW-1205-0624BD), and MW-37 (MW-1219-0624BD). The RPD quantified between the parent and duplicate samples collected at each monitoring well was acceptable for all conventional parameters. No qualification is required.

MS/MSD analysis was requested on MW-10S-0624, MW-12S-0624, and MW-36-0624. The laboratories also performed MS analyses for fluoride and sulfate on MW-39S-0624, MW-17S-0624, MW-16S-0624, and MW-49-0624, and for free cyanide on MW-35SR-0624 and MW-27S-0624. The QAPP specifies acceptable MS/MSD recovery limits as 80 to 120 percent for fluoride and sulfate. The QAPP does not specify MS/MSD recovery limits for free cyanide; therefore, the laboratory-specified recovery limits were used to determine the need for qualification. All recoveries were acceptable with some exceptions. Sulfate was under-recovered in MW-12S-0624 and MW-49-0624 at 62 percent and 74 percent, respectively. Additionally, fluoride was under-recovered in MW-17S-0624 at 78 percent. Consequently, the following samples have sulfate results qualified as estimated ("J"): MW-31SR-0624, MW-44-0624, MW-28S-0624, MW-26S-0624, MW-20-85S-0624, MW-15S-87-0624, MW-12S-0624, MW-22-85S-0624, MW-48-0624, MW-49-0624, MW-50-0624, MW-51-0624, MW-52-0624, and MW-54-0624. Additionally, the following have fluoride results qualified as estimated ("J"): MW-17S-0624, MW-19S-0624, MW-41-0624, MW-42-0624, MW-43-0624, and MW-35SR-0624.

All LCS recoveries for conventional were acceptable. No qualification is required.

The QAPP specifies holding times for conventional inorganic parameters beyond the VTSR. Table 2 presents a compilation of the relevant information regarding conventional parameter analysis holding times. All hold time requirements were met. No qualification is required.

Sample receipt conditions were reviewed. All samples were received within the QAPP-specified temperature limits. No qualification is required.

Conventional results for the June 2024 quarterly sampling round can be used as reported by the laboratory with the qualifications noted above.

Summary

Based on a review of the data, the following qualifications were made to the June 2024 quarterly sampling event:

Due to MS/MSD under-recovery, the following samples have sulfate results qualified as estimated ("J"): MW-31SR-0624, MW-44-0624, MW-28S-0624, MW-26S-0624, MW-20-85S-0624, MW-15S-87-0624, MW-12S-0624, MW-22-85S-0624, MW-48-0624, MW-49-0624, MW-50-0624, MW-51-0624, MW-52-0624, and MW-54-0624.

- Due to MS/MSD under-recovery, the following have fluoride results qualified as estimated ("J"): MW-17S-0624, MW-19S-0624, MW-41-0624, MW-42-0624, MW-43-0624, and MW-35SR-0624.

AR:tmp

Attachments

cc: Craig Peets, Alcoa
Jessica Roche, Alcoa
pw:\\1902\80599\02 Project Information\03 Data\40 Field Data\2024 Database\June\24060

Sample ID Sample Date Parameter ID	Unit	FDRAIN-0624 6/11/24	MW-03S-0624 6/14/24	MW-10S-0624 6/11/24	MW-11SR-0624 6/11/24	MW-11SR-0624D 6/11/24	MW-12S-0624 6/12/24	MW-13S-0624 6/11/24	MW-14S-0624 6/10/24	MW-14S-0624D 6/10/24
Field Parameters										
pH	SU	8.14	7.9	7.01	7.37	---	7.33	6.83	7.27	---
Temperature	deg C	12.2	13.9	12.2	12.9	---	13.1	11.1	11.6	---
Specific Conductance	mS/cm	0.93	1.082	0.769	1.124	---	3.302	0.329	1.422	---
Turbidity	NTU	0.02	13.5	3.15	0.02	---	5.03	1.52	0.02	---
Oxidation Reduction Potential	mVolt	256.1	259.6	236.5	132.6	---	186.8	236.1	127.6	---
Dissolved Oxygen	mg/L	52.5	41.1	72	38.1	---	46	68.6	72.7	---
Conventionals										
Free Cyanide	mg/L	0.0012J	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	19.4	8.42	0.614	0.738	0.733	7.6	15.2	0.796	0.796
Sulfate	mg/L		148	120	312	311	766J	932	356	358
PCBs										
Aroclor 1242	µg/L	---	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	---	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	---	0.129	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	---	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-15S-87-0624 6/11/24	MW-16S-0624 6/15/24	MW-17S-0624 6/12/24	MW-18S-0624 6/15/24	MW-19S-0624 6/13/24	MW-20-85S-0624 6/12/24	MW-22-85S-0624 6/17/24	MW-23-85S-0624 6/11/24
Field Parameters									
pH	SU	7.17	7.78	6.97	7.37	6.65	11.47	7.22	6.9
Temperature	deg C	13.7	11.7	13.6	13.5	14.9	12.2	12.7	10.5
Specific Conductance	mS/cm	0.843	1.205	0.981	1.24	0.801	1.682	1.74	1.306
Turbidity	NTU	7.53	0.02	3.52	9.53	0.02	20	4.82	42.7
Oxidation Reduction Potential	mVolt	222	180.5	-53.1	236.2	286.7	83.8	91.3	240.4
Dissolved Oxygen	mg/L	53	26.6	56	82	62	78	32	29.4
Conventionals									
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	3.64	7.33	1.22J	18.9	2.99J	0.638	0.248	0.77
Sulfate	mg/L	133J	252	88.8	250	69.3	287J	423J	382
PCBs									
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-26S-0624 6/11/24	MW-27S-0624 6/14/24	MW-28S-0624 6/11/24	MW-30S-0624 6/10/24	MW-31SR-0624 6/11/24	MW-33S-0624 6/11/24	MW-34S-0624 6/14/24	MW-35SR-0624 6/12/24	MW-36-0624 6/13/24
Field Parameters										
pH	SU	6.96	7.25	7.82	6.78	6.97	7.5	7.78	6.61	7.88
Temperature	deg C	13.9	14.4	11.2	12.1	10.7	14.2	14.2	12	20.1
Specific Conductance	mS/cm	0.918	8.01	1.037	0.924	0.863	1.84	3.101	1.768	2.462
Turbidity	NTU	3.23	0.02	2.2	0.02	0.55	1.34	0.02	47.7	1750.2
Oxidation Reduction Potential	mVolt	160.9	251.2	-125.8	-21	262.5	261.7	156.3	221.9	194.9
Dissolved Oxygen	mg/L	13.6	39.1	9.5	12.8	51.9	46	33.2	9.8	33.2
Conventionals										
Free Cyanide	mg/L	0.002U	0.002U	0.0072	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	4.76	2.67	9.86	6.01	1.24	---	---	1.16J	1.43
Sulfate	mg/L	162J	336	168J	92.7	183J	---	---	624	362
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-37-0624 6/13/24	MW-37-0624D 6/13/24	MW-38-0624 6/14/24	MW-39S-0624 6/10/24	MW-40S-0624 6/10/24	MW-41-0624 6/12/24	MW-42-0624 6/12/24	MW-43-0624 6/12/24	MW-44-0624 6/12/24
Field Parameters										
pH	SU	7.25	---	8.1	6.82	6.93	7.38	7.77	6.49	6.4
Temperature	deg C	14	---	19	11.3	13.1	16.5	15.4	11.4	10.4
Specific Conductance	mS/cm	1.111	---	0.679	0.897	1.356	1.118	3.58	1.014	0.989
Turbidity	NTU	950	---	142	1.63	7.45	337	592	644	5.48
Oxidation Reduction Potential	mVolt	-77.7	---	168.3	-19.6	191.5	249.8	232.7	296.5	301.7
Dissolved Oxygen	mg/L	4	---	28.1	37	20	35	65.1	48	42.6
Conventionals										
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.00082J	0.002U	0.002U
Fluoride	mg/L	0.259	0.252	0.416	3.2	0.617	0.67J	15.2J	0.648J	0.665
Sulfate	mg/L	316	317	194	130	55.6	269	1230	154	141J
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-45-0624 6/10/24	MW-48-0624 6/18/24	MW-49-0624 6/17/24	MW-50-0624 6/17/24	MW-51-0624 6/17/24	MW-52-0624 6/17/24	MW-54-0624 6/17/24	MW-55-0624 6/18/24	MW-56-0624 6/11/24
Field Parameters										
pH	SU	6.71	7.18	7.63	7.43	7.18	7.42	7.8	7.06	7.1
Temperature	deg C	11.5	17.8	15.8	14.2	13.7	14.7	19.2	16.8	12.5
Specific Conductance	mS/cm	1.716	1.533	0.576	1.767	1.173	1.392	0.745	1.082	1.299
Turbidity	NTU	1.08	14.5	146	2.18	107	4.48	33.2	84.5	17.8
Oxidation Reduction Potential	mVolt	60.8	139.5	-68	-80.9	-21.1	-71.2	81.6	-44	-35.7
Dissolved Oxygen	mg/L	43	75	8	9	18	13	19	13	58
Conventionals										
Free Cyanide	mg/L	0.0012J	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	0.824	0.169	1.23	0.632	0.157	0.195	0.626	---	0.749
Sulfate	mg/L	494	198J	134J	374J	106J	276J	185J	---	260
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---

Sample ID Sample Date Parameter ID	Unit	PZ-44-0624 6/11/24	PZ-45-0624 6/11/24	PZ-46-0624 6/11/24	SLPWETE-0624 6/10/24	SLPWETW-0624 6/10/24
Field Parameters						
pH	SU	7.08	7.09	7.17	8.68	7.07
Temperature	deg C	14.2	15.3	16.9	18.9	17
Specific Conductance	mS/cm	2.455	2.309	2.273	0.3462	0.2337
Turbidity	NTU	4	16.5	185	7.09	2.06
Oxidation Reduction Potential	mVolt	-83.4	-54.5	28.6	162.6	251.6
Dissolved Oxygen	mg/L	19.8	26.2	40.2	86	54
Conventionals						
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	3.69	1.4	2.82	4.6	0.93
Sulfate	mg/L	928	1070	1200	7.51	0.542J
PCBs						
Aroclor 1242	µg/L	0.065U	0.065U	---	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	---	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	---	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	---	0.065U	0.065U

Key:
U = Nondetect
J = Estimated
--- = Not Analyzed

				Free Cyanide		Fluoride		Sulfate		PCBs			
Sample ID	Sample Date	VTSR[1]	Days	Target - 12 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days	Target - 365 Days from VTSR to Extraction	Days	Target - 40 Days from Extraction to Analysis	Days
FDRAIN-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	---	---	---	---	---	---
MW-03S-0624	6/14/24	6/17/24	3	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-10S-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/20/24	7	7/1/24	11
MW-11SR-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/26/24	13	6/27/24	1
MW-11SR-0624D	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/20/24	7	7/1/24	11
MW-1207-0624 FBW	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
MW-1208-0624 FBW	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/21/24	8	6/24/24	3
MW-1209-0624 FBW	6/12/24	6/13/24	1	6/21/24	8	6/19/24	6	6/19/24	6	6/21/24	8	6/24/24	3
MW-1210-0624 FBW	6/13/24	6/17/24	4	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-1211-0624 FBW	6/14/24	6/17/24	3	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-1212-0624FBW	6/15/24	6/18/24	3	6/27/24	9	6/22/24	4	6/22/24	4	6/26/24	8	6/27/24	1
MW-1213-0624 FBW	6/17/24	6/19/24	2	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-1214-0624 FBW	6/18/24	6/19/24	1	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-12S-0624	6/12/24	6/13/24	1	6/21/24	8	6/18/24	5	6/18/24	5	6/21/24	8	6/24/24	3
MW-13S-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/20/24	7	7/1/24	11
MW-14S-0624	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
MW-14S-0624D	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
MW-15S-87-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/21/24	8	6/24/24	3
MW-16S-0624	6/15/24	6/18/24	3	6/27/24	9	6/22/24	4	6/22/24	4	6/26/24	8	6/27/24	1
MW-17S-0624	6/12/24	6/14/24	2	6/21/24	7	6/19/24	5	6/19/24	5	6/21/24	7	6/24/24	3
MW-18S-0624	6/15/24	6/18/24	3	6/27/24	9	6/22/24	4	6/22/24	4	6/26/24	8	6/27/24	1
MW-19S-0624	6/13/24	6/14/24	1	6/21/24	7	6/19/24	5	6/19/24	5	6/21/24	7	6/24/24	3
MW-20-85S-0624	6/12/24	6/13/24	1	6/21/24	8	6/18/24	5	6/18/24	5	6/21/24	8	6/24/24	3
MW-22-85S-0624	6/17/24	6/19/24	2	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-23-85S-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/20/24	7	7/1/24	11
MW-26S-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/21/24	8	6/24/24	3
MW-27S-0624	6/14/24	6/17/24	3	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-28S-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/21/24	8	6/24/24	3
MW-30S-0624	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
MW-31SR-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/20/24	7	7/1/24	11
MW-33S-0624	6/11/24	6/13/24	2	6/21/24	8	---	---	---	---	---	---	---	---
MW-34S-0624	6/14/24	6/17/24	3	6/27/24	10	---	---	---	---	---	---	---	---
MW-35SR-0624	6/12/24	6/14/24	2	6/21/24	7	6/19/24	5	6/19/24	5	6/21/24	7	6/24/24	3
MW-36-0624	6/13/24	6/17/24	4	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-37-0624	6/13/24	6/17/24	4	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-37-0624D	6/13/24	6/17/24	4	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-38-0624	6/14/24	6/17/24	3	6/27/24	10	6/20/24	3	6/20/24	3	6/26/24	9	6/27/24	1
MW-39S-0624	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
MW-40S-0624	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
MW-41-0624	6/12/24	6/14/24	2	6/21/24	7	6/19/24	5	6/19/24	5	6/21/24	7	6/24/24	3
MW-42-0624	6/12/24	6/14/24	2	6/21/24	7	6/19/24	5	6/19/24	5	6/21/24	7	6/24/24	3
MW-43-0624	6/12/24	6/14/24	2	6/21/24	7	6/19/24	5	6/19/24	5	6/21/24	7	6/24/24	3
MW-44-0624	6/12/24	6/13/24	1	6/21/24	8	6/18/24	5	6/18/24	5	6/21/24	8	6/24/24	3
MW-45-0624	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
MW-48-0624	6/18/24	6/19/24	1	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-49-0624	6/17/24	6/19/24	2	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-50-0624	6/17/24	6/19/24	2	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-51-0624	6/17/24	6/19/24	2	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	7/8/24	12
MW-52-0624	6/17/24	6/19/24	2	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-54-0624	6/17/24	6/19/24	2	6/27/24	8	7/8/24	19	7/8/24	19	6/26/24	7	6/27/24	1
MW-55-0624	6/18/24	6/19/24	1	6/27/24	8	---	---	---	---	6/26/24	7	6/27/24	1
MW-56-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	---	---	---	---
PZ-44-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	6/20/24	7	7/1/24	11
PZ-45-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/19/24	6	6/20/24	7	7/1/24	11
PZ-46-0624	6/11/24	6/13/24	2	6/21/24	8	6/18/24	5	6/18/24	5	---	---	---	---
SLPWETE-0624	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11
SLPWETW-0624	6/10/24	6/13/24	3	6/21/24	8	6/27/24	14	6/27/24	14	6/20/24	7	7/1/24	11

Key:

1. VTSR = Verified time of sample receipt

Note:

--- = Not sampled

Sample ID Sample Date Parameter ID	Unit	MW-1207-0624 FBW 6/10/24	MW-1208-0624 FBW 6/11/24	MW-1209-0624 FBW 6/12/24	MW-1210-0624 FBW 6/13/24	MW-1211-0624 FBW 6/14/24	MW-1212-0624FBW 6/15/24	MW-1213-0624 FBW 6/17/24	MW-1214-0624 FBW 6/18/24
Conventionals									
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.0011J	0.002U
Fluoride	mg/L	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U
Sulfate	mg/L	1U	1U	1U	1U	1U	1U	1U	1U
PCBs									
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Key:
U = Nondetect
J = Estimated

Sample ID		Original Sample	Duplicate Sample		Original Sample	Duplicate Sample		Original Sample	Duplicate Sample	
		MW-11SR-0624	MW-1206-0624BD	Relative	MW-14S-0524	MW-1205-0624BD		MW-37-0624	MW-1219-0624BD	Relative
Sample Location		MW-11SR	MW-11SR	Percent	MW-14S	MW-14S	Relative Percent	MW-37	MW-37	Percent
Sample Date		6/11/24	6/11/24	Difference[1,2] %	6/10/24	6/10/24	Difference[1,2] %	6/13/24	6/13/24	Difference[1,2] %
Parameter ID	**Unit**									
Conventionals										
Free Cyanide	mg/L	0.002U	0.002U	---	0.002U	0.002U	---	0.002U	0.002U	---
Fluoride	mg/L	0.738	0.733	0.7	0.796	0.796	0.0	0.259	0.252	2.7
Sulfate	mg/L	312	311	0.3	356	358	0.6	316	317	0.3
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	---	0.065U	0.065U	---	0.065U	0.065U	---
Aroclor 1248	µg/L	0.065U	0.065U	---	0.065U	0.065U	---	0.065U	0.065U	---
Aroclor 1254	µg/L	0.065U	0.065U	---	0.065U	0.065U	---	0.065U	0.065U	---
Aroclor 1260	µg/L	0.065U	0.065U	---	0.065U	0.065U	---	0.065U	0.065U	---

Notes:

1. Precision is evaluated by calculating the relative percent difference (RPD) using the following formula:

$$\left| 2 * (X1 - X2) / (X1 + X2) * 100 \right|$$

where X1 is the original sample value and X2 is the duplicate sample value.

2. --- = RPD not calculated for nondetected parameters.

Key:

U = Nondetect

--- = Not Analyzed

Memorandum

To: *Jason Mibroda*

From: *Amy Picunas, P.E., PMP*

Date: *December 18, 2024*

Subject: *Reynolds Metals Company, LLC – NYSDEC Site Code #645009*
Data Quality Assessment – September 2024

This memorandum presents the data quality assessment for the September 2024 quarterly sampling round for the Reynolds Massena Plant. Samples were collected on September 16 and September 17, 2024, and analyzed for polychlorinated biphenyls (PCBs), and conventional inorganics (free cyanide, fluoride, and sulfate).

Laboratory quality control data associated with these samples were reviewed in accordance with the *Quality Assurance Project Plan* (QAPP) (CDM Smith 2008) and United States Environmental Protection Agency (USEPA) Region II Contract Laboratory Program (CLP) data validation criteria as referenced in *Validating PCB Compounds PCBs by Gas Chromatography SW-846 Method 8082A* (SOP No. HW-45, Revision No. 1, October 2006) and in *Validation of Metals for the (CLP) Based on SOW ILMO5.3* (SOP No. HW-2. Revision No. 13, September 2006). All analyses were performed by Alpha Analytical in Westborough, Massachusetts except free cyanide which was performed by Eurofins in Pittsburgh, Pennsylvania.

The intent of this review is to provide a general assessment of the overall quality of the data packages based on the review of the following information:

- Field and laboratory method blanks
- Surrogate spike recovery
- Field duplicate precision
- Matrix spike/matrix spike duplicate (MS/MSD) samples
- Laboratory control sample/laboratory control sample duplicates (LCS/LCSD)
- Sample holding time data
- Sample receipt conditions

All applicable data were evaluated and are summarized below. Field quality assurance sample results (field blanks and duplicate samples) were also evaluated. Analytical results, hold times and field quality assurance data are summarized in Tables 1 through 4.

PCB Analysis

One field blank sample was collected on each day of sampling (MW-1220-0924FBW and MW-1221-0924FBW). PCB Aroclors were not detected in the field blank samples. In addition, the laboratory blank sample analyzed with the field samples was non-detect for Aroclors. No qualification is required.

PCB analysis surrogate spike recovery data were reviewed. Tetrachloro-m-xylene (TCX) and decachlorobiphenyl (DCB) were the compounds used for the surrogate spike standards. The QAPP specifies that at least one surrogate is recovered within range (30 to 150 percent), with both surrogate recoveries greater than 10 percent. All surrogate recoveries were within the acceptable range except for the under-recovery of DCB in samples MW-1220-0924FBW, SLPWETE-0924, SLPWETW-0924, and MW-1221-0924FBW. No qualification is required since TCX was recovered in range and all recoveries were greater than 10 percent.

A field duplicate sample was collected at MW-39S (MW-1219-0924BD). All Aroclors were non-detect in both the parent and duplicate sample. No qualification is required.

Sample MW-10S-0924 was analyzed as a MS/MSD sample. The QAPP specifies that MS/MSD recoveries be within the range of 29 to 135 percent, with a relative percent difference (RPD) of less than 30 percent between the spiked pair. The MS and MSD samples were spiked with Aroclor 1016 and Aroclor 1260. Recoveries and precision between the spiked pair were acceptable. No qualification is required.

The QAPP specifies a recovery range of 50 to 150 percent for compounds in an LCS/LCSD. Recovery and precision for Aroclor 1260 was within the acceptable range in the two LCS/LCSD samples; no qualification is required.

USEPA Region II guidance specifies a holding time of up to 365 days beyond the verified time of sample receipt (VTSR) for sample extraction and 40 days from the time of sample extraction to analysis. In addition, the VTSR must be within 48 hours of sample collection. Table 2 presents a compilation of the relevant information regarding PCB analysis holding times. No qualification is required.

The condition of the samples upon receipt at the laboratory was reviewed. All samples were received at temperatures below 10°C. No qualification is required.

Based on the results of this assessment, the PCB results for the September 2024 quarterly sampling event can be used without qualification.

Conventional Analysis

Samples were analyzed for free cyanide, fluoride, and sulfate.

One field blank sample was collected during each day of sampling (MW-1220-0924FBW and MW-1221-0924FBW). Free cyanide, fluoride, and sulfate were not detected in the field blanks. Additionally, the method blanks analyzed by the laboratories with the field samples were non-detect for free cyanide, sulfate, and fluoride. No qualification is required.

A field duplicate sample was collected at MW-39S (MW-1219-0924BD). The RPD quantified between the parent and duplicate sample collected at the monitoring well was acceptable for all conventional parameters. Free cyanide was not detected in the parent and was detected above the method detection limit but below the reporting limit in the duplicate sample. In such case when one or both samples is less than five times the reporting limit, the absolute difference is used to determine qualification. No qualification is required as the absolute difference between these results are below the reporting limit.

MS/MSD analysis was requested on MW-10S-0924. The QAPP specifies acceptable MS/MSD recovery limits as 80 to 120 percent for fluoride and sulfate. The QAPP does not specify MS/MSD recovery limits for free cyanide; therefore, the laboratory-specified recovery limits were used to determine the need for qualification. All recoveries were acceptable with some exceptions. MS and MSD recoveries were below the laboratory limits of 82 to 130 percent for free cyanide for MW-10S-0924 at 61 and 63 percent, respectively. The laboratory job narrative stated that sample matrix interference and/or non-homogeneity are suspected since the LCS recovery was acceptable. Consequently, the free cyanide result for only MW-10S-0924 is qualified as estimated nondetect ("UJ").

All LCS recoveries for conventional were acceptable. No qualification is required.

The QAPP specifies holding times for conventional inorganic parameters beyond the VTSR. The VTSR must be within 48 hours of sample collection. Table 2 presents a compilation of the relevant information regarding conventional parameter analysis holding times. All hold time requirements were met. No qualification is required.

Sample receipt conditions were reviewed. All samples were received within the QAPP-specified temperature limits. No qualification is required.

Conventional results for the September 2024 quarterly sampling round can be used as reported by the laboratory with the qualifications noted above.

PR:tmp

Attachments

cc: Craig Peets, Alcoa
Jessica Roche, Alcoa
pw:\\1902\80599\02 Project Information\03 Data\40 Field Data\2021 Database\September 2024\24061

Sample ID Sample Date Parameter ID	Unit	MW-10S-0924 9/16/24	MW-39S-0924 9/16/24	MW-39S-0924D 9/16/24	MW-40S-0924 9/17/24	MW-45-0924 9/16/24	SLPWETE-0924 9/17/24	SLPWETW-0924 9/17/24
Field Parameters								
pH	SU	7.11	6.7	---	7.2	6.57	7.67	7.05
Temperature	deg C	18.7	17.8	---	16.2	16	23.7	22.1
Specific Conductance	mS/cm	0.834	0.921	---	1.131	1.69	0.4744	0.1858
Turbidity	NTU	0.28	3.11	---	0.02	1.66	1.24	0.93
Redox Potential	mVolt	166.7	-57.3	---	51.4	12.7	189	150.7
Conventionals								
Cyanide, Free	mg/L	0.002UJ	0.002U	0.0013J	0.002U	0.0011J	0.002U	0.00093J
Fluoride	mg/L	0.159	3.46	3.48	0.224	0.579	3.34	0.942
Sulfate	mg/L	106	98.6	98.3	62.8	428	3.91	0.498J
PCBs								
Aroclor 1242	µg/L	0.019U	0.019U	0.02U	0.019U	0.019U	0.019U	0.019U
Aroclor 1248	µg/L	0.019U	0.019U	0.02U	0.019U	0.019U	0.019U	0.019U
Aroclor 1254	µg/L	0.019U	0.019U	0.02U	0.019U	0.019U	0.019U	0.019U
Aroclor 1260	µg/L	0.019U	0.019U	0.02U	0.019U	0.019U	0.019U	0.019U

Key:
U = Nondetect
J = Estimated
UJ = Estimated nondetect

Table 1
East Plant
Summary of Analytical Results

Sample ID	Sample Date	VTSR[1]	Days	Cyanide, Free		Fluoride		Sulfate		PCBs			
				Target - 12 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days	Target - 365 Days from VTSR to Extraction	Days	Target - 40 Days from Extraction to Analysis	Days
MW-10S-0924	9/16/24	9/18/24	2	9/24/24	6	10/2/24	14	10/2/24	14	10/7/24	19	10/9/24	2
MW-1220-0924FBW	9/16/24	9/18/24	2	9/24/24	6	10/3/24	15	10/3/24	15	10/7/24	19	10/9/24	2
MW-1221-0924FBW	9/17/24	9/18/24	1	9/24/24	6	10/2/24	14	10/2/24	14	10/7/24	19	10/9/24	2
MW-39S-0924	9/16/24	9/18/24	2	9/24/24	6	10/2/24	14	10/2/24	14	10/7/24	19	10/9/24	2
MW-39S-0924D	9/16/24	9/18/24	2	9/24/24	6	10/2/24	14	10/2/24	14	10/7/24	19	10/9/24	2
MW-40S-0924	9/17/24	9/18/24	1	9/24/24	6	10/3/24	15	10/3/24	15	10/7/24	19	10/9/24	2
MW-45-0924	9/16/24	9/18/24	2	9/24/24	6	10/2/24	14	10/2/24	14	10/7/24	19	10/9/24	2
SLPWETE-0924	9/17/24	9/18/24	1	9/24/24	6	10/2/24	14	10/3/24	15	10/7/24	19	10/9/24	2
SLPWETW-0924	9/17/24	9/18/24	1	9/24/24	6	10/3/24	15	10/3/24	15	10/7/24	19	10/9/24	2

Key:

1. VTSR = Verified time of sample receipt; date shown is the VTSR at Alpha Analytical

Table 2
East Plant
Summary of Sample Hold Times

Sample ID Sample Date Parameter ID	Unit	MW-1220-0924FBW 9/16/24	MW-1221-0924FBW 9/17/24
Conventionals			
Cyanide, Free	mg/L	0.002U	0.002U
Fluoride	mg/L	0.05U	0.05U
Sulfate	mg/L	1U	1U
PCBs			
Aroclor 1242	µg/L	0.019U	0.019U
Aroclor 1248	µg/L	0.019U	0.019U
Aroclor 1254	µg/L	0.019U	0.019U
Aroclor 1260	µg/L	0.019U	0.019U

Key:
U = Nondetect

Sample ID Sample Location Sample Date Parameter ID	Unit	Original Sample MW-39S-0924 MW-39S 9/16/24	Duplicate Sample MW-1219-0924BD MW-39S 9/16/24	Relative Percent Difference[1,2] %
Conventionals				
Cyanide, Free	mg/L	0.002U	0.0013J	---[3]
Fluoride	mg/L	3.46	3.48	0.6
Sulfate	mg/L	98.6	98.3	0.3
PCBs				
Aroclor 1242	µg/L	0.019U	0.02U	---
Aroclor 1248	µg/L	0.019U	0.02U	---
Aroclor 1254	µg/L	0.019U	0.02U	---
Aroclor 1260	µg/L	0.019U	0.02U	---

Notes:

1. Precision is evaluated by calculating the relative percent difference (RPD) using the following formula:

$$| 2 * (X1 - X2) / (X1 + X2) * 100 |$$

where X1 is the original sample value and X2 is the duplicate sample value.

2. --- = RPD not calculated for nondetect parameters.

3. When one or both results are less than five times the reporting limit, the absolute difference is used to determine qualification.

Key:

U = Nondetect

J = Estimated

Table 4
East Plant
Summary of Field Duplicate Samples

Memorandum

To: *Jason Mibroda*

From: *Paul Rodrigue*

Date: *February 6, 2025*

Subject: *Reynolds Metals Company, LLC – NYSDEC Site Code #645009*
Data Quality Assessment – December 2024

This memorandum presents the data quality assessment for the December 2024 quarterly sampling round for the Reynolds Massena Plant. Samples were collected between December 3 and December 13, 2024, and analyzed for polychlorinated biphenyls (PCBs), and conventional inorganics (free cyanide, fluoride, and sulfate).

Laboratory quality control data associated with these samples were reviewed in accordance with the *Quality Assurance Project Plan* (QAPP) (CDM Smith 2008) and United States Environmental Protection Agency (USEPA) Region II Contract Laboratory Program (CLP) data validation criteria as referenced in *Validating PCB Compounds PCBs by Gas Chromatography SW-846 Method 8082A* (SOP No. HW-45, Revision No. 1, October 2006) and in *Validation of Metals for the (CLP) Based on SOW ILMO5.3* (SOP No. HW-2. Revision No. 13, September 2006). All analyses were performed by Alpha Analytical in Westborough, Massachusetts except free cyanide which was analyzed by Eurofins in Pittsburgh, Pennsylvania.

The intent of this review is to provide a general assessment of the overall quality of the data packages based on the review of the following information:

- Field and laboratory method blanks
- Surrogate spike recovery
- Field duplicate precision
- Matrix spike/matrix spike duplicate (MS/MSD) samples
- Laboratory control sample/laboratory control sample duplicates (LCS/LCSD)
- Sample holding time data
- Sample receipt conditions

All applicable data were evaluated and are summarized below. Field quality assurance sample results (field blanks and duplicate samples) were also evaluated. Analytical results, hold times and field quality assurance data are summarized in Tables 1 through 4.

PCB Analysis

One field blank sample was collected on each day of sampling (MW-1227-1224FBW through MW-1235-1224FBW). PCB Aroclors were not detected in the field blank samples. In addition, the laboratory blank samples analyzed with the field samples were non-detect for Aroclors. No qualification is required. The sample bottle for field blank MW-1232-1224FBW was received by the laboratory broken; therefore, this sample could not be analyzed. No qualification is required as PCBs were not detected in associated field samples.

PCB analysis surrogate spike recovery data were reviewed. Tetrachloro-m-xylene (TCX) and decachlorobiphenyl (DCB) were the compounds used for the surrogate spike standards. The QAPP specifies that at least one surrogate is recovered within range (30 to 150 percent), with both surrogate recoveries greater than 10 percent. All surrogate recoveries were within the acceptable range except for under-recoveries of DCB in samples MW-31SR-1224, SLPWETW-1224, PZ-45-1224, MW-26S-1224, MW-16S-1224, MW-51-1224, and MW-48-1224, and the under-recovery of TCX in sample MW-38-1224. In each case, the second surrogate was recovered in range and all recoveries were greater than 10 percent. No qualification is required.

Field duplicate samples were collected at MW-18S (MW-1224-1224BD)and MW-36 (MW-1225-1224BD). All Aroclors were non-detect in both the parent and duplicate samples. No qualification is required.

Samples MW-10S-1224, MW-12S-1224, and MW-36-1224 were analyzed as MS/MSD samples. The QAPP specifies that MS/MSD recoveries be within the range of 29 to 135 percent, with a relative percent difference (RPD) of less than 30 percent between the spiked pair. The MS and MSD samples were spiked with Aroclor 1016 and Aroclor 1260. Recoveries and precision between the spiked pairs were acceptable except MW-12S-1224 which had an under-recovery for Aroclor 1260 at 6 percent. USEPA Region II guidance states to use professional judgment when recoveries are less than 20 percent. Since the LCS/LCSDs were acceptable and all field samples were non-detect, no further qualification is required.

The QAPP specifies a recovery range of 50 to 150 percent for compounds in an LCS/LCSD. Recovery and precision for Aroclor 1260 was within the acceptable range in the LCS/LCSD samples; no qualification is required.

USEPA Region II guidance specifies a holding time of up to 365 days beyond the verified time of sample receipt (VTSR) for sample extraction and 40 days from the time of sample extraction to analysis. Table 2 presents a compilation of the relevant information regarding PCB analysis holding times. No qualification is required.

The condition of the samples upon receipt at the laboratory was reviewed. All samples were received at temperatures below 10°C. No qualification is required.

Based on the results of this assessment, the PCB results for the December 2024 quarterly sampling event can be used without qualification.

Conventional Analysis

Samples were analyzed for free cyanide, fluoride, and sulfate.

One field blank sample was collected on each day of sampling (MW-1227-1224FBW through MW-1235-1224FBW). Sulfate was detected above the method detection limit (MDL), but below the reporting limit in MW-1227-1224FBW and both fluoride and sulfate were detected above the MDL and below the reporting limit in MW-1234-1224FBW. No qualification is required since the detections were below the reporting limit. Additionally, the method blanks analyzed by the laboratories with the field samples were non-detect for free cyanide, fluoride, and sulfate with some exceptions. Free cyanide was detected in two method blanks and fluoride in one method blank at concentrations above the MDL, but below the reporting limit. In such case, any associated field samples with concentrations greater than the MDL and below the reporting limit are revised to non-detect at the reporting limit. There are no associated fluoride samples that meet this criterion; however, the free cyanide result for associated sample MW-39S-1224 is revised to 0.002U mg/L.

Field duplicate samples were collected at MW-18S (MW-1224-1224BD)and MW-36 (MW-1225-1224BD). The RPD quantified between the parent and duplicate samples collected at each monitoring well was acceptable for all conventional parameters. No qualification is required.

MS/MSD analysis was requested on MW-10S-1224, MW-12S-1224, and MW-36-1224. The laboratories also performed MS analyses for fluoride and sulfate on MW-28S-1224and MW-40S-1224, and for free cyanide on FDRAIN-1224, MW-55-1224, and MW-1235-1224FBW. The QAPP specifies acceptable MS/MSD recovery limits as 80 to 120 percent for fluoride and sulfate. The QAPP does not specify MS/MSD recovery limits for free cyanide; therefore, the laboratory-specified recovery limits were used to determine the need for qualification. All recoveries were acceptable with some exceptions. Sulfate was under-recovered in MW-40S-1224 at 62 percent. Additionally, fluoride and sulfate were under-recovered in MW-28S-1224 at 79 and 78 percent, respectively, and free cyanide was under-recovered in FDRAIN-1224 at 67 percent. In the case of MW-40S the native sample concentration was more than four times the spike amount; therefore, no qualification is required. Due to the under-recoveries in MW-28S-1224, the following samples have fluoride and sulfate results qualified as estimated (“J”): MW-16S-1224, MW-17S-1224, MW-19S-1224, MW-28S-1224, and MW-44-1224. The laboratory case narrative attributed the under-recovery of free cyanide in sample FDRAIN-1224 to the non-homogenous nature of the sample and matrix interferences. For this reason and since LCS recoveries were acceptable, the free cyanide result for the spike sample only (FDRAIN-1224) is qualified as estimated non-detect (“UJ”).

All LCS recoveries for conventional were acceptable. No qualification is required.

The QAPP specifies holding times for conventional inorganic parameters beyond the VTSR. Table 2 presents a compilation of the relevant information regarding conventional parameter analysis holding times. All hold time requirements were met. No qualification is required.

Sample receipt conditions were reviewed. All samples were received within the QAPP-specified temperature limits. No qualification is required.

Conventional results for the December 2024 quarterly sampling round can be used as reported by the laboratory with the qualifications noted above.

AR:tmp

Attachments

cc: Craig Peets, Alcoa
Jessica Roche, Alcoa
Matthew Kraeuter, Alcoa
pw:\\1902\80599\02 Project Information\03 Data\40 Field Data\2024 Database\December\25014

Sample ID Sample Date Parameter ID	Unit	FDRAIN-1224 12/6/24	MW-03S-1224 12/13/24	MW-10S-1224 12/4/24	MW-11SR-1224 12/3/24	MW-12S-1224 12/4/24	MW-13S-1224 12/4/24	MW-14S-1224 12/4/24	MW-15S-87-1224 12/5/24	MW-16S-1224 12/6/24
Field Parameters										
pH	SU	7.38	7.81	8.42	7.46	7.39	7.28	7.41	7.13	7.73
Temperature	deg C	21	10.4	7.4	7	7.5	8.9	7.9	8.3	7.9
Specific Conductance	mS/cm	0.929	1.469	0.833	1.051	2.271	4.366	1.411	0.966	1.21
Turbidity	NTU	3.25	12.8	0.02	7.23	7.81	0.02	4.02	5.19	28.7
Oxidation Reduction Potential	mVolt	297.4	228.5	104.7	146.1	235	211	213.6	132.6	202.2
Conventionals										
Free Cyanide	mg/L	0.002UJ	0.005	0.0031	0.002U	0.0041B	0.002U	0.0033	0.002U	0.002U
Fluoride	mg/L	23.2J	9.53	0.133	0.25	8.76	18.9	0.42	2.74	6.93J
Sulfate	mg/L	156J	186	108	170	806	877	371	216	256J
PCBs										
Aroclor 1242	µg/L	---	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	---	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	---	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	---	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-17S-1224 12/6/24	MW-18S-1224 12/4/24	MW-18S-1224D 12/4/24	MW-19S-1224 12/6/24	MW-20-85S-1224 12/4/24	MW-22-85S-1224 12/11/24	MW-23-85S-1224 12/4/24	MW-26S-1224 12/5/24
Field Parameters									
pH	SU	7.31	7.55	---	7.29	12.22	7.32	7.38	7.27
Temperature	deg C	7.1	10.7	---	9.9	6	8.1	8.7	9.5
Specific Conductance	mS/cm	1.212	1.08	---	0.877	2.33	1.728	1.343	0.942
Turbidity	NTU	10.4	0.02	---	0.93	14.6	5.6	40.7	0.02
Oxidation Reduction Potential	mVolt	228.8	199	---	195.6	-46.7	-30.2	187.6	-34.4
Conventionals									
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	0.836J	16	16.2	2.68J	0.229	0.232	0.358	4.33
Sulfate	mg/L	149J	210	213	80.3J	307	413	406	165
PCBs									
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-27S-1224 12/5/24	MW-28S-1224 12/6/24	MW-30S-1224 12/3/24	MW-31SR-1224 12/4/24	MW-33S-1224 12/10/24	MW-34S-1224 12/12/24	MW-35SR-1224 12/12/24	MW-36-1224 12/10/24	MW-36-1224D 12/10/24
Field Parameters										
pH	SU	7.36	8.07	6.82	7.88	7.52	7.76	6.84	8.55	---
Temperature	deg C	9.1	10.8	7.7	8.4	7.3	4.2	10.6	3.4	---
Specific Conductance	mS/cm	7.25	1.052	0.823	0.805	1.703	2.915	2.205	2.577	---
Turbidity	NTU	0.02	0.02	0.02	1.93	0.02	8.6	3.6	650	---
Oxidation Reduction Potential	mVolt	198.4	53.9	25.5	-70.7	212.4	236.3	111.5	142.1	---
Conventionals										
Free Cyanide	mg/L	0.002U	0.013	0.0031	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	2.61	10.2J	4.32	0.786	---	---	0.596	1.93	1.97
Sulfate	mg/L	322	175J	56.5	186	---	---	895	330	337
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	---	---	0.065U	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-37-1224 12/9/24	MW-38-1224 12/11/24	MW-39S-1224 12/3/24	MW-40S-1224 12/4/24	MW-41-1224 12/9/24	MW-42-1224 12/10/24	MW-43-1224 12/9/24	MW-44-1224 12/6/24	MW-45-1224 12/3/24
Field Parameters										
pH	SU	7.44	8.03	6.87	7.3	9.43	7.94	6.99	7.01	6.88
Temperature	deg C	7.1	9.2	8.1	9.9	4.5	7.4	6.8	8.8	8.5
Specific Conductance	mS/cm	1.095	0.605	0.939	1.163	1.101	3.788	0.875	0.86	1.668
Turbidity	NTU	229	420	0.02	0.02	217	720	168	41.3	0.02
Oxidation Reduction Potential	mVolt	-69.8	176.2	-32	113.8	186.3	232.9	214	189.6	51.5
Conventionals										
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	0.267	0.497	2.55	0.178	0.189	31.7	0.178	0.251J	0.433
Sulfate	mg/L	285	188	117	57.5	258	1070	106	104J	428
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U

Sample ID Sample Date Parameter ID	Unit	MW-48-1224 12/12/24	MW-49-1224 12/10/24	MW-50-1224 12/10/24	MW-51-1224 12/12/24	MW-52-1224 12/10/24	MW-54-1224 12/11/24	MW-55-1224 12/11/24	MW-56-1224 12/4/24	PZ-44-1224 12/4/24
Field Parameters										
pH	SU	7.39	7.92	7.46	7.29	7.48	7.95	7.14	7.07	7.03
Temperature	deg C	5.2	8.6	9.2	8.2	8.5	8.4	9.4	9.8	6.2
Specific Conductance	mS/cm	1.43	0.569	1.704	1.245	1.504	0.805	1.088	1.303	1.67
Turbidity	NTU	220	64.9	0.02	122	0.02	36.8	9.74	15.5	41.2
Oxidation Reduction Potential	mVolt	299	-100.4	-80.5	-65.7	209.9	-0.5	-61.1	-47.5	236.4
Conventionals										
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.0032
Fluoride	mg/L	0.208	1.26	1.32	0.143	0.193	0.413	---	0.321	4.95
Sulfate	mg/L	183	126	261	109	297	192	---	284	713
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	0.065U	---	0.065U

Sample ID Sample Date Parameter ID	Unit	PZ-45-1224 12/5/24	PZ-46-1224 12/4/24	SLPWETE-1224 12/4/24	SLPWETW-1224 12/4/24
Field Parameters					
pH	SU	7.41	7.41	7.78	7.39
Temperature	deg C	7.8	5	1.4	1.4
Specific Conductance	mS/cm	1.989	1.742	0.517	0.448
Turbidity	NTU	96.3	52	16.9	10.9
Oxidation Reduction Potential	mVolt	156.9	245.7	52.8	-73.6
Conventionals					
Free Cyanide	mg/L	0.002U	0.0024	0.0028	0.0045
Fluoride	mg/L	0.997	2.99	3.78	0.848
Sulfate	mg/L	893	856	8.08	1.03
PCBs					
Aroclor 1242	µg/L	0.065U	---	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	---	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	---	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	---	0.065U	0.065U

Key:
U = Nondetect
J = Estimated
--- = Not Analyzed
B = detected in the associated method blank

				Free Cyanide		Fluoride		Sulfate		PCBs			
Sample ID	Sample Date	VTSR[1]	Days	Target - 12 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days	Target - 26 Days VTSR to Analysis	Days	Target - 365 Days from VTSR to Extraction	Days	Target - 40 Days from Extraction to Analysis	Days
FDRAIN-1224	12/6/24	12/7/24	1	12/13/24	6	12/24/24	17	12/24/24	17	---	---	---	---
MW-03S-1224	12/13/24	12/14/24	1	12/16/24	2	12/20/24	6	12/20/24	6	12/27/24	13	12/31/24	4
MW-10S-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-11SR-1224	12/3/24	12/5/24	2	12/9/24	4	12/10/24	5	12/10/24	5	12/27/24	22	12/31/24	4
MW-1227-1224FBW	12/3/24	12/5/24	2	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-1228-1224FBW	12/5/24	12/6/24	1	12/9/24	3	12/24/24	18	12/24/24	18	12/11/24	5	12/17/24	6
MW-1229-1224FBW	12/6/24	12/7/24	1	12/13/24	6	12/24/24	17	12/24/24	17	12/11/24	4	12/30/24	19
MW-1230-1224FBW	12/9/24	12/11/24	2	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-1231-1224FBW	12/10/24	12/11/24	1	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-1232-1224FBW	12/11/24	12/12/24	1	12/16/24	4	12/16/24	4	12/16/24	4	---	---	---	---
MW-1233-1224FBW	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-1234-1224FBW	12/12/24	12/13/24	1	12/16/24	3	12/30/24	17	12/30/24	17	12/27/24	14	12/31/24	4
MW-1235-1224FBW	12/13/24	12/14/24	1	12/16/24	2	12/19/24	5	12/19/24	5	12/27/24	13	12/31/24	4
MW-12S-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-13S-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-14S-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-15S-87-1224	12/5/24	12/6/24	1	12/9/24	3	12/23/24	17	12/24/24	18	12/11/24	5	12/17/24	6
MW-16S-1224	12/6/24	12/7/24	1	12/13/24	6	12/24/24	17	12/24/24	17	12/11/24	4	12/30/24	19
MW-17S-1224	12/6/24	12/7/24	1	12/13/24	6	12/24/24	17	12/24/24	17	12/11/24	4	12/30/24	19
MW-18S-1224	12/4/24	12/6/24	2	12/9/24	3	12/23/24	17	12/23/24	17	12/11/24	5	12/17/24	6
MW-18S-1224D	12/4/24	12/6/24	2	12/9/24	3	12/23/24	17	12/23/24	17	12/11/24	5	12/17/24	6
MW-19S-1224	12/6/24	12/7/24	1	12/13/24	6	12/24/24	17	12/24/24	17	12/11/24	4	12/30/24	19
MW-20-85S-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-22-85S-1224	12/11/24	12/13/24	2	12/16/24	3	12/30/24	17	12/30/24	17	12/27/24	14	12/31/24	4
MW-23-85S-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-26S-1224	12/5/24	12/6/24	1	12/9/24	3	12/23/24	17	12/24/24	18	12/11/24	5	12/17/24	6
MW-27S-1224	12/5/24	12/6/24	1	12/9/24	3	12/23/24	17	12/24/24	18	12/11/24	5	12/17/24	6
MW-28S-1224	12/6/24	12/7/24	1	12/13/24	6	12/24/24	17	12/24/24	17	12/11/24	4	12/30/24	19
MW-30S-1224	12/3/24	12/5/24	2	12/9/24	4	12/10/24	5	12/10/24	5	12/27/24	22	12/31/24	4
MW-31SR-1224	12/4/24	12/6/24	2	12/9/24	3	12/23/24	17	12/24/24	18	12/11/24	5	12/17/24	6
MW-33S-1224	12/10/24	12/10/24	0	12/13/24	3	---	---	---	---	---	---	---	---
MW-34S-1224	12/12/24	12/12/24	0	12/16/24	4	---	---	---	---	---	---	---	---
MW-35SR-1224	12/12/24	12/13/24	1	12/16/24	3	12/30/24	17	12/30/24	17	12/27/24	14	12/31/24	4
MW-36-1224	12/10/24	12/12/24	2	12/13/24	1	12/16/24	4	12/16/24	4	12/18/24	6	12/20/24	2
MW-36-1224D	12/10/24	12/12/24	2	12/13/24	1	12/16/24	4	12/16/24	4	12/18/24	6	12/20/24	2
MW-37-1224	12/9/24	12/11/24	2	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-38-1224	12/11/24	12/12/24	1	12/16/24	4	12/17/24	5	12/16/24	4	12/18/24	6	12/20/24	2
MW-39S-1224	12/3/24	12/5/24	2	12/9/24	4	12/10/24	5	12/10/24	5	12/27/24	22	12/31/24	4
MW-40S-1224	12/4/24	12/6/24	2	12/9/24	3	12/23/24	17	12/23/24	17	12/11/24	5	12/17/24	6
MW-41-1224	12/9/24	12/11/24	2	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-42-1224	12/10/24	12/11/24	1	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-43-1224	12/9/24	12/11/24	2	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-44-1224	12/6/24	12/7/24	1	12/13/24	6	12/24/24	17	12/24/24	17	12/11/24	4	12/30/24	19
MW-45-1224	12/3/24	12/5/24	2	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
MW-48-1224	12/12/24	12/13/24	1	12/16/24	3	12/30/24	17	12/30/24	17	12/27/24	14	12/31/24	4
MW-49-1224	12/10/24	12/12/24	2	12/16/24	4	12/16/24	4	12/16/24	4	12/18/24	6	1/3/25	16
MW-50-1224	12/10/24	12/11/24	1	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-51-1224	12/12/24	12/13/24	1	12/16/24	3	12/30/24	17	12/30/24	17	12/27/24	14	12/31/24	4
MW-52-1224	12/10/24	12/11/24	1	12/13/24	2	12/27/24	16	12/27/24	16	12/18/24	7	12/20/24	2
MW-54-1224	12/11/24	12/13/24	2	12/16/24	3	12/30/24	17	12/30/24	17	12/27/24	14	12/31/24	4
MW-55-1224	12/11/24	12/12/24	1	12/16/24	4	---	---	---	---	12/18/24	6	12/20/24	2
MW-56-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	---	---	---	---
PZ-44-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
PZ-45-1224	12/5/24	12/6/24	1	12/9/24	3	12/23/24	17	12/24/24	18	12/11/24	5	12/17/24	6
PZ-46-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	---	---	---	---
SLPWETE-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19
SLPWETW-1224	12/4/24	12/5/24	1	12/9/24	4	12/10/24	5	12/10/24	5	12/11/24	6	12/30/24	19

Key:
1. VTSR = Verified time of sample receipt

Note:
--- = Not sampled

Sample ID		Original Sample	Duplicate Sample		Original Sample	Duplicate Sample	
		MW-18S-1224	MW-1224-1224BD	Relative	MW-36-1224	MW-1225-1224BD	
Sample Location		MW-18S	MW-18S	Percent	MW-36	MW-36	Relative Percent
Sample Date		12/4/24	12/4/24	Difference[1,2] %	12/10/24	12/10/24	Difference[1,2] %
Parameter ID	Unit						
Conventionals							
Free Cyanide	mg/L	0.002U	0.002U	---	0.002U	0.002U	---
Fluoride	mg/L	16	16.2	1.2	1.93	1.97	2.1
Sulfate	mg/L	210	213	1.4	330	337	2.1
PCBs							
Aroclor 1242	µg/L	0.065U	0.065U	---	0.065U	0.065U	---
Aroclor 1248	µg/L	0.065U	0.065U	---	0.065U	0.065U	---
Aroclor 1254	µg/L	0.065U	0.065U	---	0.065U	0.065U	---
Aroclor 1260	µg/L	0.065U	0.065U	---	0.065U	0.065U	---

Notes:

1. Precision is evaluated by calculating the relative percent difference (RPD) using the following formula:

| 2 * (X1 - X2) / (X1 + X2) * 100 |

where X1 is the original sample value and X2 is the duplicate sample value.

2. --- = RPD not calculated for nondetected parameters.

Key:

U = Nondetect

--- = Not Analyzed

Sample ID Sample Date Parameter ID	Unit	MW-1227-1224FBW 12/3/24	MW-1228-1224FBW 12/5/24	MW-1229-1224FBW 12/6/24	MW-1230-1224FBW 12/9/24	MW-1231-1224FBW 12/10/24	MW-1232-1224FBW 12/11/24	MW-1233-1224FBW 12/4/24	MW-1234-1224FBW 12/12/24	MW-1235-1224FBW 12/13/24
Conventionals										
Free Cyanide	mg/L	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
Fluoride	mg/L	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.05U	0.038J	0.05U
Sulfate	mg/L	0.58J	1U	1U	1U	1U	1U	1U	0.803J	1U
PCBs										
Aroclor 1242	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---[1]	0.065U	0.065U	0.065U
Aroclor 1248	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---[1]	0.065U	0.065U	0.065U
Aroclor 1254	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---[1]	0.065U	0.065U	0.065U
Aroclor 1260	µg/L	0.065U	0.065U	0.065U	0.065U	0.065U	---[1]	0.065U	0.065U	0.065U

Note:

1. The container for this sample was received by the laboratory broken; PCB analysis could not be performed

Key:

U = Nondetect

J = Estimated

Appendix F Institutional and Engineering Controls Certification Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 645009

Site Name Reynolds Metals Company

Site Address: Route 37 Zip Code: 13662
City/Town: Massena
County: St Lawrence
Site Acreage: 112.000

Reporting Period: April 01, 2024 to April 01, 2025

	YES	NO
1. Is the information above correct?	☑	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☑
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☑
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☑
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☑

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Industrial	☑	☐
7. Are all ICs in place and functioning as designed?	☑	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____
Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 645009 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
6.003-1-1	REYNOLDS METALS COMPANY	

IC/EC controls include:

RI/FS Consent order executed 9/8/1987, RD/RA Consent order Executed 3/1/1993, Decision Documents dated 1/22/1992, 6/27/1995, and 2/5/1999.

Pursuant to the orders on consent and the decision documents the following engineering controls are required at the Reynolds Metals Company Site.

Black Mud Pond: Multi layer cover system, leachate collection/groundwater containment system, surface water runoff controls, and fencing/access control.

Industrial Landfill: Multi layer cover system, leachate collection/groundwater containment system, and surface water runoff controls, and fencing/access control.

North Yard: Cover system, groundwater collection system, and surface water runoff controls.

Potliner Storage Pad: Cover system and surface water runoff controls.

Miscellaneous Areas - Surface water runoff controls.

Wetlands and site-wide: Longterm groundwater monitoring, SPDES surface water/process water discharge monitoring, and fencing/access control.

The Consultant will certify that all controls are in place and/if any changes to current conditions have been conducted. In addition, the consultant will verify that all deed restrictions are in place and no change of use of the site has occurred.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
6.003-1-1	Groundwater Treatment System
	Cover System
	Groundwater Containment
	Leachate Collection
	Fencing/Access Control

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☑	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☑	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. 645009

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Robyn L. Gross (print name) at 201 Isabella Street, Suite 500, Pittsburgh Pa 15212 (print business address),

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

4/23/2025
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Kristin A. VanLandingham at 5976 Thornton Ln, Tallahassee, FL 32308,
print name print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)



Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

4/23/2025
Date

Appendix G Daily Precipitation Data for 2024

Appendix G
Daily Precipitation Data for 2024
2024 Periodic Review for Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	Daily Precipitation (inches)	Monthly Cumulative Precipation (inches)
1/1/2024	0	0
1/2/2024	0	0
1/3/2024	0	0
1/4/2024	0	0
1/5/2024	0	0
1/6/2024	0.03	0.03
1/7/2024	0.12	0.15
1/8/2024	0	0.15
1/9/2024	0.33	0.48
1/10/2024	0.37	0.85
1/11/2024	0.02	0.87
1/12/2024	0	0.87
1/13/2024	0.3	1.17
1/14/2024	0	1.17
1/15/2024	0	1.17
1/16/2024	0.04	1.21
1/17/2024	0	1.21
1/18/2024	0	1.21
1/19/2024	0	1.21
1/20/2024	0	1.21
1/21/2024	0	1.21
1/22/2024	0	1.21
1/23/2024	0	1.21
1/24/2024	0.2	1.41
1/25/2024	0.05	1.46
1/26/2024	0.28	1.74
1/27/2024	0	1.74
1/28/2024	0	1.74
1/29/2024	0.01	1.75
1/30/2024	0	1.75
1/31/2024	0	1.75
2/1/2024	0	0
2/2/2024	0.01	0.01
2/3/2024	0	0.01
2/4/2024	0	0.01
2/5/2024	0	0.01
2/6/2024	0	0.01
2/7/2024	0	0.01
2/8/2024	0	0.01
2/9/2024	0.13	0.14
2/10/2024	0	0.14
2/11/2024	0	0.14
2/12/2024	0	0.14
2/13/2024	0	0.14
2/14/2024	0	0.14
2/15/2024	0.03	0.17
2/16/2024	0.01	0.18
2/17/2024	0	0.18
2/18/2024	0	0.18
2/19/2024	0	0.18
2/20/2024	0	0.18
2/21/2024	0	0.18
2/22/2024	0.02	0.2
2/23/2024	0	0.2
2/24/2024	0	0.2

Appendix G
Daily Precipitation Data for 2024
2024 Periodic Review for Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	Daily Precipitation (inches)	Monthly Cumulative Precipation (inches)
2/25/2024	0	0.2
2/26/2024	0	0.2
2/27/2024	0	0.2
2/28/2024	0.25	0.45
2/29/2024	0	0.45
3/1/2024	0	0
3/2/2024	0.14	0.14
3/3/2024	0	0.14
3/4/2024	0	0.14
3/5/2024	0	0.14
3/6/2024	0.19	0.33
3/7/2024	0	0.33
3/8/2024	0	0.33
3/9/2024	0.07	0.4
3/10/2024	0.38	0.78
3/11/2024	0	0.78
3/12/2024	0	0.78
3/13/2024	0	0.78
3/14/2024	0.09	0.87
3/15/2024	0.19	1.06
3/16/2024	0.17	1.23
3/17/2024	0.28	1.51
3/18/2024	0.01	1.52
3/19/2024	0	1.52
3/20/2024	0.04	1.56
3/21/2024	0	1.56
3/22/2024	0	1.56
3/23/2024		1.56
3/24/2024	0	1.56
3/25/2024	0	1.56
3/26/2024	0	1.56
3/27/2024	0.04	1.6
3/28/2024	0	1.6
3/29/2024	0	1.6
3/30/2024	0	1.6
3/31/2024	0	1.6
4/1/2024	0	0
4/2/2024	0	0
4/3/2024	0.73	0.73
4/4/2024	0.07	0.8
4/5/2024	0.13	0.93
4/6/2024	0	0.93
4/7/2024	0	0.93
4/8/2024	0	0.93
4/9/2024	0	0.93
4/10/2024	0	0.93
4/11/2024	0.68	1.61
4/12/2024	0.25	1.86
4/13/2024	0.12	1.98
4/14/2024	0.11	2.09
4/15/2024	0.11	2.2
4/16/2024	0	2.2
4/17/2024	0	2.2
4/18/2024	0.28	2.48
4/19/2024	0.03	2.51

Appendix G
Daily Precipitation Data for 2024
2024 Periodic Review for Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	Daily Precipitation (inches)	Monthly Cumulative Precipation (inches)
4/20/2024	0.06	2.57
4/21/2024	0	2.57
4/22/2024	0	2.57
4/23/2024	0.03	2.6
4/24/2024	0.23	2.83
4/25/2024	0	2.83
4/26/2024	0	2.83
4/27/2024	0.04	2.87
4/28/2024	0.15	3.02
4/29/2024	0	3.02
4/30/2024	0.11	3.13
5/1/2024	0.01	0.01
5/2/2024	0.02	0.03
5/3/2024	0	0.03
5/4/2024	0	0.03
5/5/2024	0.43	0.46
5/6/2024	0.03	0.49
5/7/2024	0	0.49
5/8/2024	0.3	0.79
5/9/2024	0	0.79
5/10/2024	0	0.79
5/11/2024	0.12	0.91
5/12/2024	0.16	1.07
5/13/2024	0.04	1.11
5/14/2024	0.14	1.25
5/15/2024	0	1.25
5/16/2024	0	1.25
5/17/2024	0.01	1.26
5/18/2024	0	1.26
5/19/2024	0	1.26
5/20/2024	0	1.26
5/21/2024	0.04	1.3
5/22/2024	0	1.3
5/23/2024	0	1.3
5/24/2024	0	1.3
5/25/2024	0	1.3
5/26/2024	0	1.3
5/27/2024	0.29	1.59
5/28/2024	0.5	2.09
5/29/2024	0	2.09
5/30/2024	0	2.09
5/31/2024	0	2.09
6/1/2024	0	0
6/2/2024	0	0
6/3/2024	0	0
6/4/2024	0	0
6/5/2024	0	0
6/6/2024	1.05	1.05
6/7/2024	0.06	1.11
6/8/2024	0.08	1.19
6/9/2024	0.48	1.67
6/10/2024	0.08	1.75
6/11/2024	0	1.75
6/12/2024	0	1.75
6/13/2024	0.24	1.99

Appendix G
Daily Precipitation Data for 2024
2024 Periodic Review for Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	Daily Precipitation (inches)	Monthly Cumulative Precipation (inches)
6/14/2024	0.03	2.02
6/15/2024	0	2.02
6/16/2024	0	2.02
6/17/2024	0	2.02
6/18/2024	0	2.02
6/19/2024	0	2.02
6/20/2024	0.06	2.08
6/21/2024	0	2.08
6/22/2024	0.12	2.2
6/23/2024	1.23	3.43
6/24/2024	0.57	4
6/25/2024	0.02	4.02
6/26/2024	0.06	4.08
6/27/2024	0.01	4.09
6/28/2024	0	4.09
6/29/2024	0.52	4.61
6/30/2024	0	4.61
7/1/2024	0	0
7/2/2024	0	0
7/3/2024	0.4	0.4
7/4/2024	0.01	0.41
7/5/2024	0	0.41
7/6/2024	0.01	0.42
7/7/2024	0	0.42
7/8/2024	0	0.42
7/9/2024	0	0.42
7/10/2024	1.36	1.78
7/11/2024	0.68	2.46
7/12/2024	0.03	2.49
7/13/2024	0	2.49
7/14/2024	0	2.49
7/15/2024	0.72	3.21
7/16/2024	0.1	3.31
7/17/2024	0.01	3.32
7/18/2024	0	3.32
7/19/2024	0	3.32
7/20/2024	0.21	3.53
7/21/2024	0.26	3.79
7/22/2024	0.02	3.81
7/23/2024	0.07	3.88
7/24/2024	2.1	5.98
7/25/2024	0	5.98
7/26/2024	0	5.98
7/27/2024	0	5.98
7/28/2024	0	5.98
7/29/2024	0	5.98
7/30/2024	0.05	6.03
7/31/2024	0.31	6.34
8/1/2024	0	0
8/2/2024	0	0
8/3/2024	0	0
8/4/2024	0.02	0.02
8/5/2024	0.54	0.56
8/6/2024	0	0.56
8/7/2024	0	0.56

Appendix G
Daily Precipitation Data for 2024
2024 Periodic Review for Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	Daily Precipitation (inches)	Monthly Cumulative Precipation (inches)
8/8/2024	0.32	0.88
8/9/2024	3.24	4.12
8/10/2024	0	4.12
8/11/2024	0.21	4.33
8/12/2024	0	4.33
8/13/2024	0	4.33
8/14/2024	0	4.33
8/15/2024	0	4.33
8/16/2024	0	4.33
8/17/2024	0.13	4.46
8/18/2024	0.12	4.58
8/19/2024	1.28	5.86
8/20/2024	0.08	5.94
8/21/2024	0.81	6.75
8/22/2024	0.03	6.78
8/23/2024	0	6.78
8/24/2024	0	6.78
8/25/2024	0	6.78
8/26/2024	0	6.78
8/27/2024	0.01	6.79
8/28/2024	0	6.79
8/29/2024	0	6.79
8/30/2024	0	6.79
8/31/2024	0.4	7.19
9/1/2024	0.71	0.71
9/2/2024	0	0.71
9/3/2024	0	0.71
9/4/2024	0	0.71
9/5/2024	0	0.71
9/6/2024	0	0.71
9/7/2024	0.4	1.11
9/8/2024	0	1.11
9/9/2024	0	1.11
9/10/2024	0	1.11
9/11/2024	0	1.11
9/12/2024	0	1.11
9/13/2024	0	1.11
9/14/2024	0	1.11
9/15/2024	0	1.11
9/16/2024	0	1.11
9/17/2024	0	1.11
9/18/2024	0	1.11
9/19/2024	0	1.11
9/20/2024	0	1.11
9/21/2024	0	1.11
9/22/2024	0	1.11
9/23/2024	0	1.11
9/24/2024	0	1.11
9/25/2024	0.16	1.27
9/26/2024	0.08	1.35
9/27/2024	0	1.35
9/28/2024	0	1.35
9/29/2024	0	1.35
9/30/2024	0	1.35
10/1/2024	0	0

Appendix G
Daily Precipitation Data for 2024
2024 Periodic Review for Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	Daily Precipitation (inches)	Monthly Cumulative Precipation (inches)
10/2/2024	0.09	0.09
10/3/2024	0	0.09
10/4/2024	0.04	0.13
10/5/2024	0	0.13
10/6/2024	0.1	0.23
10/7/2024	0	0.23
10/8/2024	0.1	0.33
10/9/2024	0	0.33
10/10/2024	0	0.33
10/11/2024	0.03	0.36
10/12/2024	0	0.36
10/13/2024	0	0.36
10/14/2024	0.11	0.47
10/15/2024	0.1	0.57
10/16/2024	0	0.57
10/17/2024	0	0.57
10/18/2024	0	0.57
10/19/2024	0	0.57
10/20/2024	0	0.57
10/21/2024	0	0.57
10/22/2024	0	0.57
10/23/2024	0	0.57
10/24/2024	0	0.57
10/25/2024	0	0.57
10/26/2024	0	0.57
10/27/2024	0	0.57
10/28/2024	0	0.57
10/29/2024	0.4	0.97
10/30/2024	0	0.97
10/31/2024	0	0.97
11/1/2024	0.09	0.09
11/2/2024	0	0.09
11/3/2024	0	0.09
11/4/2024	0.08	0.17
11/5/2024	0.01	0.18
11/6/2024	0.03	0.21
11/7/2024	0	0.21
11/8/2024	0	0.21
11/9/2024	0	0.21
11/10/2024	0.1	0.31
11/11/2024	0.3	0.61
11/12/2024	0	0.61
11/13/2024	0	0.61
11/14/2024	0	0.61
11/15/2024	0	0.61
11/16/2024	0	0.61
11/17/2024	0	0.61
11/18/2024	0.03	0.64
11/19/2024	0	0.64
11/20/2024	0	0.64
11/21/2024	0.74	1.38
11/22/2024	0.15	1.53
11/23/2024	0	1.53
11/24/2024	0	1.53
11/25/2024	0	1.53

Appendix G
Daily Precipitation Data for 2024
2024 Periodic Review for Reynolds Metal Company, LLC
Massena East, Massena, New York
Alcoa Corporation

Date	Daily Precipitation (inches)	Monthly Cumulative Precipation (inches)
11/26/2024	0.26	1.79
11/27/2024	0	1.79
11/28/2024	0.09	1.88
11/29/2024	0.02	1.9
11/30/2024	0	1.9
12/1/2024	0.04	0.04
12/2/2024	0	0.04
12/3/2024	0	0.04
12/4/2024	0.06	0.1
12/5/2024	0.02	0.12
12/6/2024	0	0.12
12/7/2024	0.07	0.19
12/8/2024	0.02	0.21
12/9/2024	0.04	0.25
12/10/2024	0.12	0.37
12/11/2024	0.61	0.98
12/12/2024	0	0.98
12/13/2024	0	0.98
12/14/2024	0	0.98
12/15/2024	0	0.98
12/16/2024	0	0.98
12/17/2024	0.22	1.2
12/18/2024	0.19	1.39
12/19/2024	0	1.39
12/20/2024	0	1.39
12/21/2024	0	1.39
12/22/2024	0	1.39
12/23/2024	0.25	1.64
12/24/2024	0.19	1.83
12/25/2024	0	1.83
12/26/2024	0	1.83
12/27/2024	0	1.83
12/28/2024	0.01	1.84
12/29/2024	0.28	2.12
12/30/2024	0.03	2.15
12/31/2024	0	2.15

Notes:
Daily precipitation data from NOAA Station USW00094725 at the Massena International Airport, NY, USA.