

O&M, Inc.
Environmental Solutions

January 26, 2022

Ms. Charlotte Theobald
NYSDEC-Region 8
6274 East Avon-Lima Road
Avon, NY 14414

RE: 2021 Periodic Review Report
Brewer Road Landfill - Waterloo, NY
W.R. Grace & Co. - Conn.
Site No. 850001B

Dear Ms. Theobald,

Enclosed is Periodic Review Report for the Brewer Road Landfill in Waterloo, NY for the period of January to December 2021.

This submittal includes the analytical results for the groundwater samples collected, groundwater level measurements, monthly precipitation data, the quantity of leachate removed for offsite disposal, site inspection reports as well as the Institutional and Engineering Controls Certification Form.

If you have any questions about the report, please call me at (860) 987-9975 or Dave Fuerst at (865) 691-6254.

Sincerely,



Ryan Malone
Project Manager

Enclosures

CC: Dave Fuerst/O & M Inc. w/Appendices
Paul Bucens/W.R. Grace & Co. – Conn. w/Appendices
Nyce Madriaga/W.R. Grace & Co.-Conn. w/Appendices



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. **850001B**

Site Name **Evans Chemetics - Brewer Road Site**

Site Address: Brewer Road **Zip Code:** 13165

City/Town: Waterloo

County: Seneca

Site Acreage: 4.900

Reporting Period: February 10, 2021 to February 10, 2022

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?
Closed Landfill

☒ ☐

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

Description of Institutional ControlsParcelOwnerInstitutional Control

18-1-72

WR Grace & Co.- Conn.

O&M Plan

Low permeability cover: Gas venting layer, soil barrier layer, barrier protection layer, and topsoil.

Groundwater Cutoff Wall: Slurry trench method.

Leachate Collection System: Collection trench, lift station, underground storage tank, liquid level switches, submersible pumps, alarm system.

Box 4**Description of Engineering Controls**ParcelEngineering Control

18-1-72

Cover System
Leachate Collection
Subsurface Barriers
Fencing/Access Control

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 complete.

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. 850001B**

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 Paul Bucens at 7500 Grace Drive, Columbia, MD 21044,
print name 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

2/11/22
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 Michael A. Miller at 450 Montbrook Ln Knoxville, TN 37919
print name print business address

am certifying as a Professional Engineer for the W.R. Grace Co.
(Owner or Remedial Party)

Michael A. Miller

Signature of Professional Engineer, for the Owner or
Remedial Party, Rendering Certification



Stamp
(Required for PE)

1/24/22
Date

**W. R. Grace & Co. - Conn.
Brewer Road Landfill
Waterloo, NY
Site No. 850001B**

**PERIODIC REVIEW REPORT
Reporting period: January - December 2021**

I. Introduction

Site Summary

W.R. Grace & Co. – Conn. formerly owned and operated the Evans Chemetics plant in Waterloo, New York. This facility manufactured a variety of specialty chemicals used in the formulation of hair care, photopolymer, and pharmaceutical products. Between 1951 and 1958, Evans Chemetics and Zotos International disposed of off specification hair care products (which were returned by customers of Zotos International) at the Brewer Road Site.

During the time that the Brewer Road site was used for disposal, a majority of the products formulated were distributed by Zotos International. Products which did not meet quality control standards or which were returned by customers of Zotos International were also disposed of at the Brewer Road site. The disposal practices involved discarding of unopened plastic and glass containers of various Zotos International products. Later, disposal methods were modified to include the opening of plastic containers and crushing of glass containers. Disposal of these materials at the Brewer Road site was discontinued in 1958.

Site inspections were performed by the New York State Department of Environmental Conservation (NYSDEC) in 1981 and 1983. The 1983 inspection resulted in a New York State Phase I Summary Report (RECRA Research 1983) identifying the site with a Hazard Ranking System score ranging from 13.5 to 25.9. As a result, (Consent Order # B8-0033-84-07) in September 1988 specifying that a Remedial Investigation/ Feasibility Study (RI/ FS) be conducted. In March 1992 NYSDEC issued a Record of Decision (ROD) accepting the FS submitted by Evans Chemetics.

The ROD established the following goals for the remedial program in order to provide protection for human health and the environment at this Site:

- Eliminate direct contact with the waste at the site.
- Prevent migration of contaminants via groundwater.
- Prevent migration of contaminants via surface water.
- Prevent unnecessary impacts upon the wetland area.

Effectiveness of Remedial Program

The results of the monthly site inspections and the annual sampling event indicate the remedial objectives for this Site have been achieved for the 2021 reporting period.

Compliance

The Site is in compliance with the 1994 Operations and Maintenance Plan as amended by NYSDEC approved revisions to the monitoring program.

Recommendations

The remedy remains effective and there are no recommendations.

II. Site Overview

The Brewer Road property encompasses approximately 4.9 acres located in a rural area 1.5 miles northwest of the Village of Waterloo, Seneca County, New York. See **Figure 1** for the Site location map. The site is bordered on the west by Brewer Road and on the south by an auto junkyard. A small intermittent creek is located north of the site and flows to the southeast. The creek flows into the wetland area east of the site. This wetland area discharges to tributaries of Black Brook, which flows south until it enters the Seneca Cayuga Barge Canal approximately 1.5 miles south of the site.

The hydrogeology encountered beneath the site is made of the three units: there is a shallow aquifer which consists of a sand unit and acts as an unconfined aquifer; beneath that is silt and clay aquitard which acts as an obstacle slowing down groundwater moving from the shallow to the deeper aquifer; the deeper unit is a confined aquifer composed of a black and white sand unit. In the shallow aquifer, water is encountered at a depth of four to eight feet below ground surface. The shallow groundwater flows eastward, toward the wetland area, and during periods of elevated groundwater levels discharges to the surface water within the wetland. The deeper aquifer is encountered at a depth of approximately thirty to thirty-five feet below the ground surface. The groundwater in the deeper zone flows generally to the south.

In September 1981, a site inspection of the Brewer Road landfill was conducted by the NYSDEC. This site investigation revealed bottles, tubes and drums scattered on the ground surface. The initial inspection was followed by a second site inspection in June 1983. Following the 1983 site inspection, RECRA Research prepared a Phase I Report of the Brewer Road site. Based on the limited amount of information available during the preparation of the Phase I Report, a more detailed Phase II investigation of the property was deemed necessary by the NYSDEC.

In 1984, Evans Chemetics voluntarily entered into an Administrative Order on Consent with the NYSDEC for a Phase II Investigation at the Brewer Road site. The purpose of this investigation was to assess whether the site posed an existing or potential environmental impact, and to evaluate the extent and magnitude of any unidentified contamination.

Results of the Phase II Investigation revealed that the fill material was generally confined to a north-south trending embankment near the center of the site. The fill material consists of broken bottles, plastic tubes and a few 55-gallon drums which contain a solid residue.

Analyses of the soil samples collected as part of the Phase II Investigation identified both heavy metals and base/neutral priority pollutants on the landfill face and down slope from the landfill.

Based on the findings of the Phase II Investigation, NYSDEC reclassified the site from a 2a to a 2 which meant that the site was considered a “significant threat to the public health or environment-action required.” Subsequent to the reclassification, the NYSDEC required that a Remedial Investigation/Feasibility Study (RI/FS) be completed.

In September 1988 Evans Chemetics entered into a Consent Order to perform an RI/FS at the site. The field work for the RI was carried out during the late summer and early fall 1989. The results of the samples, taken during the Remedial Investigation indicated the presence of some volatile organics, semi-volatile organics, and metals.

The potential exposure pathways, by which public health and the environment could be impacted, include:

- Migration of contaminants via groundwater to domestic wells in the area.
- Migration of contaminants via surface water and impacting the wetland environment.
- Direct contact to contaminants at the landfill.

The nearest residence using groundwater near the site is located approximately one-quarter mile south and southwest of the site, and these residential wells are generally drawing water from the deeper aquifer. The aquitard below the shallow aquifer is preventing the limited amount of contamination present in the shallow groundwater from readily migrating downward.

The analytical results from the RI indicate that there has been very little migration of contaminants from the landfill. The only potential risk posed by the site involves coming in direct contact with the waste material. In addition, there has been very little migration from the site.

The selected remedy for the Site was presented in the Record of Decision, dated March 1992. The remedy was designed by O’Brien & Gere Engineers, Inc. in 1992 and was constructed between May and September 1993 by Severson Environmental Corp. The remedy included:

- ◆ A clay cap installed in accordance with New York Code of Rules and Regulations (NYCRR) Part 360 to eliminate direct contact and reduce the amount of leachate being generated by the infiltration of incident precipitation.
- ◆ A circumferential ground water cutoff wall, installed using slurry methods around the landfill. The ground water cutoff wall is tied into subsurface clay layer and acts to prevent the lateral movement of ground water through the landfill, resulting in a reduction in the amount of leachate generated.
- ◆ A leachate collection trench installed down gradient of the landfill to collect generated leachate. The collected leachate is stored in an on-site underground storage tank and periodically removed for off-site treatment.

- ◆ A berm installed down gradient of the leachate collection trench keyed into the subsurface layer. The berm prevents the backup of water from an adjacent wetland into the clay cap.
- ◆ A chain link fence installed around the site to limit access.

See **Figure 2** for a Site Plan.

III. Evaluation of Remedy Performance, Effectiveness, and Protectiveness

The 1994 Operations and Maintenance Plan as amended by NYSDEC approved revisions to the monitoring program confirmed by NYSDEC letters dated August 2, 2000 and August 24, 2001 provide the requirements for inspection and monitoring of the Site.

Groundwater Monitoring

The annual groundwater level measurements and groundwater sampling was performed on October 13, 2021. The groundwater samples were analyzed for volatile organic compounds (VOCs) and total metals including manganese, magnesium, and zinc. Overall, the water quality is consistent with prior years.

Groundwater sampling was conducted at monitoring wells, MW-1S, (MW-1S is up-gradient of the landfill), MW-2S, MW-2D, MW-3, MW-4S, and MW-4D on October 13, 2021. With the NYSDEC's approval (correspondence dated March 18, 1996); the requirements in the "Data Collection Quality Assurance Plan" (Appendix B of O & M Manual) were modified per Grace's request of December 1995. Changes to the sampling and analysis program approved by NYSDEC in correspondence dated August 2, 2000, and August 24, 2001, include annual groundwater sampling in the fall using EPA method 601/602 for volatile organics, a reduction in the metals analyte list to manganese, magnesium and zinc, and reduction in water level monitoring from quarterly to annual with the groundwater sampling event. EPA Method 624.1 was used to analyze the groundwater samples.

The VOC results are presented in **Table 1**. All monitoring wells, with the exception of MW-2S and MW-3, resulted in levels below the reporting limit for analytical method 624.1. MW-2S contained Total 1,2 DCE at 21 ug/L and MW-3 contained Total 1,2 DCE at 29 ug/L (the standard for each of cis- and trans- 1,2-DCE is 5 ug/L). Trichloroethylene (TCE) was present at these two wells at an estimated ("J" qualified) concentration of 0.98 J ug/L and 1.9 J ug/L, respectively.

The total metals are presented in **Table 2**. Magnesium results ranged from 15.8 mg/L to 46.9 mg/L. MW-2S (46.9 mg/L) and MW-3 (46.8 mg/L) exceeded the NYS water quality standard (35 mg/L) for magnesium. Zinc concentrations ranged from 0.013 mg/L to 2.0 mg/L with none of the samples above the NYS Class water quality standard of 5 mg/L. Manganese concentrations ranged from 0.011 B mg/L to 0.54 B mg/L. MW-1S (0.51 B mg/L), MW-2S (0.54 B mg/L), MW-3 (0.37 B mg/L), and MW-4S (0.45 B mg/L) exceeded the NYS groundwater standard of 0.3 mg/L for Manganese.

Copies of the Analytical Reports are included in **Appendix A**. Please refer to the Definitions/Glossary page (page 3) of the attached Analytical Reports for a description of the qualifiers.

Groundwater Level Measurements

Figure 3 summarizes water level measurement data from October 1994 through October 2021. The 2021 data is included in **Appendix B**.

Leachate Generation

From January to December 2021, 222,000 gallons of leachate were taken off-site for disposal to the City of Auburn Wastewater Treatment Facility.

Precipitation

Precipitation for the Syracuse airport (NOAA station 14771) from Jan 2011 to December 2021 is presented in **Figure 4** and indicates total precipitation and snowfall totals.

Site Inspections

Site inspections have indicated no problems with the cap, or the groundwater cut off wall. The site inspection checklists are included as **Appendix C**.

IV. Conclusions and Recommendations

The results of the monthly site inspections and the annual sampling event indicate the remedial objectives for this site have been achieved for the 2021 reporting period.

The Site is in compliance with the 1994 Operations and Maintenance Plan as amended by the NYSDEC approved revisions to the monitoring program.

The remedy remains effective and there are no recommendations.

A PRR will be submitted for the 2022 reporting period.

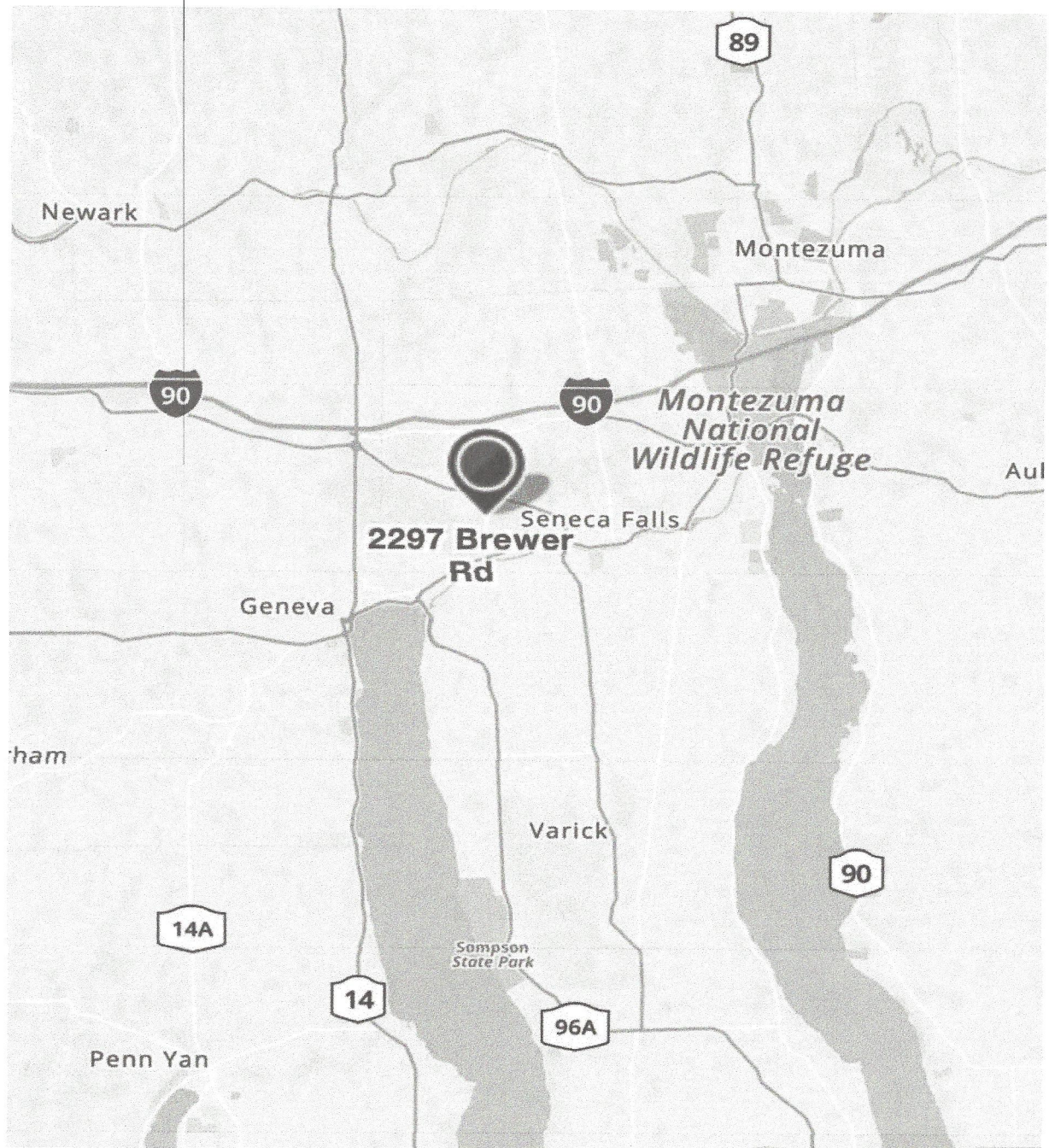
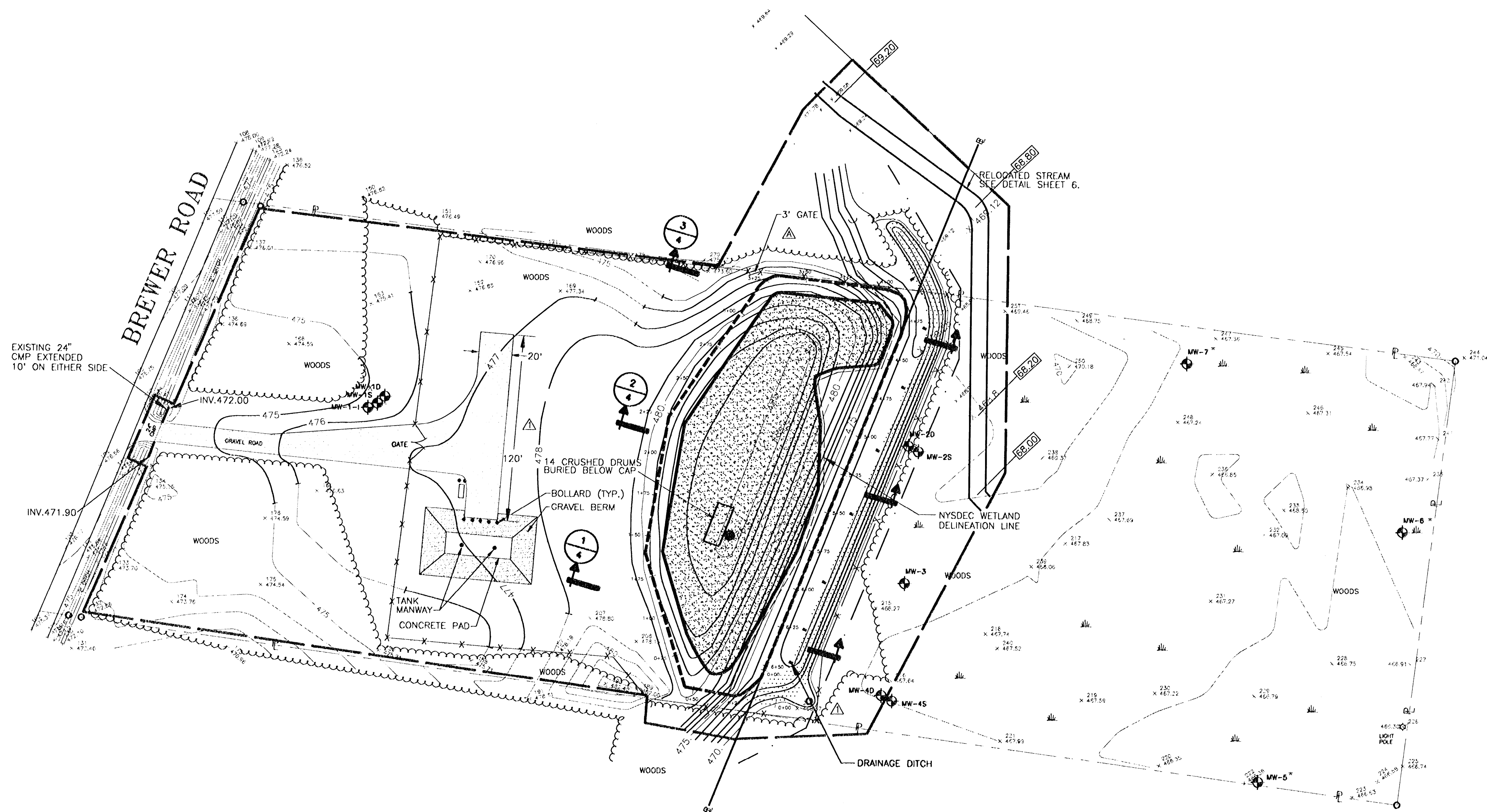


Figure 1 Site Location



CUT OFF WALL		
STA.	NORTH	EAST
0+00	302.88	722.39
0+25	287.08	704.58
0+50	291.45	679.65
1+50	383.66	651.16
2+25	457.50	663.69
3+25	539.64	720.79
3+50	540.62	745.57
4+00	534.89	795.26
4+25	515.60	805.64
5+50	398.46	760.21
6+52.8	302.88	722.39
BM 1	543.50	402.75
BM 2	495.50	656.63

- LEGEND**
- EXISTING CONTOUR
 - PROPOSED CONTOUR
 - NYSDEC WETLAND DELINEATION LINE
 - PROPOSED SPOT ELEVATION
 - EXISTING SPOT ELEVATION
 - WETLANDS
 - PROPERTY LINE
 - EXISTING MONITORING WELL
 - EDGE OF WOODS
 - LIMIT OF WORK
 - APPROXIMATE EDGE OF FILL
 - GROUND WATER CUT OFF WALL
 - SILT FENCE
 - HAY BALE, EROSION PROTECTION
 - FILL AREA
 - BERM AREA
 - SECURITY FENCE
 - GROUND WATER CUT OFF WALL STATIONING
 - GAS VENT
 - MW-5, -6, and -7 are not included in the monitoring program. The wells could not be located in May 2020 and are assumed to have been abandoned during remedy construction.

NOTE: MAPPING PREPARED FROM TOPOGRAPHIC SURVEY PREPARED BY C.T. MALE ASSOCIATES, P.C. 200 GATEWAY PARK DRIVE, P.O. BOX 3246 SYRACUSE N.Y. 13220

It is a violation of law for any person unless he is acting under the direction of a licensed professional engineer to alter this document.

This drawing was prepared at the scale indicated in the title block. Inaccuracies in the stated scale may be introduced when drawings are reproduced by any means. Use the graphic scale bar in the title block to determine the actual scale of this drawing.

In charge of *[Signature]*
Designed by *[Signature]* Checked by *[Signature]*
Drawn by *[Signature]*

1"=40'-0"

4/11/94	RECORD DRAWING	INIT.
4/93	AS BID	INIT.
1/93	GENERAL REVISIONS	INIT.
NO.	DATE	REVISION



W.R. GRACE & CO. - CONN.
WATERLOO, NEW YORK
REMEDIAL DESIGN

FINAL GRADING PLAN

RECORD DRAWINGS
To the best of our knowledge, information and belief, these record drawings substantially represent the project as constructed.
O'BRIEN & GERE
ENGINEERS, INC.
By: *[Signature]*

FILE NO.	1043.014-03RD
DATE	APRIL 11, 1994

2

R-3

FIGURE 3: Water Level Elevations

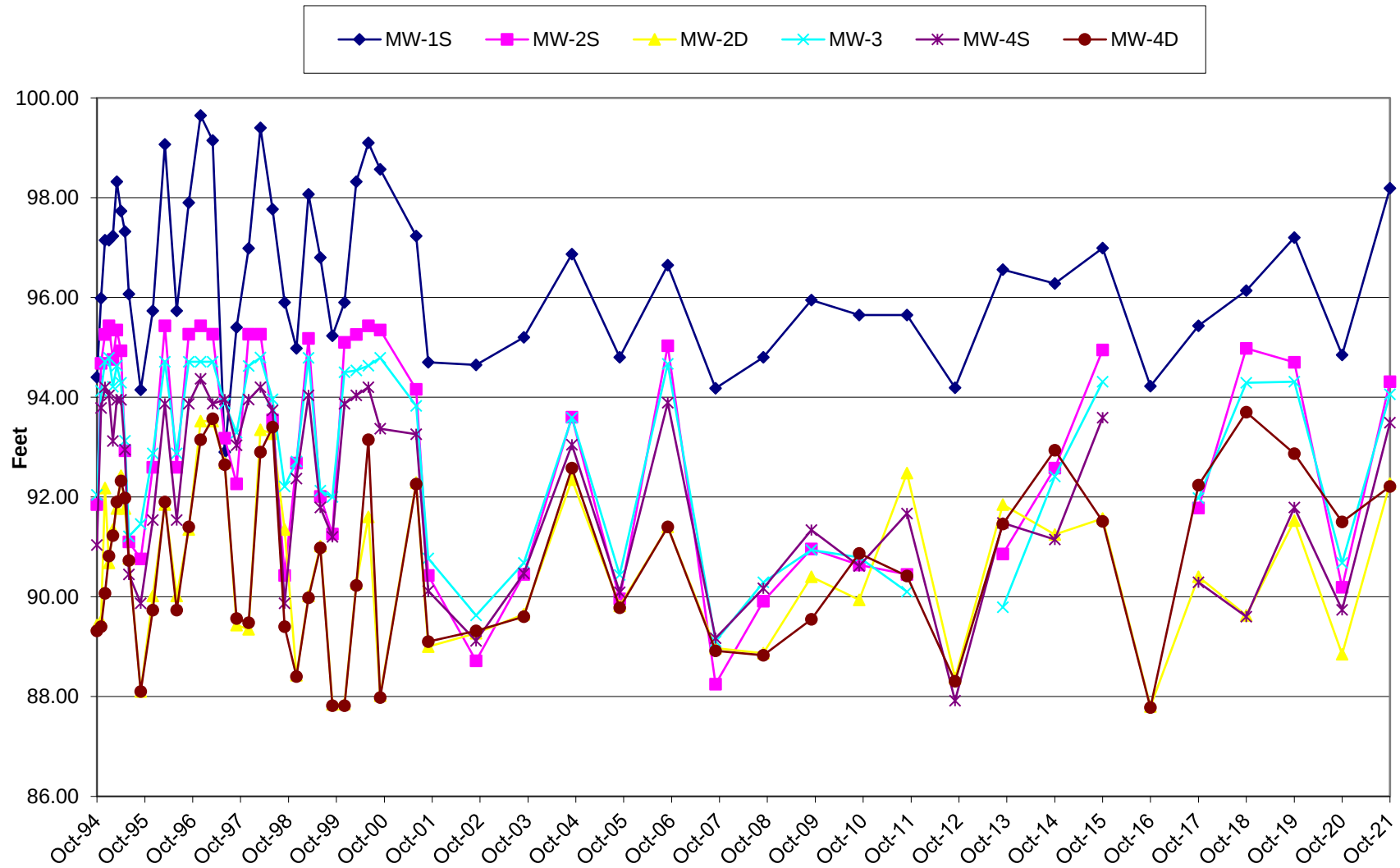


FIGURE 4: Precipitation and Snowfall amounts 2011-2021

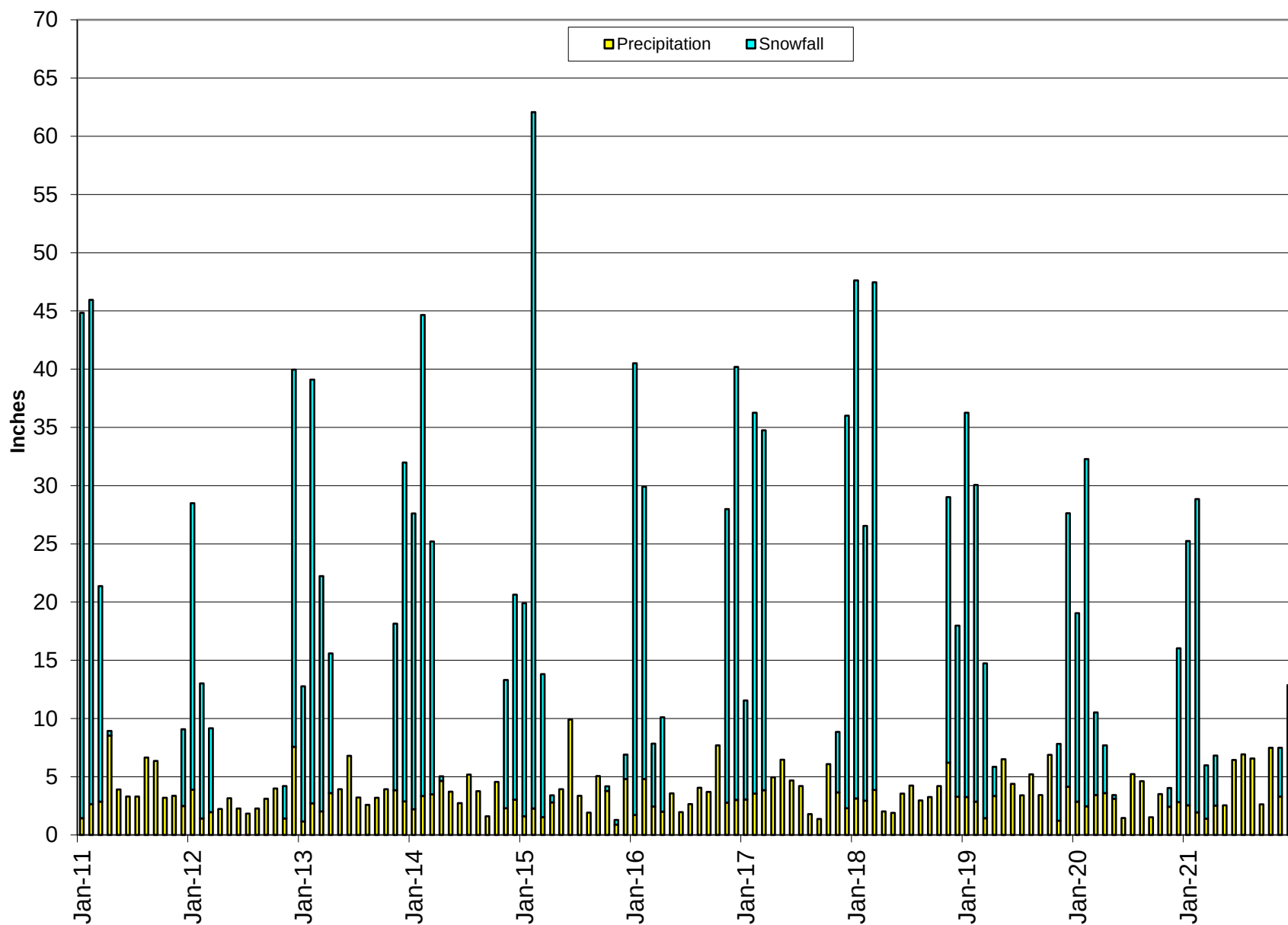


TABLE 1 - GROUNDWATER ANALYTICAL RESULTS-BREWER ROAD SITE, WATERLOO, NY
(Volatiles in ug/l)

Well	Date Analyzed	Vinyl Chloride (ug/L)	Total-1,2-DCE (ug/L)	Toluene (ug/L)	Chloroform (ug/L)	Trichloroethylene (ug/L)	Tetrachloroethylene (ug/L)
MW-1S	10/4/1989	<10	<5	1 J	<5	<5	<5
	4/18/1990	<1	<1	<1	<1	<1	<1
	4/10/1994	<1	<1	<1	<1	<1	<1
	9/28/1994	<1	<1	<1	<1	<1	<1
	4/5/1995	<1	<1	<1	<1	<1	<1
	9/30/1995	<1	<1	<1	<1	<1	<1
	3/25/1996	<1	<1	<1	<1	<1	<1
	9/26/1996	<1	<1	<1	<1	<1	<1
	3/16/1997	<1	<1	<1	<1	<1	<1
	9/17/1997	<1	<1	<1	<1	<1	<1
	3/26/1998	<1	<1	<1	<1	<1	<1
	9/24/1998	<1	<1	<1	<1	<1	<1
	3/17/1999	<1	<1	<1	<1	<1	<1
	9/29/1999	<1	<1	<1	<1	<1	<1
	3/16/2000	<1	<1	<1	<1	<1	<1
	9/30/2000	<1	<1	<1	<1	<1	<1
	9/11/2001	<1	<1	<1	<1	<1	<1
	9/3/2002	<1	<1	<1	<1	<1	<1
	9/23/2003	<1	<1	<1	<1	<1	<1
	9/8/2004	<1	<1	<1	<1	<1	<1
	9/13/2005	<1	<1	<1	<1	<1	<1
	9/15/2006	<1	<1	<1	<1	<1	<1
	9/13/2007	<1	<1	<1	<1	<1	<1
	9/25/2008	<10	<5	<5	<5	<5	<5
	9/24/2009	<10	<5	<5	<5	<5	<5
	9/14/2010	<10	<5	<5	<5	<5	<5
	9/27/2011	<10	<6	0.18	<5	<5	<5
	9/27/2012	<2	<2	<1	<1	<1	<1
	9/11/2013	<2	<2	<1	<1	<1	<1
	10/24/2014	<2	<2	<1	<1	<1	<1
	10/27/2015	<5	<10	<5	<5	<5	<5
	10/20/2016	<5	<10	<5	<5	<5	<5
	10/3/2017	<5	<10	<5	<5	<5	<5
	10/29/2018	<5	<10	<5	<5	<5	<5
	10/22/2019	<5	<10	<5	<5	<5	<5
	10/28/2020	<5	70	<5	<5	2.7 J	<5
	2/23/2021 ¹	<5	<10	<5	<5	<5	<5
	10/13/2021	<5	<10	<5	<5	<5	<5

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS-BREWER ROAD SITE, WATERLOO, NY
(Volatiles in ug/l)

Well	Date Analyzed	Vinyl Chloride (ug/L)	Total-1,2-DCE (ug/L)	Toluene (ug/L)	Chloroform (ug/L)	Trichloroethylene (ug/L)	Tetrachloroethylene (ug/L)
MW-2S	10/5/1989	2J	170	1JB	<5	6	<5
	4/18/1990	<1	29	<1	<1	<1	<1
	4/10/1994	<1	14	<1	<1	<1	<1
	9/28/1994	<10	160	<10	<10	<10	<10
	4/5/1995	<1.	69	<1	<1	3	<1
	10/2/1995	<10	180	<10	<10	<10	<10
	3/25/1996	<1	11	<1	<1	<1	<1
	9/26/1996	<1	2	<1	<1	<1	<1
	3/16/1997	<1	45	<1	<1	1	<1
	9/17/1997	<10	182	<10	<10	<10	<10
	3/26/1998	<1	12	<1	<1	<1	<1
	9/24/1998	3	165	<2	<2	<2	<2
	3/17/1999	<1	2	<1	<1	<1	<1
	9/29/1999	8	89	<1	<1	<1	<1
	3/16/2000	<1	<1	<1	<1	<1	<1
	9/30/2000	3	116	<1	<1	2	<1
	9/11/2001	24	102	<2	<2	<2	<2
	9/3/2002	5	40	<1	<1	<1	<1
	9/23/2003	3	114	<1	<1	2	<1
	9/8/2004	2.2	116	<1	<1	3.8	<1
	9/13/2005	4.26	77.9	<1	<1	<2	<1
	9/15/2006	<2	32	<1	<1	1.24	<1
	9/13/2007- DRY	-	-	-	-	-	-
	9/25/2008- DRY	-	-	-	-	-	-
	9/24/2009	2J	91	<5	<5	4.3 J	<5
	9/14/2010	4.3	99	<5	<5	4.3 J	<6
	9/27/2011	3.6 J	150	0.17J B	<5	4.6 J	<5
	9/27/2012	dry	dry	dry	dry	dry	dry
	9/11/2013	0.91 J	70.4	<1	<1	2.6	<1
	10/24/2014	0.51 J	60.5	<1	<1	2.9	<1
	10/27/2015	<5	23	<5	<5	0.90 J	<5
	10/20/2016-DRY	dry	dry	dry	dry	dry	dry
	10/3/2017	<5	43	<5	<5	1.8 J	<5
	10/29/2018	<5	4.6 J	<5	<5	<5	<5
	10/22/2019	<5	4.4 J	<5	<5	<5	<5
	10/28/2020	<5	69	<5	<5	2.7 J	<5
	2/23/2021 ¹	<5	<10	<5	<5	<5	<5
	10/13/2021	<5	21	<5	<5	0.98 J	<5

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS-BREWER ROAD SITE, WATERLOO, NY
(Volatiles in ug/l)

Well	Date Analyzed	Vinyl Chloride (ug/L)	Total-1,2-DCE (ug/L)	Toluene (ug/L)	Chloroform (ug/L)	Trichloroethylene (ug/L)	Tetrachloroethylene (ug/L)
MW-2D	10/4/1989	<10	<5	<5	<5	<5	<5
	4/18/1990	<1	<1	<1	<1	<1	<1
	4/10/1994	<1	<1	<1	<1	<1	<1.
	4/5/1995	<1	<1	<1	1	<1	<1.
	3/25/1996	<1	<1	<1	<1	<1	<1.
	3/16/1997	<1	<1	<1	<1	<1	<1
	3/26/1998	<1	<1	<1	<1	<1	<1
	3/17/1999	<1	<1	<1	<1	<1	<1
	9/29/1999	<1	<1	<1	<1	<1	<1
	3/16/2000	<1	<1	<1	<1	<1	<1
	9/30/2000	<1	<1	<1	<1	<1	<1
	9/11/2001	<1	<1	<1	<1	<1	<1
	9/3/2002	<1	<1	<1	<1	<1	<1
	9/23/2003	<1	<1	<1	<1	<1	<1
	9/8/2004	<1	<1	<1	<1	<1	<1
	9/13/2005	<1	<1	<1	<1	<1	<1
	9/15/2006	<1	<1	<1	<1	<1	<1
	9/13/2007	<1	<1	<1	<1	<1	<1
	9/25/2008	<10	<5	<5	<5	<5	<5
	9/24/2009	<10	<5	<5	<5	<5	<5
	9/14/2010	<10	<5	<5	<5	<5	<5
	9/27/2011	<10	<5	<5	<5	<5	<5
	9/27/2012	<2	<2	<1	<1	<1	<1
	9/11/2013	<2	<2	<1	<1	<1	<1
	10/24/2014	<2	<2	<1	<1	<1	<1
	10/27/2015	<5	<10	<5	<5	<5	<5
	10/20/2016	<5	<10	<5	<5	<5	<5
	10/3/2017	<5	<10	<5	<5	<5	<5
	10/29/2018	<5	<10	<5	<5	<5	<5
	10/22/2019	<5	<10	<5	<5	<5	<5
	10/28/2020	<5	<10	<5	<5	<5	<5
	10/13/2021	<5	<10	<5	<5	<5	<5

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS-BREWER ROAD SITE, WATERLOO, NY
(Volatiles in ug/l)

Well	Date Analyzed	Vinyl Chloride (ug/L)	Total-1,2-DCE (ug/L)	Toluene (ug/L)	Chloroform (ug/L)	Trichloroethylene (ug/L)	Tetrachloroethylene (ug/L)
MW-3	10/4/1989	<10	34	<5	<5	17	<5
	4/18/1990	<1	<1	<1	<1	<1	<1
	4/10/1994	<1	<1	<1	<1	<1	<1
	9/28/1994	<1	7	<1	<1	4	<1
	4/5/1995	<1	4	<1	<1	3	<1
	9/30/1995	<1	11	<1	<1	4	<1
	3/25/1996	<1	<1	<1	<1	<1	<1
	9/26/1996	<1	1	<1	<1	2	<1
	3/16/1997	<1	1	<1	<1	1	<1
	9/17/1997	<1	6	<1	<1	4	<1
	3/26/1998	<1	<1	<1	<1	1	<1
	9/24/1998	<1	5	<1	<1	4	<1
	3/17/1999	<1	<1	<1	<1	<1	<1
	9/29/1999	<1	3	<1	<1	6	<1
	3/16/2000	<1	<1	<1	<1	<1	<1
	9/30/2000	<1	5	<1	<1	5	<1
	9/11/2001	<1	5	<1	<1	3	<1
	9/3/2002	<1	<1	<1	<1	<1	<1
	9/23/2003	<1	4	<1	<1	4	<1
	9/8/2004	<1	<1	<1	<1	1.8	<1
	9/13/2005	<1	5.94	<1	<1	2.69	<1
	9/15/2006	<1	<1	<1	<1	<1	<1
	9/13/2007	-	-	-	-	-	-
	9/25/2008	<9	6.5 J	<5	<5	3.7 J	<4
	9/24/2009	0.21J	7.2	<5	<5	3.9 J	<5
	9/14/2010	<10	8	<5	<5	<5	<5
	9/27/2011	<10	5.8	<5	<5	5.6	<6
	9/27/2012	dry	dry	dry	dry	dry	dry
	9/11/2013	<2	9	<1	<1	5.8	<1
	10/24/2014	<2	10.8	<1	<1	4.7	<1
	10/27/2015	<5	<10	<5	<5	<5	<5
	10/20/2016	dry	dry	dry	dry	dry	dry
	10/3/2017	<5	29.0	<5	<5	8.3	<5
	10/29/2018	<5	<10	<5	<5	<5	<5
	10/22/2019	<5	<10	<5	<5	<5	<5
	10/28/2020	<5	35	<5	<5	4.7 J	<5
	10/13/2021	<5	29	<5	<5	1.9 J	<5

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS-BREWER ROAD SITE, WATERLOO, NY
(Volatiles in ug/l)

Well	Date Analyzed	Vinyl Chloride (ug/L)	Total-1,2-DCE (ug/L)	Toluene (ug/L)	Chloroform (ug/L)	Trichloroethylene (ug/L)	Tetrachloroethylene (ug/L)
MW-4S	10/4/1989	<10	<10	<5	<5	<5	2J
	4/18/1990	<1	<1	<1	<1	<1	<1
	4/10/1994	<1	<1	<1	<1	<1	<1
	9/28/1994	<1	<1	<1	<1	<1	<1
	4/5/1995	<1	<1	<1	<1	<1	<1
	9/30/1995	<1	<1	<1	<1	<1	<1
	3/25/1996	<1	<1	<1	<1	<1	<1
	9/26/1996	<1	<1	<1	<1	<1	<1
	3/16/1997	<1	<1	<1	<1	<1	<1
	9/17/1997	<1	<1	<1	<1	<1	<1
	3/26/1998	<1	<1	<1	<1	<1	<1
	9/24/1998	<1	<1	<1	<1	<1	<1
	4/12/1999	<1	<1	<1	<1	<1	<1
	9/29/1999	<1	<1	<1	<1	<1	<1
	3/16/2000	<1	<1	<1	<1	<1	<1
	9/30/2000	<1	<1	<1	<1	<1	<1
	9/11/2001	<1	<1	<1	<1	<1	<1
	9/3/2002	<1	<1	<1	<1	<1	<1
	9/23/2003	<1	<1	<1	<1	<1	<1
	9/8/2004	<1	<1	<1	<1	<1	<1
	9/13/2005	<1	<1	<1	<1	<1	<1
	9/15/2006	<1	<1	<1	<1	<1	<1
	9/13/2007	<1	<1	<1	<1	<1	<1
	9/25/2008	<10	<5	<5	<5	<5	<5
	9/24/2009	<10	<5	<5	<5	<5	<5
	9/14/2010	<10	<5	<5	<5	<5	<5
	9/27/2011	<10	<5	<5	<5	<5	<5
	9/27/2012	<2	<2	<1	<1	<1	<1
	9/11/2013	<2	<2	<1	<1	<1	<1
	10/24/2014	<2	<2	<1	<1	<1	<1
	10/27/2015	<5	<10	<5	<5	<5	<5
	10/20/2016-DRY	dry	dry	dry	dry	dry	dry
	10/3/2017	<5	<10	<5	<5	<5	<5
	10/29/2018	<5	<10	<5	<5	<5	<5
	10/22/2019	<5	<10	<5	5	<5	<5
	10/28/2020	<5	<10	<5	<5	<5	<5
	10/13/2021	<5	<10	<5	<5	<5	<5

TABLE 1 - GROUNDWATER ANALYTICAL RESULTS-BREWER ROAD SITE, WATERLOO, NY
(Volatiles in ug/l)

Well	Date Analyzed	Vinyl Chloride (ug/L)	Total-1,2-DCE (ug/L)	Toluene (ug/L)	Chloroform (ug/L)	Trichloroethylene (ug/L)	Tetrachloroethylene (ug/L)
MW-4D	10/4/1989	<10	<5	1J	<5	<5	<5
	4/18/1990	<1	<1	NA	<1	<1	<1
	4/10/1994	<1	<1	<1	<1	<1	<1.
	4/5/1995	<1	<1	<1	<1	<1	<1
	3/25/1996	<1	<1	<1	<1	<1	<1
	3/16/1997	<1	<1	<1	<1	<1	<1
	3/26/1998	<1	<1	<1	<1	<1	<1
	3/17/1999	<1	<1	<1	<1	<1	<1
	9/29/1999	<1	<1	<1	<1	<1	<1
	3/16/2000	<1	<1	<1	<1	<1	<1
	9/30/2000	<1	<1	<1	<1	<1	<1
	9/11/2001	<1	<1	<1	<1	<1	<1
	9/3/2002	<1	<1	<1	<1	<1	<1
	9/23/2003	<1	<1	<1	<1	<1	<1
	9/8/2004	<1	<1	<1	<1	<1	<1
	9/13/2005	<1	<1	<1	<1	<1	<1
	9/15/2006	<1	<1	<1	<1	<1	<1
	9/13/2007	<1	<1	<1	<1	<1	<1
	9/25/2008	<10	<5	<5	<5	<5	<5
	9/24/2009	<10	<5	<5	<5	<5	<5
	9/14/2010	<10	<5	<5	<5	<5	<5
	9/27/2011	<10	<5	<5	<5	<5	<5
	9/27/2012	<2	<2	<1	<1	<1	<1
	9/11/2013	<2	<2	<1	<1	<1	<1
	10/24/2014	<2	<2	<1	<1	<1	<1
	10/27/2015	<5	<10	<5	<5	<5	<5
	10/20/2016	<5	<10	<5	<5	<5	<5
	10/3/2017	<5	<10	<5	<5	<5	<5
	10/29/2018	<5	<10	<5	<5	<5	<5
	10/22/2019	<5	<10	<5	<5	<5	<5
	10/28/2020	<5	<10	<5	<5	<5	<5
	10/13/2021	<5	<10	<5	<5	<5	<5

Qualifiers:

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

¹ Monitoring well was resampled on February 23, 2021 to confirm results from the October 28, 2020 sampling.

TABLE 2
GROUNDWATER ANALYTICAL RESULTS, BREWER ROAD SITE, WATERLOO,
NY - UNFILTERED METALS
 (Units in mg/l)

Sample ID	Analyzed	Magnesium (mg/L)	Manganese (mg/L)	Zinc (mg/L)
MW-1S	10/3/1989	15.2	577	24
	4/18/1990	15.0	510	90
	4/14/1994	<5	0.015	<0.02
	9/29/1994	8.0	0.91	0.08
	3/28/1995	5.0	0.063	<0.02
	10/6/1995	22.0	0.54	0.03
	3/25/1996	7.0	0.27	0.02
	9/19/1996	10.0	0.28	0.02
	3/16/1997	6.0	0.018	<0.02
	9/17/1997	13.0	0.11	<0.02
	3/18/1998	7.0	0.15	<0.04
	9/24/1998	13.0	0.13	0.02
	3/17/1999	<5	<0.15	<0.02
	9/29/1999	15.0	0.19	<0.02
	3/16/2000	10.0	0.057	<0.02
	9/26/2000	17.0	1.1	0.07
	9/13/2001	19.0	0.31	<0.02
	9/3/2002	14.0	0.13	0.01
	9/23/2003	24.0	0.47	0.026
	9/8/2004	18.0	0.35	0.02
	9/13/2005	20.0	0.24	0.015
	9/15/2006	12.0	0.49	0.051
	9/13/2007	11.0	0.067	<0.020
	9/25/2008	13.0	0.071	<0.04
	9/24/2009	15.0	0.195	0.0061 J
	9/14/2010	13.8	0.13	0.05
	9/27/2011	14.9	0.59	0.013
	9/27/2012	12.2	0.12	<0.010
	9/11/2013	11.7	0.06	<0.010
	10/24/2014	50.4	1.3	0.11
	10/27/2015	12.2	0.33	0.0025 J
	10/20/2016	14.6	1.2 B	0.022
	10/3/2017	16.7	1.5	0.0097 J
	10/29/2018	18.8	1.2	0.044 B
	10/22/2019	20.4	1.2 B	0.033 B
	10/28/2020	66.5	2.4 B	0.11
	10/13/2021	15.8	0.51 B	0.021

TABLE 2
GROUNDWATER ANALYTICAL RESULTS, BREWER ROAD SITE, WATERLOO,
NY - UNFILTERED METALS
(Units in mg/l)

Sample ID	Analyzed	Magnesium (mg/L)	Manganese (mg/L)	Zinc (mg/L)
MW-2S	10/4/1989	35.0	1,120	135
	4/18/1990	19.0	2,300	30
	4/14/1994	17.	0.54	0.02
	9/29/1994	37.0	0.64	0.36
	3/28/1995	17.0	0.57	0.03
	10/6/1995	29.0	0.42	0.04
	3/25/1996	29.0	0.9	0.02
	9/19/1996	38.0	0.25	0.02
	3/16/1997	37.0	0.42	0.14
	9/17/1997	32.0	0.45	0.03
	3/18/1998	41.0	0.44	0.02
	9/24/1998	33.0	0.47	0.05
	3/17/1999	39.0	0.16	<0.02
	9/29/1999	50.0	0.38	<0.02
	3/16/2000	55.0	0.9	<0.02
	9/26/2000	54.0	1.5	0.03
	9/13/2001	45.0	0.72	0.03
	9/3/2002	62.0	1.6	0.1
	9/23/2003	51.0	0.9	0.064
	9/8/2004	66.0	1.4	0.085
	9/13/2005	50.0	0.96	0.061
	9/15/2006	46.0	0.82	0.074
	9/13/2007-DRY	-	-	-
	9/25/2008-DRY	-	-	-
	9/24/2009	45.5	0.619	0.0088 J
	9/14/2010	54.9	0.982	0.0694
	9/27/2011	44.6	0.72	0.0084
	9/27/2012-DRY	-	-	-
	9/11/2013	42.4	0.79	0.017
	10/24/2014	43.5	0.37	.0057 J
	10/27/2015	44.0	0.02	0.042
	10/20/2016-DRY	Dry	Dry	Dry
	10/3/2017	45.4	0.55	0.0096 J
	10/29/2018	47.3	0.2	0.018 B
	10/22/2019	44.4	0.50 B	0.028 B
	10/28/2020	49.7	0.87 B	0.087
	10/13/2021	46.9	0.54 B	0.036

TABLE 2
GROUNDWATER ANALYTICAL RESULTS, BREWER ROAD SITE, WATERLOO,
NY - UNFILTERED METALS
(Units in mg/l)

Sample ID	Analyzed	Magnesium (mg/L)	Manganese (mg/L)	Zinc (mg/L)
MW-2D	10/4/1989	62.1	984	116
	4/18/1990	19.0	<50	20
	4/14/1994	20.0	0.058	<0.02
	3/28/1995	17.0	<0.015	<0.02
	3/25/1996	20.0	0.02	0.03
	3/16/1997	20.0	<0.015	<0.02
	3/18/1998	22.0	<0.018	<0.02
	3/17/1999	23.0	0.017	<0.02
	9/29/1999	37.0	0.280	0.04
	3/16/2000	23.0	0.022	<0.02
	9/26/2000	34.0	0.28	0.08
	9/13/2001	23.0	0.03	<0.02
	9/3/2002	23.0	<0.05	<0.01
	9/23/2003	22.0	<0.05	<0.01
	9/8/2004	14.0	<0.05	<0.01
	9/13/2005	14.0	<0.015	<0.01
	9/15/2006	15.0	<0.050	0.03
	9/13/2007	22.0	<0.050	<0.02
	9/25/2008	22.0	0.02	0.008 J
	9/24/2009	17.6	0.0068 J	<0.025
	9/14/2010	22.1	0.0128	0.05
	9/27/2011	23.6	0.03	0.0056
	9/27/2012	21.4	<0.0025	<0.010
	9/11/2013	14.3	0.0057	.0042 J
	10/24/2014	16.4	<0.0025	<0.010
	10/27/2015	18.0	0.0028 J	<0.01
	10/20/2016	16.0	0.0048 B	0.0029 J
	10/3/2017	16.8	0.0025 J	0.0026 J
	10/29/2018	15.2	0.0046	0.0093 J B
	10/22/2019	23.0	0.024 B	0.0031 J B
	10/28/2020	20.6	0.022 B	0.0039 J
	10/13/2021	19.5	0.011 B	0.013

TABLE 2
GROUNDWATER ANALYTICAL RESULTS, BREWER ROAD SITE, WATERLOO,
NY - UNFILTERED METALS
(Units in mg/l)

Sample ID	Analyzed	Magnesium (mg/L)	Manganese (mg/L)	Zinc (mg/L)
MW-3	10/3/1989	19.6	579	2,170
	4/18/1990	11.0	170	4,300
	4/14/1994	11.0	0.23	2.2
	9/29/1994	17.0	0.39	0.75
	3/28/1995	10.0	0.16	0.82
	10/6/1995	16.0	0.33	0.5
	3/25/1996	20.0	0.36	3.8
	9/19/1996	23.0	0.52	2.8
	3/16/1997	17.0	0.14	2.6
	9/17/1997	17.0	0.2	1.6
	3/18/1998	24.0	0.22	2.7
	9/24/1998	26.0	0.42	1.1
	3/17/1999	23.0	0.028	3.0
	9/29/1999	32.0	0.14	1.3
	3/16/2000	28.0	0.077	2.7
	9/26/2000	31.0	0.14	1.1
	9/13/2001	37.0	1.1	1.0
	9/3/2002	49.0	1.1	7.1
	9/23/2003	45.0	0.76	1.1
	9/8/2004	41.0	0.36	2.0
	9/13/2005	47.0	1.2	1.6
	9/15/2006	27.0	0.64	2.0
	9/13/2007-DRY	-	-	-
	9/25/2008	44.0	1.1	1.3
	9/24/2009	38.6	1.72	0.887
	9/14/2010	45.1	0.384	0.897
	9/27/2011	36.5	44	1.3
	9/27/2012-DRY	-	-	-
	9/11/2013	33.7	0.43	0.054
	10/24/2014	40.1	0.71	2.9
	10/27/2015	19.5	0.089	1.7
	10/20/2016-DRY	Dry	Dry	Dry
	10/3/2017	56.2	0.65	3.4
	10/29/2018	32.4	0.051	1.4 B
	10/22/2019	35.2	0.25 B	1.7 B
	10/28/2020	45.4	0.58 B	3.9
	10/13/2021	46.8	0.37 B	2.0

TABLE 2
GROUNDWATER ANALYTICAL RESULTS, BREWER ROAD SITE, WATERLOO,
NY - UNFILTERED METALS
 (Units in mg/l)

Sample ID	Analyzed	Magnesium (mg/L)	Manganese (mg/L)	Zinc (mg/L)
MW-4S	10/3/1989	2460.0	785	178
	4/18/1990	14.0	3,500	250
	4/14/1994	8.0	0.16	0.15
	9/29/1994	43.0	0.55	0.18
	3/28/1995	25.0	0.37	0.09
	10/6/1995	42.0	0.50	0.04
	3/25/1996	24.0	0.54	0.45
	9/19/1996	28.0	0.25	0.31
	3/16/1997	36.0	0.42	0.15
	9/17/1997	44.0	0.24	0.22
	4/1/1998	29.0	0.2	0.24
	9/24/1998	36.0	0.49	0.23
	4/12/1999	31.0	0.13	0.11
	9/29/1999	60.0	0.34	0.17
	3/16/2000	36.0	0.066	0.11
	9/26/2000	43.0	0.16	0.16
	9/13/2001	46.0	0.87	0.13
	9/3/2002	64.0	1.2	0.56
	9/23/2003	67.0	1.4	0.49
	9/8/2004	54.0	0.64	0.2
	9/13/2005	51.0	0.52	0.19
	9/15/2006	24.0	0.071	0.12
	9/13/2007	46.0	0.59	0.2
	9/25/2008	40.4	0.14	0.031 J
	9/24/2009	40.9	0.34	0.128
	9/14/2010	45.1	0.18	0.062
	9/27/2011	44.0	0.14	0.049
	9/27/2012	36.0	1.3	0.11
	9/11/2013	33.7	0.024	0.022
	10/24/2014	34.4	0.62	0.14
	10/27/2015	27.5	0.12	0.032
	10/20/2016-DRY	Dry	Dry	Dry
	10/3/2017	36.5	0.17	0.063
	10/29/2018	30.0	0.46	0.091 B
	10/22/2019	24.7	0.82 B	0.14 B
	10/28/2020	33.6	0.51 B	0.11
	10/13/2021	28.1	0.45 B	0.088

TABLE 2
GROUNDWATER ANALYTICAL RESULTS, BREWER ROAD SITE, WATERLOO,
NY - UNFILTERED METALS
 (Units in mg/l)

Sample ID	Analyzed	Magnesium (mg/L)	Manganese (mg/L)	Zinc (mg/L)
MW-4D	10/3/1989	15.0	165	31
	4/18/1990	22.0	<50	20
	4/14/1994	25.0	0.026	<0.02
	3/28/1995	26.0	0.021	<0.02
	3/25/1996	28.0	0.24	<0.01
	3/16/1997	28.0	0.018	<0.02
	3/18/1998	29.0	0.024	<0.02
	3/17/1999	30.0	0.061	0.03
	9/29/1999	34.0	0.14	<0.02
	3/16/2000	30.0	0.031	<0.02
	9/26/2000	46.0	0.38	0.04
	9/13/2001	28.0	0.02	<0.02
	9/3/2002	29.0	<0.05	<0.01
	9/23/2003	29.0	<0.05	0.01
	9/8/2004	27.0	<0.05	0.01
	9/13/2005	27.0	<0.015	<0.01
	9/15/2006	27.0	<0.05	0.043
	9/13/2007	28.0	<0.05	<0.02
	9/25/2008	27.0	0.013 J	<0.04
	9/24/2009	27.1	0.0153	<0.025
	9/14/2010	27.6	<0.05	<0.05
	9/27/2011	29.6	0.016	<0.01
	9/27/2012	25.4	<0.0025	<0.010
	9/11/2013	22.9	<0.0025	<0.010
	10/24/2014	23.3	0.0011 J	<0.010
	10/27/2015	24.2	0.17	0.067
	10/20/2016	23.9	0.016 B	0.0028 J
	10/3/2017	24.9	0.18	0.02
	10/29/2018	26.4	0.12	0.019 B
	10/22/2019	26.0	0.10 B	0.015 B
	10/28/2020	24.5	0.033 B	0.0056 J
	10/13/2021	27.0	0.039 B	0.098
Qualifiers:				
B Compound was found in blank and sample.				
J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.				

APPENDIX A

Analytical Results & Chain of Custody

ANALYTICAL REPORT

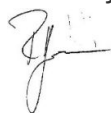
Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-190894-1
Client Project/Site: Brewer Rd site

For:

O & M Inc.
200 Day Hill Road
Suite 200
Windsor, Connecticut 06095

Attn: Ryan Malone



Authorized for release by:

10/25/2021 3:24:23 PM

Rebecca Jones, Project Management Assistant I
Rebecca.Jones@Eurofinset.com

Designee for

Brian Fischer, Manager of Project Management
(716)504-9835
Brian.Fischer@Eurofinset.com

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Qualifiers

GC/MS VOA

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

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Job ID: 480-190894-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-190894-1

Comments

No additional comments.

Receipt

The samples were received on 10/14/2021 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

GC/MS VOA

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

Metals

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

Detection Summary

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-1S

Lab Sample ID: 480-190894-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	15.8		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.51	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.021		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-2S

Lab Sample ID: 480-190894-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethene, Total	21		10	3.2	ug/L	1		624.1	Total/NA
Trichloroethene	0.98	J	5.0	0.60	ug/L	1		624.1	Total/NA
Magnesium	46.9		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.54	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.036		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-2D

Lab Sample ID: 480-190894-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	19.5		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.011	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.013		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 480-190894-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethene, Total	29		10	3.2	ug/L	1		624.1	Total/NA
Trichloroethene	1.9	J	5.0	0.60	ug/L	1		624.1	Total/NA
Magnesium	46.8		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.37	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	2.0		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-4S

Lab Sample ID: 480-190894-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	28.1		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.45	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.088		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: MW-4D

Lab Sample ID: 480-190894-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	27.0		0.20	0.043	mg/L	1		200.7 Rev 4.4	Total/NA
Manganese	0.039	B	0.0030	0.00040	mg/L	1		200.7 Rev 4.4	Total/NA
Zinc	0.098		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-190894-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-1S

Lab Sample ID: 480-190894-1

Date Collected: 10/13/21 10:30

Matrix: Water

Date Received: 10/14/21 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/21 19:35	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 19:35	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 19:35	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 19:35	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/21 19:35	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 19:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		68 - 130		10/15/21 19:35	1
4-Bromofluorobenzene (Surr)	100		76 - 123		10/15/21 19:35	1
Toluene-d8 (Surr)	104		77 - 120		10/15/21 19:35	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	15.8		0.20	0.043	mg/L		10/15/21 09:52	10/16/21 02:49	1
Manganese	0.51	B	0.0030	0.00040	mg/L		10/15/21 09:52	10/16/21 02:49	1
Zinc	0.021		0.010	0.0015	mg/L		10/15/21 09:52	10/16/21 02:49	1

Client Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-2S

Lab Sample ID: 480-190894-2

Date Collected: 10/13/21 11:15

Matrix: Water

Date Received: 10/14/21 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	21		10	3.2	ug/L			10/15/21 19:59	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 19:59	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 19:59	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 19:59	1
Trichloroethene	0.98	J	5.0	0.60	ug/L			10/15/21 19:59	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		68 - 130		10/15/21 19:59	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/15/21 19:59	1
Toluene-d8 (Surr)	104		77 - 120		10/15/21 19:59	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	46.9		0.20	0.043	mg/L		10/15/21 09:52	10/16/21 02:53	1
Manganese	0.54	B	0.0030	0.00040	mg/L		10/15/21 09:52	10/16/21 02:53	1
Zinc	0.036		0.010	0.0015	mg/L		10/15/21 09:52	10/16/21 02:53	1

Client Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-2D

Lab Sample ID: 480-190894-3

Date Collected: 10/13/21 11:30

Matrix: Water

Date Received: 10/14/21 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/21 20:22	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 20:22	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 20:22	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 20:22	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/21 20:22	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 20:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 130		10/15/21 20:22	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/15/21 20:22	1
Toluene-d8 (Surr)	105		77 - 120		10/15/21 20:22	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	19.5		0.20	0.043	mg/L		10/15/21 09:52	10/16/21 02:56	1
Manganese	0.011	B	0.0030	0.00040	mg/L		10/15/21 09:52	10/16/21 02:56	1
Zinc	0.013		0.010	0.0015	mg/L		10/15/21 09:52	10/16/21 02:56	1

Client Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-3

Lab Sample ID: 480-190894-4

Date Collected: 10/13/21 11:50

Matrix: Water

Date Received: 10/14/21 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	29		10	3.2	ug/L			10/15/21 20:46	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 20:46	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 20:46	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 20:46	1
Trichloroethene	1.9	J	5.0	0.60	ug/L			10/15/21 20:46	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 20:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		68 - 130		10/15/21 20:46	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/15/21 20:46	1
Toluene-d8 (Surr)	105		77 - 120		10/15/21 20:46	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	46.8		0.20	0.043	mg/L		10/15/21 09:52	10/16/21 03:00	1
Manganese	0.37	B	0.0030	0.00040	mg/L		10/15/21 09:52	10/16/21 03:00	1
Zinc	2.0		0.010	0.0015	mg/L		10/15/21 09:52	10/16/21 03:00	1

Client Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-4S

Lab Sample ID: 480-190894-5

Date Collected: 10/13/21 12:05

Matrix: Water

Date Received: 10/14/21 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/21 21:09	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 21:09	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 21:09	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 21:09	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/21 21:09	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 21:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		68 - 130		10/15/21 21:09	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/15/21 21:09	1
Toluene-d8 (Surr)	105		77 - 120		10/15/21 21:09	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	28.1		0.20	0.043	mg/L		10/15/21 09:52	10/16/21 03:04	1
Manganese	0.45	B	0.0030	0.00040	mg/L		10/15/21 09:52	10/16/21 03:04	1
Zinc	0.088		0.010	0.0015	mg/L		10/15/21 09:52	10/16/21 03:04	1

Client Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-4D

Lab Sample ID: 480-190894-6

Date Collected: 10/13/21 12:00

Matrix: Water

Date Received: 10/14/21 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/21 21:33	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 21:33	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 21:33	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 21:33	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/21 21:33	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 21:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 130		10/15/21 21:33	1
4-Bromofluorobenzene (Surr)	100		76 - 123		10/15/21 21:33	1
Toluene-d8 (Surr)	106		77 - 120		10/15/21 21:33	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	27.0		0.20	0.043	mg/L		10/15/21 09:52	10/16/21 03:08	1
Manganese	0.039	B	0.0030	0.00040	mg/L		10/15/21 09:52	10/16/21 03:08	1
Zinc	0.098		0.010	0.0015	mg/L		10/15/21 09:52	10/16/21 03:08	1

Client Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-190894-7

Date Collected: 10/13/21 00:00

Matrix: Water

Date Received: 10/14/21 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/21 21:56	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 21:56	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 21:56	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 21:56	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/21 21:56	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 21:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		68 - 130		10/15/21 21:56	1
4-Bromofluorobenzene (Surr)	99		76 - 123		10/15/21 21:56	1
Toluene-d8 (Surr)	107		77 - 120		10/15/21 21:56	1

Surrogate Summary

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DCA	BFB	TOL
		(68-130)	(76-123)	(77-120)
480-190894-1	MW-1S	97	100	104
480-190894-2	MW-2S	97	99	104
480-190894-3	MW-2D	99	99	105
480-190894-4	MW-3	103	99	105
480-190894-5	MW-4S	101	99	105
480-190894-6	MW-4D	99	100	106
480-190894-7	TRIP BLANK	98	99	107
LCS 480-600652/5	Lab Control Sample	97	104	106
MB 480-600652/7	Method Blank	99	100	106

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-600652/7

Matrix: Water

Analysis Batch: 600652

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/15/21 17:16	1
Chloroform	ND		5.0	0.54	ug/L			10/15/21 17:16	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/15/21 17:16	1
Toluene	ND		5.0	0.45	ug/L			10/15/21 17:16	1
Trichloroethene	ND		5.0	0.60	ug/L			10/15/21 17:16	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/15/21 17:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		68 - 130		10/15/21 17:16	1
4-Bromofluorobenzene (Surr)	100		76 - 123		10/15/21 17:16	1
Toluene-d8 (Surr)	106		77 - 120		10/15/21 17:16	1

Lab Sample ID: LCS 480-600652/5

Matrix: Water

Analysis Batch: 600652

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroform	20.0	21.5		ug/L		107	51 - 138
Tetrachloroethene	20.0	20.5		ug/L		103	64 - 148
Toluene	20.0	22.2		ug/L		111	47 - 150
Trichloroethene	20.0	21.0		ug/L		105	71 - 157
Vinyl chloride	20.0	19.3		ug/L		96	1 - 251

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		68 - 130
4-Bromofluorobenzene (Surr)	104		76 - 123
Toluene-d8 (Surr)	106		77 - 120

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-600522/1-A

Matrix: Water

Analysis Batch: 600711

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 600522

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	ND		0.20	0.043	mg/L		10/15/21 09:52	10/16/21 01:51	1
Manganese	0.000660	J	0.0030	0.00040	mg/L		10/15/21 09:52	10/16/21 01:51	1
Zinc	ND		0.010	0.0015	mg/L		10/15/21 09:52	10/16/21 01:51	1

Lab Sample ID: LCS 480-600522/2-A

Matrix: Water

Analysis Batch: 600711

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 600522

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	10.0	10.46		mg/L		105	85 - 115
Manganese	0.200	0.206		mg/L		103	85 - 115
Zinc	0.200	0.194		mg/L		97	85 - 115

Eurofins TestAmerica, Buffalo

QC Association Summary

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

GC/MS VOA

Analysis Batch: 600652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-190894-1	MW-1S	Total/NA	Water	624.1	
480-190894-2	MW-2S	Total/NA	Water	624.1	
480-190894-3	MW-2D	Total/NA	Water	624.1	
480-190894-4	MW-3	Total/NA	Water	624.1	
480-190894-5	MW-4S	Total/NA	Water	624.1	
480-190894-6	MW-4D	Total/NA	Water	624.1	
480-190894-7	TRIP BLANK	Total/NA	Water	624.1	
MB 480-600652/7	Method Blank	Total/NA	Water	624.1	
LCS 480-600652/5	Lab Control Sample	Total/NA	Water	624.1	

Metals

Prep Batch: 600522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-190894-1	MW-1S	Total/NA	Water	200.7	
480-190894-2	MW-2S	Total/NA	Water	200.7	
480-190894-3	MW-2D	Total/NA	Water	200.7	
480-190894-4	MW-3	Total/NA	Water	200.7	
480-190894-5	MW-4S	Total/NA	Water	200.7	
480-190894-6	MW-4D	Total/NA	Water	200.7	
MB 480-600522/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-600522/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 600711

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-190894-1	MW-1S	Total/NA	Water	200.7 Rev 4.4	600522
480-190894-2	MW-2S	Total/NA	Water	200.7 Rev 4.4	600522
480-190894-3	MW-2D	Total/NA	Water	200.7 Rev 4.4	600522
480-190894-4	MW-3	Total/NA	Water	200.7 Rev 4.4	600522
480-190894-5	MW-4S	Total/NA	Water	200.7 Rev 4.4	600522
480-190894-6	MW-4D	Total/NA	Water	200.7 Rev 4.4	600522
MB 480-600522/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	600522
LCS 480-600522/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	600522

Lab Chronicle

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-1S

Lab Sample ID: 480-190894-1

Date Collected: 10/13/21 10:30

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	600652	10/15/21 19:35	ATG	TAL BUF
Total/NA	Prep	200.7			600522	10/15/21 09:52	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	600711	10/16/21 02:49	LMH	TAL BUF

Client Sample ID: MW-2S

Lab Sample ID: 480-190894-2

Date Collected: 10/13/21 11:15

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	600652	10/15/21 19:59	ATG	TAL BUF
Total/NA	Prep	200.7			600522	10/15/21 09:52	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	600711	10/16/21 02:53	LMH	TAL BUF

Client Sample ID: MW-2D

Lab Sample ID: 480-190894-3

Date Collected: 10/13/21 11:30

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	600652	10/15/21 20:22	ATG	TAL BUF
Total/NA	Prep	200.7			600522	10/15/21 09:52	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	600711	10/16/21 02:56	LMH	TAL BUF

Client Sample ID: MW-3

Lab Sample ID: 480-190894-4

Date Collected: 10/13/21 11:50

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	600652	10/15/21 20:46	ATG	TAL BUF
Total/NA	Prep	200.7			600522	10/15/21 09:52	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	600711	10/16/21 03:00	LMH	TAL BUF

Client Sample ID: MW-4S

Lab Sample ID: 480-190894-5

Date Collected: 10/13/21 12:05

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	600652	10/15/21 21:09	ATG	TAL BUF
Total/NA	Prep	200.7			600522	10/15/21 09:52	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	600711	10/16/21 03:04	LMH	TAL BUF

Client Sample ID: MW-4D

Lab Sample ID: 480-190894-6

Date Collected: 10/13/21 12:00

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	600652	10/15/21 21:33	ATG	TAL BUF

Eurofins TestAmerica, Buffalo

Lab Chronicle

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Client Sample ID: MW-4D

Lab Sample ID: 480-190894-6

Date Collected: 10/13/21 12:00

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	200.7			600522	10/15/21 09:52	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	600711	10/16/21 03:08	LMH	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-190894-7

Date Collected: 10/13/21 00:00

Matrix: Water

Date Received: 10/14/21 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	600652	10/15/21 21:56	ATG	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0568	09-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total

Method Summary

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: O & M Inc.
Project/Site: Brewer Rd site

Job ID: 480-190894-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-190894-1	MW-1S	Water	10/13/21 10:30	10/14/21 08:00
480-190894-2	MW-2S	Water	10/13/21 11:15	10/14/21 08:00
480-190894-3	MW-2D	Water	10/13/21 11:30	10/14/21 08:00
480-190894-4	MW-3	Water	10/13/21 11:50	10/14/21 08:00
480-190894-5	MW-4S	Water	10/13/21 12:05	10/14/21 08:00
480-190894-6	MW-4D	Water	10/13/21 12:00	10/14/21 08:00
480-190894-7	TRIP BLANK	Water	10/13/21 00:00	10/14/21 08:00

Login Sample Receipt Checklist

Client: O & M Inc.

Job Number: 480-190894-1

Login Number: 190894

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Stopa, Erik S

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	O+M
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

APPENDIX B

Groundwater Level Measurements

SUPERFUND SITE

WELL PURGING-FIELD WATER QUALITY MEASUREMENT FORM

BREWER ROAD LANDFILL

Sampling Organization: O&M, Inc.		Start Time: 10:00:00 AM	Equipment Used: Lamonte 2020we Turbidity Meter, 100' Water Level Meter, 6 PFAS free Bailers, Lab Provided Sample Containers, Various PPE	
Field Personnel: Ryan Malone		Date: 10-13-2021	Calibration Log: 0, 1, 10 NTU Pre and post sampling	
Weather: Cloudy 50°		Equipment Serial No. 1055-2511		Decon Method: Alconox Solution
Purging Device: Dedicated PFAS free bailers				

Monitoring Well Number	Clock Time (24HR)	Measuring Point	Constructed Well Depth (ft)	Depth to Water (ft)	Depth to Bottom (ft)	Physical Cond.	Turbidity (NTU)	Quantity Purged (gallons)	Water Characteristics (color, odor, etc.)	Comments
MW-1 SHALLOW	10:30	Top of Inner Casing	12.33	6.21	11.6	Good	13.4	0.88	Clear, minor odors	
NOTES:										
MW-2 SHALLOW	11:15	Top of Inner Casing	10.66	4.62	10.55	Good	12.9	1.00	Black suspended solids present	
NOTES:										
MW-2 DEEP	11:30	Top of Inner Casing	31.97	5.58	32.08	Good	3.45	4.30	Clear, minor odors	
NOTES:										
MW-3	11:50	Top of Inner Casing	9.9	4.15	9.1	Good	46.3	0.8	Cloudy, minor odors	
NOTES:										
MW-4 DEEP	12:20	Top of Inner Casing	35.42	4.19	32.15	Good	51.2	4.55	Cloudy, minor odors	
NOTES:										
MW-4 SHALLOW	12:05	Top of Inner Casing	10.2	3.88	10.25	Good	31.5	1.00	Cloudy, minor odors	
NOTES:										
ADDITIONAL NOTES:										

APPENDIX C

Site Inspection Reports

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 1/12/2021

Weather Conditions: 35° Cloudy

Site Conditions: Good

Fence Line: Good

Grass: N/A

Snow: Coating to 1"

Alarms: None

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: On. Set at 70°

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1199.6 #2 Present Reading: 507.5

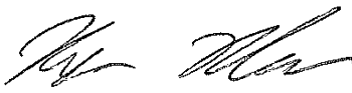
Previous Reading: 1195.0 Previous Reading: 505.8

Hours Run: 4.6 Hours Run: 1.7

Tank Level 107" Gallons: 18,931

Current Leachate Disposal Amount: 17,500

Last Disposal of Leachate: 10/28/2020 3,800
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 2/11/2021

Weather Conditions: 20° Cloudy

Site Conditions: Good

Fence Line: Good

Grass: N/A

Snow: Plowed today. 10" ground cover

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: _____

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1204.2 #2 Present Reading: 511.7

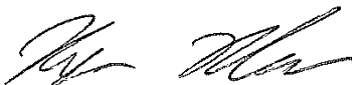
Previous Reading: 1199.6 Previous Reading: 507.5

Hours Run: 4.6 Hours Run: 4.2

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 17,500

Last Disposal of Leachate: 1/12/2021 17,500
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 3/11/2021

Weather Conditions: 65° Partly Cloudy

Site Conditions: Good

Fence Line: Good

Grass: N/A

Snow: Coating to 1"

Alarms: High tank level(1) and High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: On. Set at 70°

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1210.6 #2 Present Reading: 513.4

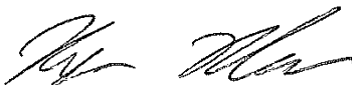
Previous Reading: 1204.2 Previous Reading: 511.7

Hours Run: 6.4 Hours Run: 1.7

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 15,500

Last Disposal of Leachate: 2/11/2021 17,500
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 4/29/2021

Weather Conditions: 55° Cloudy, Rain

Site Conditions: Good

Fence Line: Good

Grass: 6"

Snow: N/A

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: On. Set at 70°

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1220.5 #2 Present Reading: 516.3

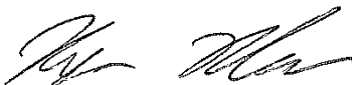
Previous Reading: 1210.6 Previous Reading: 513.4

Hours Run: 9.9 Hours Run: 2.9

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 14,000 removed on 4/22/21

Last Disposal of Leachate: 3/11/2021 15,500
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 5/13/2021

Weather Conditions: 60° Sunny

Site Conditions: Good

Fence Line: Good

Grass: 9"

Snow: N/A

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: Off

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1222.4 #2 Present Reading: 518.3

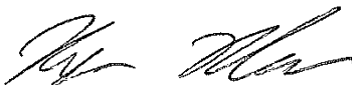
Previous Reading: 1220.5 Previous Reading: 516.3

Hours Run: 1.9 Hours Run: 2.0

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 21,000

Last Disposal of Leachate: 4/22/2021 14,000
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 6/16/2021

Weather Conditions: 60° Sunny

Site Conditions: Good

Fence Line: Good

Grass: Needs Mowing. Scheduled with A-Verdi

Snow: N/A

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: Off

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1230.9 #2 Present Reading: 520.0

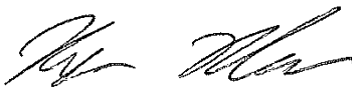
Previous Reading: 1222.4 Previous Reading: 518.3

Hours Run: 8.5 Hours Run: 1.7

Tank Level 99.75" Gallons: 17,951

Current Leachate Disposal Amount: 17,500

Last Disposal of Leachate: 5/13/2021 21,000
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 7/22/2021

Weather Conditions: 70° Cloudy

Site Conditions: Good

Fence Line: Good

Grass: Needs Mowing. Scheduled with A-Verdi

Snow: N/A

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: Off

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1239.9 #2 Present Reading: 522.1

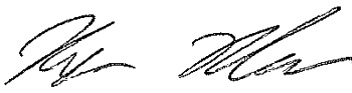
Previous Reading: 1230.9 Previous Reading: 520.0

Hours Run: 9.0 Hours Run: 2.1

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 17,500

Last Disposal of Leachate: 6/16/2021 17,500
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 8/17/2021

Weather Conditions: 80° Partly Sunny, Humid

Site Conditions: Good

Fence Line: Good

Grass: Needs Mowing. Scheduled to be mowed on 8/18/21

Snow: N/A

Alarms: None

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: Off

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1247.2 #2 Present Reading: 524.4

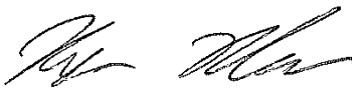
Previous Reading: 1239.9 Previous Reading: 522.1

Hours Run: 7.3 Hours Run: 2.3

Tank Level 107.25" Gallons: 18,945

Current Leachate Disposal Amount: 17,500

Last Disposal of Leachate: 7/22/2021 17,500
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 9/15/2021

Weather Conditions: 75° Cloudy

Site Conditions: Good

Fence Line: Good

Grass: Mowed on 8/18/21

Snow: N/A

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: Off

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1255.4 #2 Present Reading: 526.1

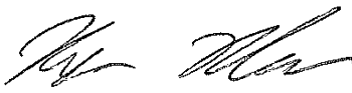
Previous Reading: 1247.2 Previous Reading: 524.4

Hours Run: 8.2 Hours Run: 1.7

Tank Level Full on 9/13/21 Gallons: 21,000

Current Leachate Disposal Amount: 10,500 on 9/15/21 and 10,500 on 9/13/21

Last Disposal of Leachate: 8/17/2021 17,500
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 10/13/2021

Weather Conditions: 72° Cloudy

Site Conditions: Good

Fence Line: Good

Grass: Mowed on 8/18/21

Snow: N/A

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: On. Set at 70°

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1262.8 #2 Present Reading: 526.7

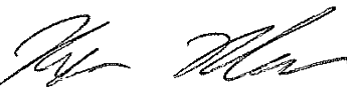
Previous Reading: 1247.2 Previous Reading: 524.4

Hours Run: 15.6 Hours Run: 2.3

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 21,000

Last Disposal of Leachate: 9/13 and 9/15 21,000
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 11/18/2021

Weather Conditions: 40° Cloudy

Site Conditions: Good

Fence Line: Good

Grass: N/A

Snow: N/A

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: On. Set at 70°

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1272.8 #2 Present Reading: 532.1

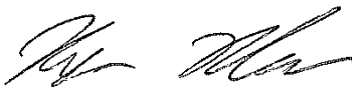
Previous Reading: 1262.8 Previous Reading: 526.7

Hours Run: 10 Hours Run: 5.4

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 21,000

Last Disposal of Leachate: 10/18/2021 21,000
Date Gallons

O&M, Inc. 

**W.R. Grace & Co.-Conn.
Brewer Road Remediation Site
Inspection Report**

Date: 12/8/2021

Weather Conditions: 30° Cloudy

Site Conditions: Good

Fence Line: Good

Grass: N/A

Snow: Coating to 1"

Alarms: High tank level(1) High pumping vault level(3)

Leak Detector Test: OK

Dialer - Check Status: OK

Heating Setting and Operation: On. Set at 70°

Monitoring Wells: ☒ 1S ☒ 2S ☒ 2D ☒ 3 ☒ 4S ☒ 4D

Leachate Pumping Station

Hour Run Meters

#1 Present Reading: 1281.9 #2 Present Reading: 534.5

Previous Reading: 1272.8 Previous Reading: 532.1

Hours Run: 9.1 Hours Run: 2.4

Tank Level Full Gallons: 21,000

Current Leachate Disposal Amount: 21,000

Last Disposal of Leachate: 11/18/2021 21,000
Date Gallons

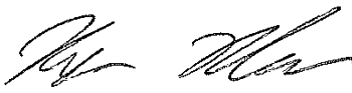
O&M, Inc. 

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed

1/12/2021

Inspector Name

Ryan Malone

Inspector Signature:



Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓ Coating to 1" of snow
Ground Water Cutoff Wall	Visually inspect surface conditions	✓ Coating to 1" of snow
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through Dec-2020
	Update graph of collected volume vs. monthly precipitation.	Updated through Dec-2020
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	107" 18,931 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed 2/11/2021Inspector Name Ryan MaloneInspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓ 10" snow
Ground Water Cutoff Wall	Visually inspect surface conditions	✓ 10" snow
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through Dec. 2020
	Update graph of collected volume vs. monthly precipitation.	Updated through Dec 2020
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full ~ 21,000 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed

3/11/2021

Inspector Name

Ryan Malone

Inspector Signature:



Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓ Coating to 1" of snow
Ground Water Cutoff Wall	Visually inspect surface conditions	✓ Coating to 1" of snow
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through February
	Update graph of collected volume vs. monthly precipitation.	Updated through February
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full ≈ 21,000 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed 4/29/2021Inspector Name Ryan MabreInspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through March
	Update graph of collected volume vs. monthly precipitation.	Updated through March
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full $\approx 21,000$ gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

**W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York**

Inspection Checklist

Date Performed

5/13/2021

Inspector Name

Ryan Mabre

Inspector Signature:

[Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through March
	Update graph of collected volume vs. monthly precipitation.	Updated through March
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full ~ 21,000 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed

6/16/2021

Inspector Name

Ryan Mabre

Inspector Signature:



Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through May
	Update graph of collected volume vs. monthly precipitation.	Updated through May
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	99-75" x 17,951 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

**W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York**

Inspection Checklist

Date Performed 7/22/2021

Inspector Name Ryan Malone

Inspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through June
	Update graph of collected volume vs. monthly precipitation.	Updated through June
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full ~21,000 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed 8/17/2021Inspector Name Ryan MaloneInspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through June
	Update graph of collected volume vs. monthly precipitation.	Updated through June
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	107.25" ~18,945 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed 9/15/2021Inspector Name Ryan MaloneInspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through August
	Update graph of collected volume vs. monthly precipitation.	Updated through August
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full ≈ 21,000 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed 10/13/2021Inspector Name Ryan MaloneInspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through August
	Update graph of collected volume vs. monthly precipitation.	Updated through August
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Fuel $\approx$ 21,000 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed 11/18/2021Inspector Name Ryan MahoeInspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through October
	Update graph of collected volume vs. monthly precipitation.	Updated through October
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full $\approx 21,000$ gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.

Table 1

W.R. Grace & Co. - CONN.
Brewer Road Landfill - Waterloo, New York

Inspection Checklist

Date Performed 12/8/2021Inspector Name Ryan MaloneInspector Signature: [Signature]

Item	Task	Result
Low Permeability Cover	Visually inspect surface conditions	✓
Ground Water Cutoff Wall	Visually inspect surface conditions	✓
	Obtain monthly precipitation data from the National Climatic Data Center.	Updated through October
	Update graph of collected volume vs. monthly precipitation.	Updated through October
Leachate Collection System		
Leachate Collection Trench	Visually inspect integrity of cleanouts and valves	✓
Leachate Lift Station	Visually inspect pumps, pipes and appurtenances and verify proper operation	✓
Piping System	Visually inspect at exit of pumping station and inlet of UST	✓
UST System	Inspect and record tank level. Calculate volume.	Full ~21,000 gallons
Control System	Inspect control panel, autodialer	✓
Site Security	Visually inspect integrity of fence around perimeter	✓
Site Drainage	Visually inspect surface conditions	✓
Access Road	Visually inspect surface conditions	✓
Ground Water Monitoring Wells	Visually inspect condition and security of well casings	✓

Note: Inspections to be performed monthly until September, 1994 and quarterly thereafter.