SEMI-ANNUAL GROUNDWATER MONITORING
BRISTOL MUNICIPAL LANDFILL
BRISTOL, VERMONT

DEC Project RU95-205

November 13, 2023

Prepared for:
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LEE Project # 14-013

Contents

1.0 INTRODUCTION

The Town of Bristol, Vermont (the Town) owns and previously operated a municipal landfill on Pine Street in the Town of Bristol, Vermont (See Site Location Map in Appendix A). The Site is currently a closed, unlined municipal solid waste disposal facility. The facility previously served approximately 3,500 people prior to closure.

The Site is certified for operation by the State of Vermont Department of Environmental Conservation (DEC), Waste Management Division, under Facility Certification RU95-0205. The current certification period is from January 30, 2017 through December 31, 2026.

The Town of Bristol has retained LE Environmental LLC (LEE) to collect groundwater samples in the vicinity of the landfill according to conditions 8 and 10 of the certification. Groundwater samples are collected in May and October from MW-101, 102R, 103, 309, and 335. The certification requires that the groundwater samples be tested for field parameters during collection, and for inorganic analytes and volatile organic compounds (VOCs – in May only) by a certified laboratory.

Semiannual monitoring is conducted to detect changes in groundwater quality which could indicate that landfill leachate is impacting groundwater beneath or adjacent to the Site. In addition to applicable Federal and State waste management statutes and regulations, the Site is regulated under the State of Vermont Groundwater Protection Rule and Strategy, Subchapter 12, effective July 6, 2019 (GWPRS) including Primary and Secondary Vermont Groundwater Enforcement Standards (VGES) contained in GWPRS Tables 1 and 2. The GWPRS requires that regulated activities not cause groundwater quality to exceed the VGES at the compliance boundary, defined as the downgradient property line, or at an alternative compliance boundary if one is established (see Section 12-801 and Appendix 1 of the GWPRS). The Federal regulations for municipal solid waste disposal facilities (40 C.F.R. Part 258) allow downgradient points of compliance to be up to 150 meters from the downgradient edge of the waste mass.

Surficial groundwater beneath the Site flows from northeast to southwest. The configuration of the Site is such that the distance between the southwestern edge of the waste mass and the southwestern property line is approximately 50 feet. In order to meet the requirements contained in the GWPRS with a higher degree of certainty, the Town has acquired groundwater easements from neighboring property owners west, north, and south of the Site. These easements allow the downgradient points of compliance for groundwater quality to be further from the landfill than the downgradient property lines.

The Site's compliance groundwater monitoring network consists of two upgradient monitoring wells (MW-309 and MW-103) and three downgradient monitoring wells

(MW-102R, MW-101, and MW-335). The approximate locations of these wells are depicted on the Site Map in Appendix A.

2.0 METHODOLOGY

On October 18, 2023, LEE obtained depth to groundwater measurements and obtained groundwater samples from all five groundwater monitoring wells. The water level indicator was cleaned before and between uses. The depth to water was subtracted from the top-of-casing elevation to obtain the relative water table elevation.

Groundwater monitoring wells were purged and sampled using air-driven downhole bladder pumps. The bladder pumps are connected to dedicated, bundled polyethylene tubing. Samples were purged and collected according to LEE's standard protocol for low flow sampling. Each well was purged until stabilization of pH, temperature, and turbidity occurred (typically 1-3 gallon evacuation).

The Town of Bristol elected to collect a groundwater sample for analysis of Per- and polyfluoroalkyl substances (PFAS) during the Fall 2023 sampling event. A sample was collected from downgradient monitoring well MW-101, using a non-dedicated PFA-free pump and disposable bladder.

All samples were delivered to Eastern Analytical, Inc of Concord, New Hampshire under proper chain of custody procedures on October 20, 2023.

3.0 RESULTS OF GROUNDWATER MONITORING

3.1 GROUNDWATER ELEVATIONS

Water level measurement data and calculated groundwater elevations are presented in Appendix B. The water table elevations in October 2023 were 0.6-2.2 foot higher than those seen in the Spring 2023 sampling event. The estimated groundwater flow direction in October 2023 was toward the southwest, similar to previous results.

3.2 GROUNDWATER QUALITY DATA

The October 2023 field measurement data for groundwater monitoring wells are summarized as follows. A summary of the data is included in Appendix B.

1. Groundwater pH at the time of sampling ranged measurements ranged from 6.50 to 8.16 standard units. Measured pH was within historic range at all monitoring locations.
2. Groundwater temperatures at the time of sampling ranged from 9.0° – 11.6°

Celsius and were within historic range at all monitoring locations.
3. Groundwater turbidity measurements ranged from 0.02 – 11.0 NTU and were within historic ranges at all monitoring locations.
4. Groundwater conductivity measurements ranged from 453 – 1,575 µs/cm and were within historic ranges at all monitoring locations.

Inorganic analytes were reported above detection limits in each of the samples collected from the monitoring wells. A database summary of accumulated water quality data for the Site is included in Appendix B. The laboratory analytical reports are included in Appendix C.

MW-101:
The laboratory analytical report indicates COD, chloride, sodium, total copper, total iron, and total and dissolved manganese, total nickel, and total zinc were reported above laboratory reporting limits. None exceeded applicable primary or secondary VGES except dissolved manganese, which exceeded the site-specific secondary VGES.

Several PFAs were reported above laboratory detection limits in the MW-101 groundwater sample. One compound (PFOA) exceeded the compound specific VGES, and the sum of the PFAS exceeded the VGES standard of 20 parts per trillion (ppt). The sum of the PFAS was 49.2 ppb and the VGES is 20 ppt.

MW-102R:
The laboratory analytical report indicates chloride, sodium, total and dissolved manganese, and total zinc were reported above laboratory reporting limits. None exceeded applicable primary or secondary VGES except dissolved and total manganese, which exceeded the primary and site-specific secondary VGES.

MW-103:
The laboratory analytical report indicates that chloride, sodium, total iron, and total and dissolved manganese were reported above laboratory reporting limits. None exceeded applicable primary or secondary VGES.

MW-309:
The laboratory analytical report indicates that chloride, sodium, and dissolved and total manganese were reported above laboratory reporting limits. None exceeded applicable primary or secondary VGES except dissolved and total manganese, which exceeded the site-specific secondary VGES.

MW-335:
The laboratory analytical report indicates that sodium, chloride, total iron, and total manganese were reported above laboratory reporting limits. None exceeded applicable primary or secondary VGES.

The site-specific secondary VGES for dissolved manganese was calculated using the methodology set forth in Section 12-502 (1)(a)(ii) of the 2016 GWPRS because background water quality exceeds published secondary standards. The mean dissolved manganese concentration in 64 samples collected from background well MW-309 is 0.14 ppm.

Data analysis indicates the following observations.

1. Reported concentrations of iron and manganese at downgradient monitoring well MW-101 have depicted a fluctuating trend. Concentrations of sodium and chloride have depicted an overall decreasing trend since 2003. All concentrations were within historic ranges.
2. A PFAS trend is not known since monitoring well MW-101 has only been sampled twice. However, the total PFAS concentrations decreased from 66.0 to 49.2 ng/l from May 2023 to October 2023. The Town is served by a municipal water system, but there are some private wells mapped on the ANR Atlas in the presumed downgradient direction of the closed landfill. A map identifying the locations of the nearby mapped wells is included in Appendix A. There is an additional closed landfill down/cross-gradient from the closed Town landfill, known as the Bristol Waste Management, Inc. closed landfill. According to the most recent sampling reports on the ANR database[1,2], PFAS were detected in groundwater at that landfill, at higher concentrations than those observed in MW-101 (107.3 and 86.8 ppt in July and October 2018 respectively). A drinking water sample was obtained from the Cantin residence in 2018 and no PFAs were reported above laboratory detection limits.
3. In upgradient monitoring well MW-103, all concentrations are within historic ranges with no discernable chloride or sodium trends. Concentrations of dissolved manganese have depicted a long-term decline.
4. In upgradient monitoring well MW-309, all concentrations are within historic ranges with no discernable trends except dissolved manganese concentrations are increasing. Since this is an upgradient monitoring well, this trend is not believed to be attributed to the landfill.
5. In downgradient monitoring well MW-335, all concentrations remained within historic ranges. The dissolved manganese concentrations have fluctuated over time. Concentrations of chloride and sodium have depicted a long-term decline.

4.0 QUALITY ASSURANCE AND QUALITY CONTROL SUMMARY

A duplicate sample was obtained from monitoring well MW-309 during the October 2023 sampling event for quality assurance and control (QAQC) purposes. The duplicate sample was analyzed for all test parameters. The results of the laboratory

[1] Waite and Heindel, July 2018 Water Quality Sampling and Analysis of Trend and Standard Exceedances, October 1, 2018.
[2] Waite and Heindel, PFAs Groundwater Table, October 2018.

analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. For the October 2023 monitoring event, the absolute RPD values ranged from 0% to 2.1%, which is within the 30% range specified by United States Environmental Protection Agency (EPA) Region 1.

5.0 CONCLUSIONS

LEE makes the following conclusions for the Fall 2023 monitoring event at the Bristol landfill.

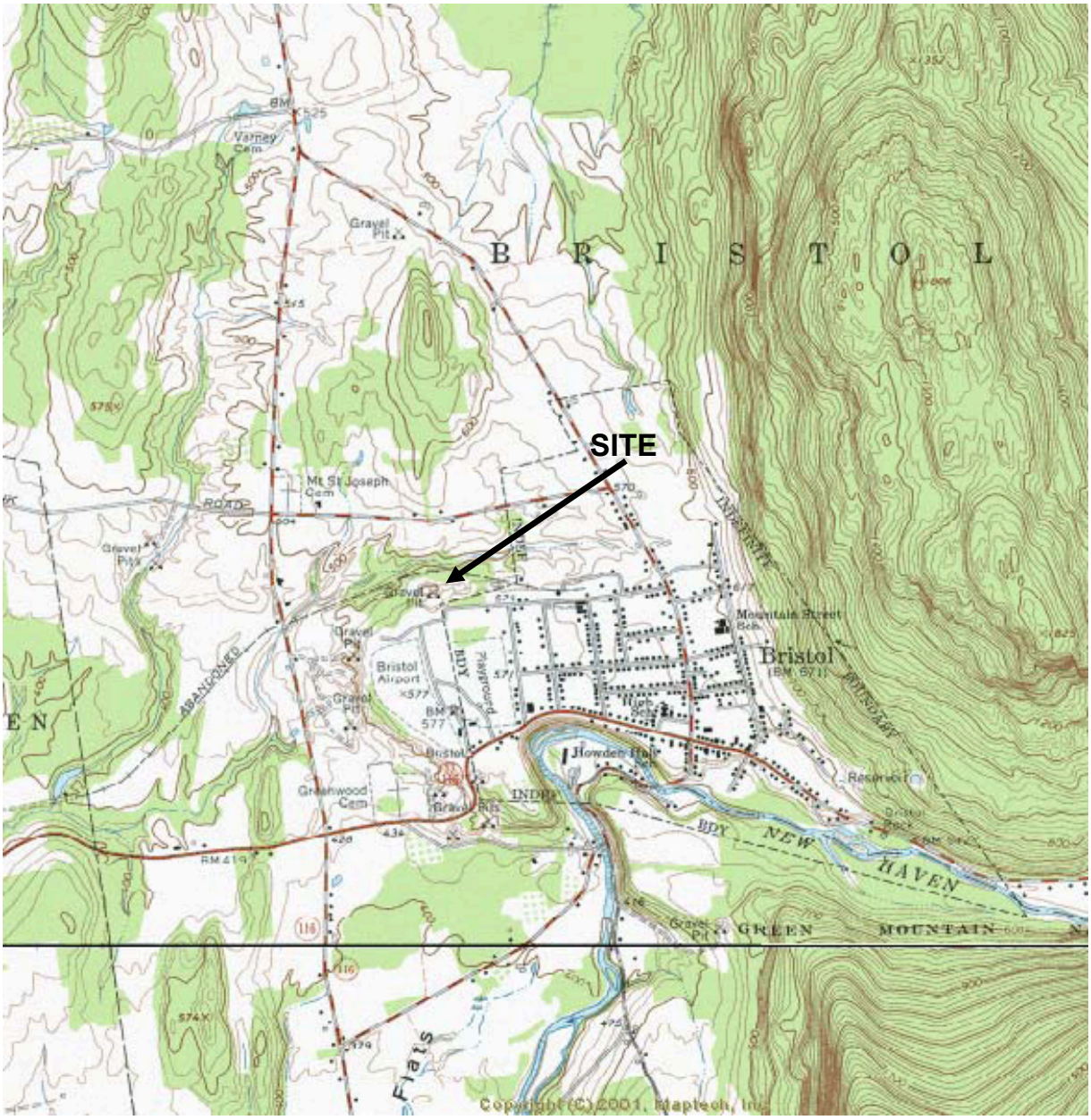
1. Based on the estimated groundwater flow direction, monitoring wells MW-101, MW-102R, and MW-335 are downgradient of the landfill, while MW-103 and MW-309 are upgradient of the landfill. Monitoring well MW-309 is also downgradient of several residences and businesses. The estimated flow direction is similar to previous estimates.
2. Compliance sampling of upgradient and downgradient groundwater monitoring wells indicated that the primary and site specific secondary VGES for dissolved manganese was exceeded at MW-101, MW-102R, and MW-309.
3. No sensitive receptors appear to be impacted. The Town holds groundwater easements on adjacent properties, which limit uses of groundwater in these zones.

6.0 RECOMMENDATIONS

The next semiannual sampling event will take place at the Bristol municipal landfill in May 2024 per the requirements of the landfill certification. Sampling for PFAS is recommended at MW-101 during the Spring 2024 sampling event to monitor trends in that groundwater monitoring well.

APPENDIX A

SITE MAPS



Bristol Landfill
Bristol, Vermont

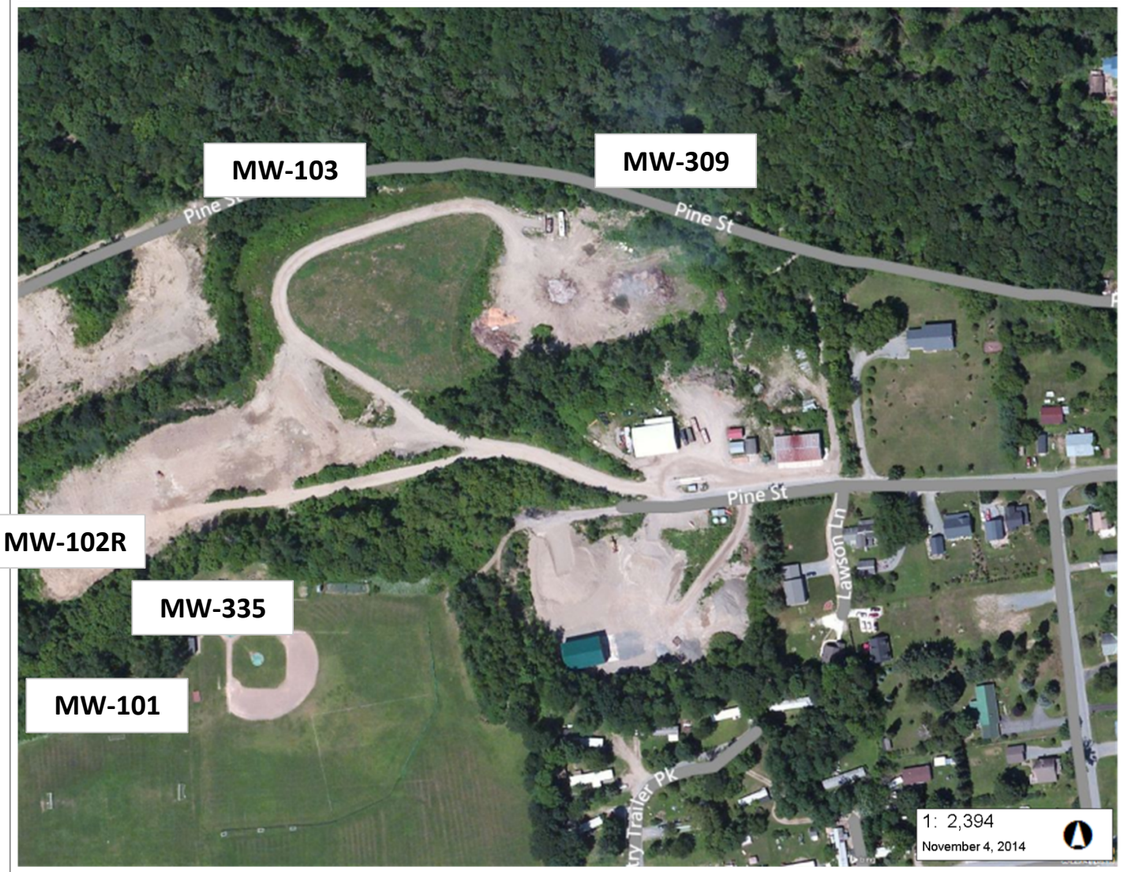
USGS Mapping

LE-Environmental

LE #: 14-013
Date: November 3, 2014
Source: msrmaps.com

VERMONT

Natural Resources Atlas
Vermont Agency of Natural Resources
vermont.gov



LEGEND

Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas

122.0 0 61.00 122.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 200 Ft. 1cm = 24 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

DISCLAIMER: This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

SITE PLAN
Bristol Landfill

VT ANR Natural Resources Atlas

LE·Environmental

LE #: 14-013
Date: November 3, 2014
Source: VTANR Mapper

Bristol Landfill Area Wells

Vermont Agency of Natural Resources

vermont.gov

LEGEND

Landfills
- OPERATING
- CLOSED

Private Wells
- GPS Located
- Screen Digitized
- E911 Address Matched
- Welldriller/Clarion
- Unknown Location Method
- Incorrectly Located

Parcels (standardized)

Roads
- Interstate
- US Highway; 1
- State Highway
- Town Highway (Class 1)
- Town Highway (Class 2,3)
- Town Highway (Class 4)
- State Forest Trail
- National Forest Trail
- Legal Trail
- Private Road/Driveway
- Proposed Roads

Town Boundary

NOTES

Map created using ANR's Natural Resources Atlas

541.0 0 270.00 541.0 Meters

WGS_1984_Web_Mercator_Auxiliary_Sphere 1" = 887 Ft. 1cm = 106 Meters

THIS MAP IS NOT TO BE USED FOR NAVIGATION

APPENDIX B

DATA SUMMARY TABLES

Water Table Elevations
Bristol Landfill

Date: 5/25/2011			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	128.19	446
MW-102R	520	79.44	441
MW-103	509	28.38	480.62
MW-309	525.48	35.38	490.1
MW-335	574	124.1	449.9

Date: 10/19/2011			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	128.5	445.69
MW-102R	520	79.95	440
MW-103	509	29.38	479.62
MW-309	525.48	36.93	488.55
MW-335	574	124.5	449.5

Date: 5/11/2012			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	130.59	443.6
MW-102R	520	82.53	437
MW-103	509	29.93	479.07
MW-309	525.48	39.18	486.3
MW-335	574	129.6	444.4

Date: 10/17/2012 and 10/18/2012			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	132.17	442.02
MW-102R	520	NR	-
MW-103	509	30.79	478.21
MW-309	525.48	40.92	484.56
MW-335	574	128.54	445.46

Date: 5/8/2013 and 6/4/2013			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	NR	-
MW-102R	520	84.42	436
MW-103	509	NR	-
MW-309	525.48	40.87	484.61
MW-335	574	NR	-

Date: 10/30/2013			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	133.06	441.13
MW-102R	520	79.87	440
MW-103	509	33.7	475.3
MW-309	525.48	40.55	484.93
MW-335	574	119.02	454.98

Date: 5/20/2014 and 5/21/2014			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	132.4	441.79
MW-102R	520	82.95	437
MW-103	509	33.91	475.09
MW-309	525.48	39.74	485.74
MW-335	574	127.45	446.55

Date: 10/15/14			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	134.35	439.84
MW-102R	520	84.31	435.69
MW-103	509	30.75	478.25
MW-309	525.48	40.88	484.6
MW-335	574	128.55	445.45

Notes:
Source of top of casing elevations for MW-101, MW-309 and MW-335:
Hydrogeology, Simulated Ground-Water Flow and Ground-Water Quality at Two Landfills in Bristol, Vermont
U.S. Geological Survey Water-Resources Investigations Report 94-4108, 1995, Appendix 2, Pgs 77-78.
Top of casing elevation for MW-103 (replacement for BR-2) estimated based on information for BR-2 in the referenced publicati
Top of casing elevation for MW-102R (replacement for MW102-D) estimated based on information for MW-102D in the referenc
Depth to water measured prior to purging
Data prior to October 2014 obtained from previous reports

Water Table Elevations
Bristol Landfill

Date: 5/26/2015			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	133.24	440.95
MW-102R	520	84.12	436
MW-103	509	30.26	479
MW-309	525.48	41.08	484.40
MW-335	574	129.44	445

Date: 10/15/2015			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	131.63	442.56
MW-102R	520	83.84	436
MW-103	509	30.49	479
MW-309	525.48	40.14	485.34
MW-335	574	128.05	446

Date: 5/10/2016			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	131.75	442.44
MW-102R	520	83.71	436
MW-103	509	29.98	479
MW-309	525.48	40.51	484.97
MW-335	574	128.09	446

Date: 10/19/2016			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	133.31	440.88
MW-102R	520	Dry	-
MW-103	509	31.34	478
MW-309	525.48	41.89	483.59
MW-335	574	129.79	444

Date: 5/9/2017			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	132.77	441.42
MW-102R	520	Dry	Dry
MW-103	509	30.17	479
MW-309	525.48	41.72	483.76
MW-335	574	129.06	445

Date: 10/24/2017			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	132.35	441.84
MW-102R	520	84.51	435
MW-103	509	30.56	478
MW-309	525.48	41.00	484.48
MW-335	574	128.73	445

Date: 5/17/2018			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	131.12	443.07
MW-102R	520	82.88	437
MW-103	509	29.53	479
MW-309	525.48	39.39	486.09
MW-335	574	127.42	447

Date: 10/30/2018			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	132.21	441.98
MW-102R	520	Dry	Dry
MW-103	509	30.64	478
MW-309	525.48	41.07	484.41
MW-335	574	128.64	445

Notes:
Source of top of casing elevations for MW-101, MW-309 and MW-335:
Hydrogeology, Simulated Ground-Water Flow and Ground-Water Quality at Two Landfills in Bristol, Vermont
U.S. Geological Survey Water-Resources Investigations Report 94-4108, 1995, Appendix 2, Pgs 77-78.
Top of casing elevation for MW-103 (replacement for BR-2) estimated based on information for BR-2 in the referenced publicati
Top of casing elevation for MW-102R (replacement for MW102-D) estimated based on information for MW-102D in the referenc
Depth to water measured prior to purging
Data prior to October 2014 obtained from previous reports

Water Table Elevations
Bristol Landfill

Date: 5/29/2019			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	130.03	444.16
MW-102R	520	81.71	438
MW-103	509	29.32	480
MW-309	525.48	38.24	487.24
MW-335	574	126.29	448

Date: 10/24/2019			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	130.24	443.95
MW-102R	520	82.04	438
MW-103	509	29.79	479
MW-309	525.48	38.38	487.10
MW-335	574	126.40	448

5/26/20			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	129.35	444.84
MW-102R	520	81.10	439
MW-103	509	29.61	479
MW-309	525.48	37.50	487.98
MW-335	574	125.57	448

10/19/20			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	131.25	442.94
MW-102R	520	83.28	437
MW-103	509	30.94	478
MW-309	525.48	40.05	485.43
MW-335	574	127.56	446

5/25/21			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	132.72	441.47
MW-102R	520	Dry	-
MW-103	509	30.61	478
MW-309	525.48	41.65	483.83
MW-335	574	129.00	445

10/19/21			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	133.47	440.72
MW-102R	520	-	-
MW-103	509	30.12	479
MW-309	525.48	42.04	483.44
MW-335	574	129.78	444

5/20/22			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	131.71	442.48
MW-102R	520	83.52	436
MW-103	509	29.92	479
MW-309	525.48	39.39	486.09
MW-335	574	128.00	446

10/25/22			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	132.51	441.68
MW-102R	520	Dry	-
MW-103	509	30.86	478
MW-309	525.48	40.87	484.61
MW-335	574	128.84	445

Notes:

Source of top of casing elevations for MW-101, MW-309 and MW-335:

Hydrogeology, Simulated Ground-Water Flow and Ground-Water Quality at Two Landfills in Bristol, Vermont

U.S. Geological Survey Water-Resources Investigations Report 94-4108, 1995, Appendix 2, Pgs 77-78.

Top of casing elevation for MW-103 (replacement for BR-2) estimated based on information for BR-2 in the referenced publicati

Top of casing elevation for MW-102R (replacement for MW102-D) estimated based on information for MW-102D in the referenc

Depth to water measured prior to purging

Data prior to October 2014 obtained from previous reports

Water Table Elevations
Bristol Landfill

Date: 5/18/23 and 5/23/23			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	131.51	442.68
MW-102R	520	83.39	437
MW-103	509	30.11	479
MW-309	525.48	39.90	485.58
MW-335	574	127.87	446

10/18/23			
Well ID	Top of Casing Elevation	Depth to Water	Water Table Elevation
MW-101	574.19	129.51	444.68
MW-102R	520	81.23	439
MW-103	509	29.53	479
MW-309	525.48	37.75	487.73
MW-335	574	125.74	448

Notes:

Source of top of casing elevations for MW-101, MW-309 and MW-335:

Hydrogeology, Simulated Ground-Water Flow and Ground-Water Quality at Two Landfills in Bristol, Vermont

U.S. Geological Survey Water-Resources Investigations Report 94-4108, 1995, Appendix 2, Pgs 77-78.

Top of casing elevation for MW-103 (replacement for BR-2) estimated based on information for BR-2 in the referenced publicati

Top of casing elevation for MW-102R (replacement for MW102-D) estimated based on information for MW-102D in the referenc

Depth to water measured prior to purging

Data prior to October 2014 obtained from previous reports

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-101

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
17-Aug-89	-	6.73	14.4	1134	-
19-Oct-89	-	6.86	9.5	1109	-
28-Dec-89	-	6.78	7	1075	-
19-Sep-90	-	-	-	1260	-
20-May-91	-	6.33	12.7	970	-
15-Aug-91	-	-	-	820	-
17-Oct-91	-	-	-	-	-
10-Jun-93	-	6.79	12.1	1128	-
13-Oct-93	-	6.7	10	1221	-
24-May-94	-	6.73	10.6	1226	-
19-Oct-94	-	7.14	9.6	1219	-
25-May-95	-	7.43	10.5	1208	-
24-Oct-95	-	6.7	10.4	1267	-
15-May-96	-	6.86	9.8	540	-
11-Oct-96	-	6.78	8.4	1121	12.65
21-May-97	-	6.46	9	1012	2.53
28-Oct-97	-	6.71	8.9	1053	13.21
27-May-98	130.52	6.98	9.7	1117	12.69
21-Oct-98	129.84	7.01	9.5	1099	13.02
19-May-99	130.29	6.88	6	575	5.6
28-Oct-99	132.36	7.18	10.6	1010	0.5
19-May-00	130.85	8.54	9.5	425	0.91
24-Oct-00	131.58	6.99	10.1	680	2.25
29-May-01	130.42	7.58	10.8	597	4.67
31-Oct-01	132.61	6.41	7	998	1.53
12-May-02	133.15	6.9	10	585	2
10-Oct-02	133.94	7.46	11.7	NT	4
22-May-03	133.43	6.94	11.5	727	2.33
9-Oct-03	133.66	6.92	14	1098	2
26-May-04	131.45	6.89	14.8	697	7.56
20-Oct-04	NM	7.07	13	857	0.93
26-May-05	130.57	6.77	9.9	621	4.6
19-Oct-05	129.19	6.66	10.1	1057	11.2
25-May-06	129.4	6.83	12.9	625	0.6
6-Oct-06	129.95	6.76	10.6	1049	3.2
7-May-07	129.98	6.73	11.6	598	6.1
8-Oct-07	130.6	6.87	11.2	948	NM
7-May-08	129.7	7.55	11.7	895	19.6
9-Oct-08	130.08	6.69	12.5	946	11.7
26-May-09	130.21	6.81	12.9	759	5.9
29-Oct-09	130.55	7.24	11.8	995	8.9

VOC Laboratory Data

Date	Chloromethane (ug/l)
17-Aug-89	3
19-Oct-89	ND<1
28-Dec-89	ND<10
19-Sep-90	-
20-May-91	ND<10
15-Aug-91	-
17-Oct-91	-
10-Jun-93	ND<10
13-Oct-93	ND<1
24-May-94	ND<1
19-Oct-94	ND<1
25-May-95	ND<2
24-Oct-95	ND<2
15-May-96	ND
11-Oct-96	ND
21-May-97	ND
28-Oct-97	ND
27-May-98	ND
21-Oct-98	ND
19-May-99	ND<10
28-Oct-99	ND<10
19-May-00	ND<10
24-Oct-00	ND<10
29-May-01	ND<10
31-Oct-01	ND<10
9-May-02	ND<10
10-Oct-02	ND<10
22-May-03	ND<3
9-Oct-03	ND<3
26-May-04	ND<3
20-Oct-04	ND<3
26-May-05	ND<3
19-Oct-05	ND<3
25-May-06	ND<3
6-Oct-06	ND<3
7-May-07	ND<3
8-Oct-07	ND<3
7-May-08	ND<3
9-Oct-08	ND<3
26-Mar-09	ND<3
29-Oct-09	ND<3

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled
"-" = No data available
Only VOCs reported above detection limits one or more times are displayed

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-101

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
26-May-10	130.65	7.04	13.2	880	29.3
13-Oct-10	131.78	6.93	12.3	716	NM
25-May-11	128.19	6.87	12.4	632	2.05
19-Oct-11	128.5	6.93	12.6	592	0
11-May-12	130.59	7.01	10.5	885	4.23
17-Oct-12	132.17	7.44	12	890	1.53
8-May-13	NM	7.28	16.9	805	0.4
30-Oct-13	133.06	NM	NM	NM	NM
20-May-14	NM	NM	NM	NM	NM
15-Oct-14	134.35	6.97	11.3	1014	45.57
26-May-15	133.24	7.56	14.8	1055	10.9
15-Oct-15	131.63	7.29	13.1	1172	9.78
10-May-16	131.75	8.17	10.3	1135	0.84
19-Oct-16	133.31	7.29	12.0	1185	3.91
9-May-17	132.77	7.17	9.7	1111	1.22
24-Oct-17	132.35	7.80	14.9	1085	1.76
17-May-18	131.12	6.82	12.2	1128	1.68
30-Oct-18	132.21	7.33	9.2	1054	NM
29-May-19	130.03	6.89	11.7	1045	1.92
24-Oct-19	130.24	8.26	10.7	867	15.4
26-May-20	129.35	7.35	10.5	847	9.03
19-Oct-20	131.25	6.94	11.3	851	0.02
25-May-21	132.72	7.10	12.1	847	2.13
19-Oct-21	133.47	7.12	10.7	843	17.2
20-May-22	131.71	7.29	14.0	NM	1.98
25-Oct-22	132.51	7.04	11.7	1066	1.99
18-May-23	131.51	7.08	9.9	1040	6.21
18-Oct-23	129.51	6.76	11.5	1046	6.75

VOC Laboratory Data

Date	Chloromethane (ug/l)
26-May-10	ND<3
13-Oct-10	ND<3
25-May-11	ND<3
19-Oct-11	ND<3
11-May-12	ND<3
17-Oct-12	ND<3
8-May-13	ND<3
30-Oct-13	NS
20-May-14	NS
15-Oct-14	ND<2
26-May-15	ND<2
15-Oct-15	ND<2
10-May-16	ND<2
19-Oct-16	ND<2
9-May-17	ND<2
24-Oct-17	NT
17-May-18	ND<2
30-Oct-18	NT
29-May-19	ND<2
24-Oct-19	NT
26-May-20	ND<2
19-Oct-20	NT
25-May-21	ND<2
19-Oct-21	NT
20-May-22	ND<2
25-Oct-22	NT
18-May-23	ND<2
18-Oct-23	NT

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled
NT = Not Tested
Only VOCs reported above detection limits one or more times are displayed

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-101

Laboratory Anaytical Data

Date	COD	Chloride	Sodium	Total Cadmium	Total Chromium	Total Copper	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Nickel	Total Zinc
17-Aug-89	15.8	80.5	-	-	-	-	-	-	-	-	-	-	-
19-Oct-89	11.4	98	-	-	-	-	-	-	-	-	-	-	-
28-Dec-89	10	97.2	-	-	-	-	0.025	-	-	0.356	-	-	-
19-Sep-90	ND<10	86.2	56.9	-	-	-	0.952	-	-	1.02	-	-	-
20-May-91	11.9	48.8	-	-	-	-	0.021	-	-	0.392	-	-	-
17-Oct-91	-	41.2	25.4	-	-	-	0.024	-	-	0.548	-	-	-
10-Jun-93	ND<2	64	34.6	-	-	-	ND<0.03	-	-	0.36	-	-	-
13-Oct-93	93	92.3	49.8	-	-	-	ND<0.01	-	-	0.33	-	-	-
24-May-94	5.92	65	52	-	-	-	0.02	-	-	0.31	-	-	-
19-Oct-94	5.1	75	54	-	-	-	0.03	-	-	0.3	-	-	-
25-May-95	ND<20	71	41	ND<0.001	ND<0.005	ND<0.03	ND<0.03	0.22	ND<0.003	0.36	0.42	ND<0.05	0.52
24-Oct-95	ND<20	77	41	0.001	ND<0.005	ND<0.03	0.03	0.32	ND<0.003	0.32	0.4	ND<0.05	0.34
15-May-96	7.6	3	4.15	0.003	ND<0.025	ND<0.02	ND<0.05	0.15	0.006	0.28	0.46	ND<0.025	0.05
11-Oct-96	ND<5	65.5	43.3	ND<0.001	0.002	ND<0.02	ND<0.02	0.132	0.005	0.458	0.49	ND<0.05	ND<0.02
21-May-97	ND<20	52.6	29.3	0.007	0.014	0.104	0.016	-	0.003	0.384	-	0.04	0.019
28-Oct-97	ND<20	57	32.6	ND<0.002	ND<0.01	ND<0.01	ND<0.01	0.063	ND<0.005	-	0.395	ND<0.02	ND<0.01
27-May-98	ND<20	66	37.8	ND<0.002	ND<0.01	ND<0.01	ND<0.01	0.032	ND<0.002	0.349	0.358	ND<0.02	ND<0.01
21-Oct-98	ND<20	71	36.8	ND<0.002	ND<0.01	ND<0.02	ND<0.02	0.031	ND<0.002	0.341	0.335	ND<0.02	ND<0.01
19-May-99	ND<20	45.2	24.7	ND<0.003	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.002	0.339	0.295	ND<0.02	ND<0.01
28-Oct-99	ND<15	58	29.5	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.025	ND<0.002	0.193	0.254	ND<0.02	ND<0.01
19-May-00	ND<15	10.5	21.6	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.027	ND<0.002	0.117	0.148	ND<0.02	ND<0.01
24-Oct-00	29	4.75	9.67	ND<0.003	ND<0.01	ND<0.01	0.147	0.307	ND<0.002	ND<0.005	0.331	ND<0.02	ND<0.01
29-May-01	ND<15	3.52	3.66	ND<0.003	ND<0.01	ND<0.01	0.078	0.163	ND<0.002	0.964	0.93	ND<0.02	ND<0.02
31-Oct-01	ND<15	9.56	6.42	ND<0.003	ND<0.01	ND<0.01	0.074	0.081	ND<0.002	0.451	0.36	ND<0.02	ND<0.02
9-May-02	ND<15	45.2	21.1	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.048	ND<0.002	0.045	0.107	ND<0.02	ND<0.02
10-Oct-02	ND<15	61.8	34.6	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.132	ND<0.002	ND<0.005	0.11	ND<0.02	ND<0.02
22-May-03	ND<15	80.6	51.3	ND<0.003	ND<0.01	0.019	ND<0.01	0.055	ND<0.002	0.223	0.238	ND<0.02	ND<0.02
9-Oct-03	18	112	69.2	ND<0.003	ND<0.01	0.012	ND<0.01	0.036	ND<0.002	0.233	0.232	ND<0.02	ND<0.02
26-May-04	ND<15	110	66.7	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.044	0.002	0.169	0.177	ND<0.02	ND<0.02
20-Oct-04	20	93.4	61.5	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.033	ND<0.002	0.072	0.091	ND<0.02	ND<0.02
26-May-05	ND<15	60.7	40.5	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.044	ND<0.002	0.072	0.084	ND<0.02	ND<0.02
19-Oct-05	ND<15	74	32.7	ND<0.002	ND<0.01	ND<0.01	ND<0.01	0.032	ND<0.01	0.093	0.089	ND<0.02	ND<0.02
25-May-06	ND<15	35.5	30.7	ND<0.002	ND<0.01	0.021	ND<0.01	0.011	ND<0.01	0.071	0.075	ND<0.02	ND<0.02
6-Oct-06	ND<15	65.9	34.8	ND<0.002	ND<0.002	ND<0.02	ND<0.02	ND<0.02	ND<0.001	0.101	0.101	ND<0.02	ND<0.02
7-May-07	61	5.61	5.67	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.035	ND<0.001	ND<0.02	ND<0.02	ND<0.02	ND<0.02
8-Oct-07	ND<10	74	46.6	ND<0.002	ND<0.02	ND<0.02	ND<0.02	ND<0.02	ND<0.001	ND<0.02	ND<0.02	ND<0.02	ND<0.02
7-May-08	28	55	37	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.093	ND<0.001	ND<0.02	0.035	ND<0.02	ND<0.02
9-Oct-08	ND<10	71	48	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.16	ND<0.001	0.03	0.053	ND<0.02	ND<0.02
26-May-09	ND<10	64	44	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.055	ND<0.001	ND<0.02	0.02	ND<0.02	ND<0.02
29-Oct-09	13	61	45	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.14	ND<0.001	ND<0.02	ND<0.02	ND<0.02	ND<0.02
26-May-10	15	58	44	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.17	ND<0.001	0.031	0.041	ND<0.005	ND<0.005
13-Oct-10	ND<10	62	45	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.028	ND<0.001	0.053	0.052	ND<0.005	ND<0.005
25-May-11	ND<10	55	43	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.025	ND<0.001	0.056	0.071	ND<0.005	0.009
19-Oct-11	14	51	34	ND<0.002	ND<0.005	ND<0.02	ND<0.02	ND<0.02	ND<0.001	0.06	0.059	ND<0.005	ND<0.02
11-May-12	10	44	29	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.046	ND<0.001	0.056	0.055	ND<0.005	ND<0.02
17-Oct-12	29	46	33	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.026	ND<0.001	0.05	0.051	ND<0.005	ND<0.02
8-May-13	ND<10	53	39	ND<0.002	ND<0.005	ND<0.02	ND<0.02	ND<0.02	ND<0.001	0.046	0.042	ND<0.005	ND<0.02
15-Oct-14	24	33	29	ND<0.001	ND<0.001	0.006	0.10	0.66	0.003	0.17	0.20	0.004	0.030
26-May-15	17	50	37	ND<0.001	ND<0.001	0.004	ND<0.05	0.24	0.001	0.23	0.29	0.005	0.014
15-Oct-15	ND<10	53	37	ND<0.001	ND<0.001	0.006	ND<0.05	0.37	0.002	0.079	0.074	0.005	0.013
10-May-16	ND<10	50	33	ND<0.001	ND<0.001	0.002	ND<0.05	ND<0.05	ND<0.001	0.11	0.11	0.004	ND<0.005
19-Oct-16	ND<10	50	34	ND<0.001	ND<0.001	0.004	ND<0.05	0.11	ND<0.001	0.13	0.14	0.005	0.015

Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit
"-" = No data available

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-101

Laboratory Anaytical Data

Date	COD	Chloride	Sodium	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Zinc
9-May-17	12	47	35	ND<0.05	ND<0.05	ND<0.001	0.070	0.077	ND<0.005
24-Oct-17	ND<10	49	40	ND<0.05	ND<0.05	ND<0.001	0.053	0.044	ND<0.005
17-May-18	ND<10	51	38	ND<0.05	ND<0.05	ND<0.001	0.25	0.27	0.0057
30-Oct-18	ND<10	48	37	ND<0.05	ND<0.05	ND<0.001	0.18	0.19	ND<0.005
29-May-19	ND<10	50	35	ND<0.05	ND<0.05	ND<0.001	0.31	0.33	ND<0.005
24-Oct-19	24	37	26	ND<0.05	0.45	0.0043	ND<0.005	0.061	0.068
26-May-20	22	36	25	ND<0.05	0.42	0.0029	0.13	0.22	0.034
19-Oct-20	ND<10	48	31	ND<0.05	ND<0.05	ND<0.001	0.27	0.29	ND<0.005
25-May-21	ND<10	63	34	ND<0.05	0.070	ND<0.001	0.27	0.28	0.0083
19-Oct-21	33	51	33	ND<0.05	0.50	0.0020	0.19	0.23	0.028
20-May-22	ND<10	53	37	0.42	0.33	ND<0.001	0.35	0.35	0.014
25-Oct-22	ND<10	53	39	0.24	0.49	ND<0.001	0.31	0.31	0.017
18-May-23	11	58	43	ND<0.05	0.25	ND<0.001	0.18	0.19	0.0081
18-Oct-23	23	52	43	ND<0.05	0.33	0.0013	0.17	0.18	0.010

Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit
"-" = No data available

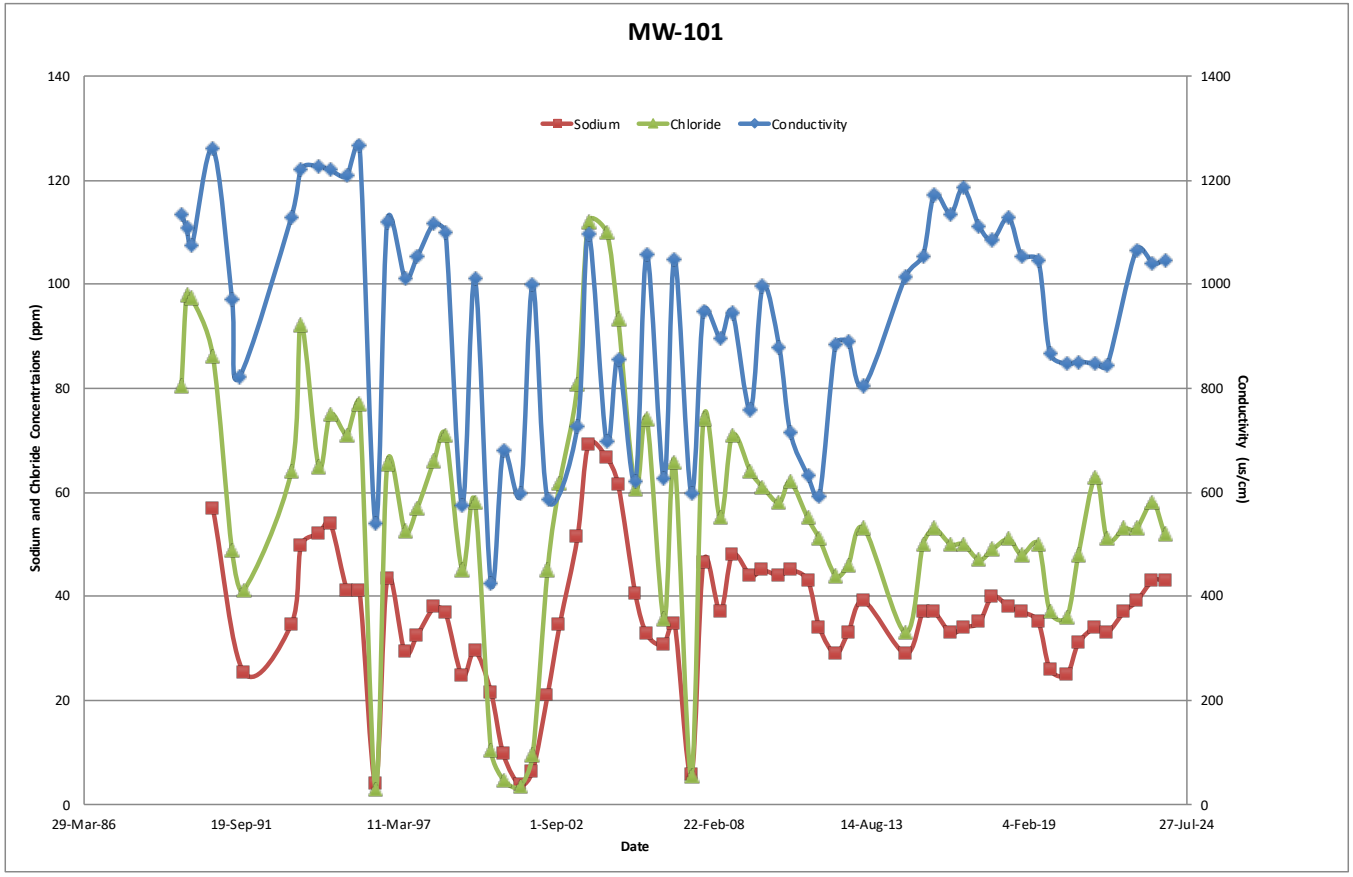
Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-101

LE Environmental

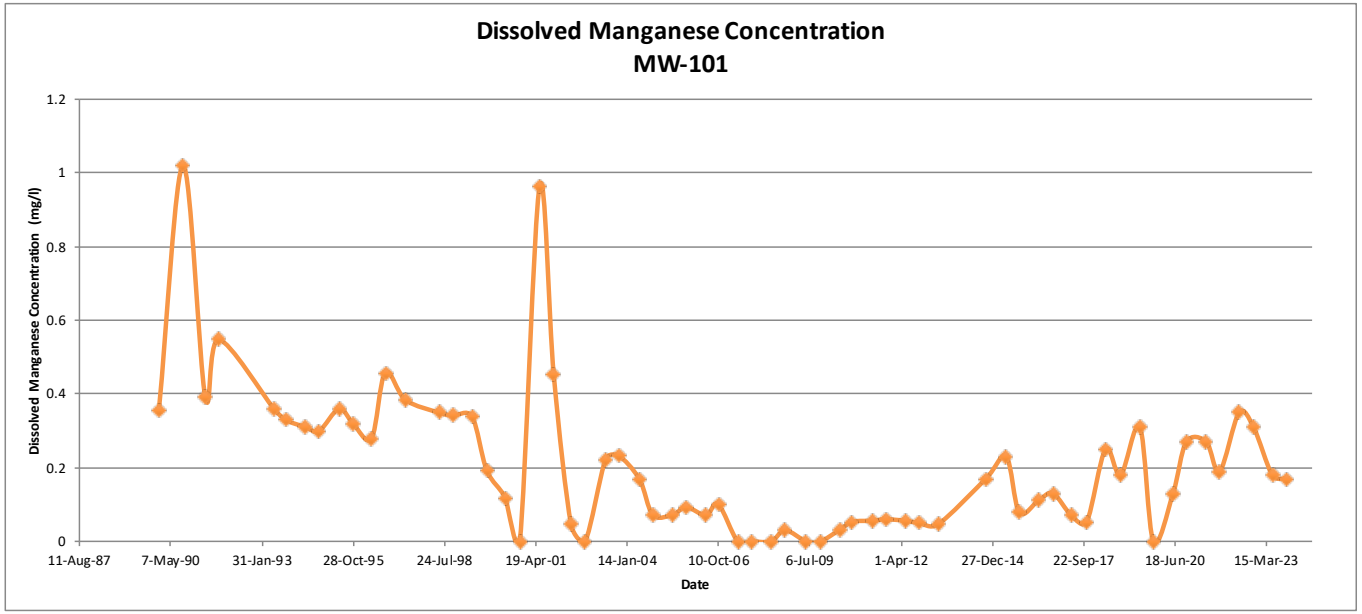
PFAS, EPA Method 537.1								
Sample Date	5/18/23	10/18/23						
Laboratory	Enthalpy	Enthalpy						GWES
Perfluorohexanesulfonic acid (PFHxS)	**10.5**	**6.44**						20
Perfluoroheptanoic acid (PFHpA)	**12.4**	**7.75**						20
Perfluorooctanoic acid (PFOA)	**28.0**	**23.8**						20
Perfluorooctanesulfonic acid (PFOS)	**15.1**	**11.2**						20
Perfluorononanoic acid (PFNA)	ND<1.94	ND<1.99						20
Sum of PFHxS, PFHpA, PFOA, PFOS, PFNA	**66.0**	**49.2**						20*

Notes
Results in ng/l. Reported results bold, * means sum of indicated compounds, results over VGES shaded
ND< = Non detect less than detection limit
GWES=Groundwater Enforcement Standard, Appendix one, Table 1, Groundwater Protection Rule and Strategy, July 6, 2019

Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-101



Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-101



Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-102R

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
25-May-06	81.35	6.55	14.5	1120	113
6-Oct-06	81.6	6.65	13.9	1221	23.1
7-May-07	82.5	6.4	13.4	1305	3.3
8-Oct-07	82.54	6.53	13.5	1044	NM
7-May-08	81.31	6.38	14.3	993	61.2
9-Oct-08	81.77	6.53	14.8	1057	10.5
26-May-09	82.1	6.49	14.9	754	16
29-Oct-09	82.55	6.66	14.1	903	7.3
26-May-10	82.09	6.85	15.4	960	18.3
13-Oct-10	82.68	6.78	14.5	737	NM
25-May-11	79.44	6.66	15.6	674	3.08
19-Oct-11	79.95	6.81	13.4	580	0
11-May-12	82.53	6.78	13.6	1177	19.25
18-Oct-12	NM	7.1	14.9	1239	2.87
4-Jun-13	84.42	6.87	12.1	793	2.41
30-Oct-13	79.87	6.68	12	1097	0.19
20-May-14	82.95	6.23	15.4	191	1.64
15-Oct-14	84.31	6.67	19.0	887	1.92
26-May-15	84.12	7.27	13.7	982	0.51
15-Oct-15	83.84	7.28	14.2	1036	0.47
10-May-16	83.71	7.24	11.7	1239	1.17
17-May-18	82.88	6.64	14.1	1311	3.95
29-May-19	81.71	6.61	12.2	1240	0.71
24-Oct-19	82.04	6.87	12.2	1018	0.40
26-May-20	81.1	7.03	14.2	1,033	0.02
19-Oct-20	83.28	7.00	12.9	884	0.20
20-May-22	83.52	6.75	16.1	NM	0.20
18-May-23	83.39	6.88	13.0	895	0.20
18-Oct-23	81.23	6.50	11.6	1,249	0.02

VOC Laboratory Data

Date	Tetrahydrofuran (ug/l)
9-Oct-08	12.3
26-May-09	14.5
29-Oct-09	ND<10
26-May-10	ND<10
13-Oct-10	ND<10
25-May-11	ND<10
19-Oct-11	ND<10
18-Oct-12	ND<10
4-Jun-13	ND<10
30-Oct-13	ND<10
20-May-14	ND<10
15-Oct-14	ND<10
26-May-15	ND<10
15-Oct-15	ND<10
10-May-16	ND<10
17-May-18	ND<10
29-May-19	ND<10
24-Oct-19	NT
26-May-20	ND<10
19-Oct-20	NT
20-May-22	ND<10
18-May-23	ND<10
18-Oct-23	NT

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled NT = Not Tested
"-" = No data available
Only VOCs reported above detection limits one or more times are displayed

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-102R

Laboratory Anaytical Data

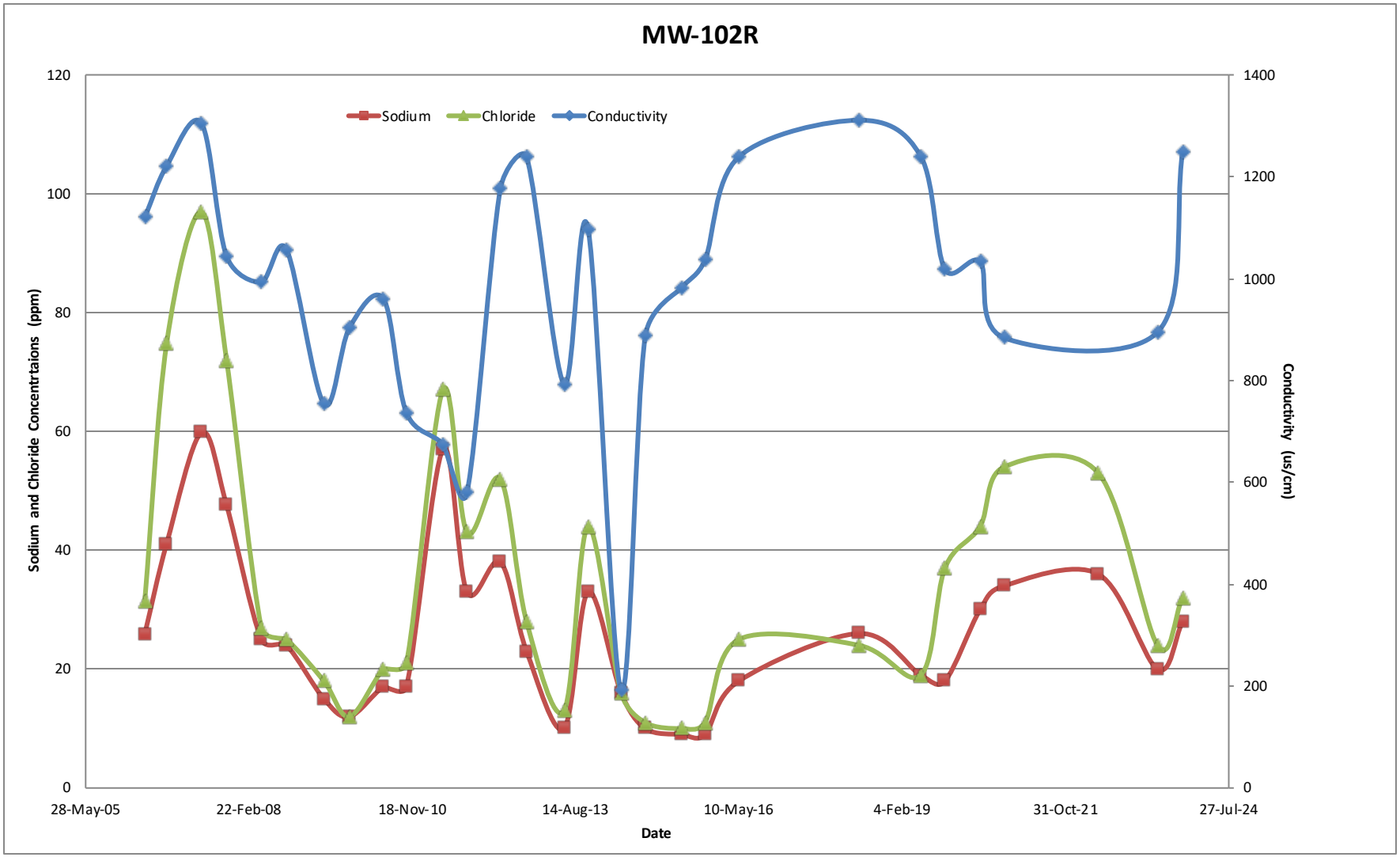
Date	COD	Chloride	Sodium	Total Cadmium	Total Chromium	Total Copper	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Nickel	Total Zinc
25-May-06	ND<15	31.5	25.9	ND<0.002	ND<0.01	0.032	ND<0.01	ND<0.01	ND<0.01	1.68	1.61	ND<0.02	ND<0.02
6-Oct-06	ND<15	74.8	41.1	ND<0.002	ND<0.02	0.023	ND<0.02	0.846	0.002	0.541	0.56	ND<0.02	ND<0.02
7-May-07	41	96.9	59.8	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.163	ND<0.001	0.313	0.334	ND<0.02	ND<0.02
8-Oct-07	ND<10	72	47.6	ND<0.002	ND<0.02	ND<0.02	ND<0.02	5.08	0.005	0.711	0.706	ND<0.02	ND<0.02
8-May-08	ND<10	27	25	ND<0.002	ND<0.02	ND<0.02	ND<0.02	1.1	0.017	0.79	0.84	ND<0.02	ND<0.02
9-Oct-08	ND<10	25	24	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.51	ND<0.001	1.1	1.1	ND<0.02	ND<0.02
26-May-09	ND<10	18	15	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.19	ND<0.001	1.3	1.3	ND<0.02	ND<0.02
29-Oct-09	15	12	12	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.097	ND<0.001	1.3	1.3	ND<0.02	0.044
26-May-10	20	20	17	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.056	ND<0.001	0.92	0.92	ND<0.005	ND<0.005
13-Oct-10	ND<10	21	17	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.047	ND<0.001	1.2	1.1	ND<0.005	0.005
25-May-11	15	67	57	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.02	ND<0.001	ND<0.02	0.038	ND<0.005	0.033
19-Oct-11	17	43	33	ND<0.002	ND<0.005	ND<0.02	ND<0.02	ND<0.02	ND<0.001	0.14	0.13	ND<0.005	ND<0.02
11-May-12	13	52	38	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.096	ND<0.001	0.98	0.98	0.006	ND<0.02
18-Oct-12	ND<10	28	23	ND<0.002	ND<0.005	ND<0.02	ND<0.02	ND<0.02	ND<0.001	1.9	2	0.006	ND<0.02
4-Jun-13	ND<10	13	10	ND<0.002	ND<0.005	ND<0.02	ND<0.02	ND<0.02	ND<0.001	1.4	1.4	ND<0.005	ND<0.02
30-Oct-13	20	44	33	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.039	ND<0.001	0.99	1.2	0.012	ND<0.02
20-May-14	12	16	16	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.035	ND<0.001	0.32	0.3	ND<0.005	ND<0.02
15-Oct-14	ND<10	11	10	ND<0.001	ND<0.001	0.014	ND<0.05	ND<0.05	ND<0.001	0.45	0.047	0.002	ND<0.005
26-May-15	ND<10	10	9	ND<0.001	ND<0.001	0.002	ND<0.05	ND<0.05	ND<0.001	0.55	0.58	0.003	ND<0.005
15-Oct-15	ND<10	11	9	ND<0.001	ND<0.001	0.001	ND<0.05	0.23	ND<0.001	0.15	0.17	0.003	ND<0.005
10-May-16	ND<10	25	18	ND<0.001	ND<0.001	ND<0.001	ND<0.05	ND<0.05	ND<0.001	0.25	0.26	0.004	ND<0.005
17-May-18	ND<10	24	26	NT	NT	NT	ND<0.05	ND<0.05	ND<0.001	0.0062	0.19	NT	ND<0.005
29-May-19	ND<10	19	19	NT	NT	NT	ND<0.05	ND<0.05	ND<0.001	0.014	0.082	NT	ND<0.005
24-Oct-19	ND<10	37	18	NT	NT	NT	ND<0.05	ND<0.05	ND<0.001	0.49	0.64	NT	ND<0.005
26-May-20	ND<10	44	30	NT	NT	NT	ND<0.05	ND<0.05	ND<0.001	0.59	0.63	NT	ND<0.005
19-Oct-20	ND<10	54	34	NT	NT	NT	ND<0.05	ND<0.05	ND<0.001	0.52	0.56	NT	ND<0.005
20-May-22	ND<10	53	36	NT	NT	NT	ND<0.05	0.058	0.0020	ND<0.005	0.11	NT	0.044
18-May-23	ND<10	24	20	NT	NT	NT	ND<0.05	ND<0.05	ND<0.001	ND<0.005	0.012	NT	ND<0.005
18-Oct-23	ND<10	32	28	NT	NT	NT	ND<0.05	ND<0.05	ND<0.001	0.46	0.55	NT	0.0050

Notes

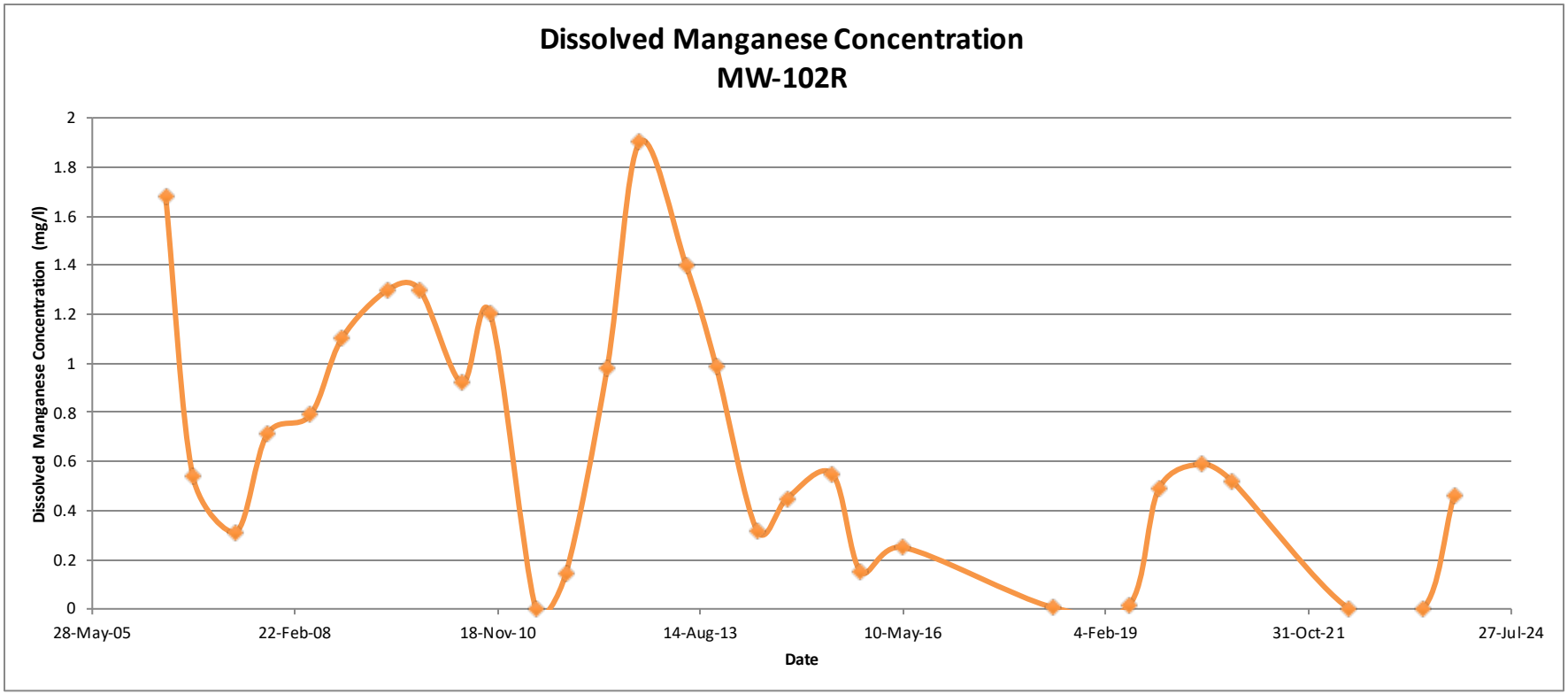
Results in mg/l unless otherwise noted.

ND< = Non detect less than detection limit

Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-102R



Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-102R



Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-103

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
25-May-95	-	6.95	8.8	540	-
24-Oct-95	-	6.88	9.3	487	-
15-May-96	-	7.12	8.5	582	-
11-Oct-96	-	7.31	6.7	478	569
21-May-97	-	6.53	8.5	465	1085
28-Oct-97	-	7.17	7.7	446	192.1
27-May-98	29.79	6.85	7.9	470	176.4
21-Oct-98	29.44	6.87	7.8	451	144.2
19-May-99	29.73	7.14	8.9	107.5	28.9
28-Oct-99	28.78	8.1	9.3	448	197
19-May-00	29.22	8.74	8.8	436	80.2
24-Oct-00	30.15	7.41	10.3	454	26.5
29-May-01	29.88	7.96	10.6	-	31.9
31-Oct-01	31.07	6.4	7.3	461	16.1
9-May-02	30.18	7.06	10.6	550	43
10-Oct-02	31.76	7.52	11.5	-	25
22-May-03	30.11	7.28	11.3	358	70.5
9-Oct-03	31.2	7.31	13.6	413	10
26-May-04	29.42	7.2	14.3	315	39.5
20-Oct-04	29.85	7.05	9.9	435	13.9
26-May-05	32.51	7.16	9.9	360	31.2
19-Oct-05	30.25	7.1	10.1	441	23.4
25-May-06	29.2	7.3	12	470	26.3
6-Oct-06	30.5	7.75	10.4	423	39.7
7-May-07	30.02	7.05	11.8	486	23.1
8-Oct-07	30.45	7.53	10.4	425	NM
7-May-08	31.33	7.43	12.1	422	18.2
9-Oct-08	29.73	7.48	12.9	414	19.9
26-Mar-09	28.85	7.07	10.9	353	14.8
29-Oct-09	30.27	7.55	12.7	451	12.7

VOC Laboratory Data

Date	Toluene (ug/l)	MTBE (ug/l)	Benzene (ug/l)
25-May-95	ND	ND	ND
24-Oct-95	ND	ND	ND
15-May-96	ND	ND	ND
11-Oct-96	1.3	ND	ND
21-May-97	ND	ND	ND
28-Oct-97	ND	ND	ND
27-May-98	ND	ND	ND
21-Oct-98	ND	ND	ND
19-May-99	ND<1	ND	ND
28-Oct-99	ND<1	ND	ND
19-May-00	ND<1	ND	ND
24-Oct-00	ND<1	ND	ND
29-May-01	ND<1	ND	ND
31-Oct-01	ND<1	ND	ND
9-May-02	1.4	5.1	ND
10-Oct-02	ND<1	ND<1	ND
22-May-03	ND<1	ND<1	ND
9-Oct-03	ND<1	ND<2	ND
26-May-04	ND<1	ND<2	ND
20-Oct-04	ND<1	ND<2	ND
26-May-05	1.1	ND<2	ND
19-Oct-05	3.1	ND<2	1.4
25-May-06	2.6	ND<2	1
26-May-06	1.8	ND<2	ND<1
7-May-07	1.5	ND<2	ND<1
8-Oct-07	ND<1	ND<2	ND<1
7-May-08	2.4	ND<2	ND<1
9-Oct-08	ND<1	ND<2	ND<1
26-Mar-09	ND<1	ND<2	ND<1
29-Oct-09	ND<1	ND<2	ND<1

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled
"-" = No data available
Only VOCs reported above detection limits one or more times are displayed

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-103

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
26-May-10	29.63	8.01	15.4	402	18.3
13-Oct-10	29.92	7.55	12.3	358	NM
25-May-11	28.38	7.32	11.9	386	3.9
19-Oct-11	29.38	7.18	11.4	332	0
11-May-12	29.93	7.49	12.7	445	3.14
18-Oct-12	30.79	7.57	11	424.4	85
8-May-13	NM	7.86	13.1	302	0.63
30-Oct-13	33.7	7.03	8.5	378.7	0.74
20-May-14	33.91	7.42	11.4	138.2	18.7
15-Oct-14	30.75	7.29	11.2	457	26.26
26-May-15	30.26	8.21	11.7	463	1.06
15-Oct-15	30.49	7.64	9.6	464	0.89
10-May-16	29.98	8.29	9.6	470	0.45
19-Oct-16	31.34	7.84	10.6	458	11.0
9-May-17	30.17	7.39	10.3	451	5.05
24-Oct-17	30.56	7.75	12.5	442	2.36
17-May-18	29.53	7.32	10.8	479	1.87
30-Oct-18	30.64	7.82	8.4	443	NM
29-May-19	29.32	7.35	9.5	482	0.22
24-Oct-19	29.79	7.58	9.5	451	14.2
26-May-20	29.61	7.60	10.6	462	0.02
19-Oct-20	30.94	7.60	10.3	398	0.02
25-May-21	30.61	7.14	10.7	458	0.02
19-Oct-21	30.12	7.33	10.4	419	0.72
20-May-22	29.92	7.40	17.8	NM	0.02
25-Oct-22	30.86	7.23	10.7	438	114
23-May-23	30.11	7.51	9.5	428	0.73
18-Oct-23	29.53	7.15	9.4	453	0.02

VOC Laboratory Data

Date	Toluene (ug/l)	MTBE (ug/l)	Benzene (ug/l)
26-May-10	ND<1	ND<2	ND<1
13-Oct-10	ND<1	ND<2	ND<1
25-May-11	ND<1	ND<2	ND<1
19-Oct-11	ND<1	ND<2	ND<1
11-May-12	ND<1	ND<2	ND<1
18-Oct-12	ND<1	ND<2	ND<1
8-May-13	ND<1	ND<2	ND<1
30-Oct-13	ND<1	ND<2	ND<1
20-May-14	ND<1	ND<2	ND<1
15-Oct-14	ND<1	ND<5	ND<1
26-May-15	ND<1	ND<5	ND<1
15-Oct-15	ND<1	ND<5	ND<1
10-May-16	ND<1	ND<5	ND<1
19-Oct-16	ND<1	ND<5	ND<1
9-May-17	ND<1	ND<5	ND<1
24-Oct-17	NT	NT	NT
17-May-18	ND<1	ND<5	ND<1
30-Oct-18	NT	NT	NT
29-May-19	ND<1	ND<5	ND<1
24-Oct-19	NT	NT	NT
24-Oct-19	ND<1	ND<5	ND<1
19-Oct-20	NT	NT	NT
25-May-21	ND<1	ND<5	ND<1
19-Oct-21	NT	NT	NT
25-May-21	ND<1	ND<5	ND<1
25-Oct-22	NT	NT	NT
23-May-23	ND<1	ND<5	ND<1
18-Oct-23	NT	NT	NT

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled
NT - Not Tested
Only VOCs reported above detection limits one or more times are displayed

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-103

Laboratory Anaytical Data

Date	COD	Chloride	Sodium	Total Cadmium	Total Chromium	Total Copper	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Nickel	Total Zinc
25-May-95	ND<20	18	8.1	ND<0.001	ND<0.005	ND<0.03	ND<0.03	5.8	ND<0.003	0.68	1	ND<0.05	0.093
24-Oct-95	ND<20	19	6	ND<0.001	ND<0.005	ND<0.03	0.03	3.03	0.006	0.046	1.03	ND<0.05	0.079
15-May-96	ND<5	14	11.2	0.005	ND<0.025	0.044	ND<0.05	77.8	0.018	0.686	3.46	ND<0.025	0.283
11-Oct-96	ND<5	16	9.58	0.001	0.091	0.066	ND<0.02	73.4	0.032	0.365	2.62	ND<0.05	0.183
21-May-97	ND<20	15.2	6.85	ND<0.002	ND<0.01	0.08	0.012		0.015	0.195		ND<0.05	0.063
28-Oct-97	ND<20	17.3	7.03	ND<0.002	ND<0.01	ND<0.01	0.013	55.7	ND<0.005	0.104	0.474	ND<0.02	0.029
27-May-98	ND<20	15.3	6.11	ND<0.002	ND<0.01	ND<0.01	ND<0.01	0.323	0.002	0.04	0.142	ND<0.02	0.011
21-Oct-98	ND<20	15.4	5.97	ND<0.002	ND<0.01	ND<0.02	0.05	0.314	ND<0.002	0.049	0.56	ND<0.02	ND<0.01
19-May-99	ND<20	15.4	6.18	ND<0.003	ND<0.01	ND<0.01	ND<0.01	ND<0.01	ND<0.002	0.064	0.059	ND<0.02	ND<0.01
28-Oct-99	ND<15	15.2	6.27	ND<0.003	ND<0.01	ND<0.01	ND<0.01	6.72	0.004	0.044	0.393	ND<0.02	0.022
19-May-00	ND<15	13.4	6.34	ND<0.003	ND<0.01	ND<0.01	ND<0.01	2.94	0.003	0.044	0.164	ND<0.02	0.013
24-Oct-00	ND<15	15.1	7	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.15	0.002	0.036	0.096	ND<0.02	ND<0.01
29-May-01	ND<15	13	7.19	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.202	ND<0.002	0.026	0.041	ND<0.02	ND<0.02
31-Oct-01	ND<15	13.8	7.35	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.869	ND<0.002	0.029	0.087	ND<0.02	ND<0.02
9-May-02	ND<15	14	5.8	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.3	ND<0.002	0.03	0.115	ND<0.02	ND<0.02
10-Oct-02	ND<15	13.5	5.88	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.73	ND<0.002	0.019	0.055	ND<0.02	ND<0.02
22-May-03	ND<15	15.7	7.39	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.47	ND<0.002	0.012	0.099	ND<0.02	ND<0.02
9-Oct-03	ND<15	14.8	7.65	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.539	ND<0.002	0.011	0.046	ND<0.02	1.02
26-May-04	ND<15	15.3	6.73	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.958	ND<0.002	0.018	0.068	ND<0.02	ND<0.02
20-Oct-04	ND<15	16.6	6.99	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.386	ND<0.002	0.022	0.047	ND<0.02	ND<0.02
26-May-05	ND<15	15.9	7.42	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.612	ND<0.002	0.024	0.074	ND<0.02	ND<0.02
19-Oct-05	ND<15	17.5	6.69	ND<0.002	ND<0.01	ND<0.01	ND<0.01	3.15	ND<0.01	0.012	0.175	ND<0.02	ND<0.02
25-May-06	ND<15	ND<25	7.14	ND<0.002	ND<0.01	0.011	ND<0.01	0.598	ND<0.01	0.021	0.053	ND<0.02	ND<0.02
6-Oct-06	ND<15	16.6	6.52	ND<0.002	ND<0.02	ND<0.02	ND<0.02	2.1	0.001	0.026	0.123	ND<0.02	ND<0.02
7-May-07	68	17.5	7.62	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.641	ND<0.01	ND<0.02	0.069	ND<0.02	ND<0.02
8-Oct-07	ND<10	18	8.15	ND<0.002	ND<0.02	ND<0.02	ND<0.02	2.05	ND<0.01	ND<0.02	0.251	ND<0.02	ND<0.02
7-May-08	14	16	6.9	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.29	ND<0.01	ND<0.02	0.045	ND<0.02	ND<0.02
9-Oct-08	ND<10	16	7.5	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.56	ND<0.01	ND<0.02	0.053	ND<0.02	ND<0.02
26-May-09	ND<10	16	7.7	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.44	ND<0.01	0.03	0.073	ND<0.02	ND<0.02
29-Oct-09	ND<10	15	7.9	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.18	ND<0.01	0.026	0.046	ND<0.02	ND<0.02
26-May-10	24	14	7	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.16	ND<0.01	0.023	0.041	ND<0.005	ND<0.005
13-Oct-10	ND<10	14	7.7	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.18	ND<0.01	0.027	0.045	ND<0.005	ND<0.005
25-May-11	ND<10	12	8.6	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.047	ND<0.01	ND<0.02	0.046	ND<0.005	0.009
19-Oct-11	ND<10	16	8.5	ND<0.002	ND<0.005	ND<0.02	ND<0.02	ND<0.02	ND<0.01	ND<0.02	0.026	ND<0.005	ND<0.02
11-May-12	ND<10	17	7	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.034	ND<0.01	0.13	0.14	ND<0.005	ND<0.02
18-Oct-12	680	16	7.7	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.39	ND<0.01	ND<0.02	0.036	ND<0.005	ND<0.02
8-May-13	ND<10	16	7.2	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.068	ND<0.01	0.06	0.072	ND<0.005	ND<0.02
30-Oct-13	ND<10	18	7.5	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.052	ND<0.01	ND<0.1	0.031	ND<0.005	ND<0.02
20-May-14	17	18	7.3	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.54	ND<0.01	ND<0.02	0.1	ND<0.005	ND<0.02
15-Oct-14	ND<10	16	7	ND<0.001	ND<0.001	ND<0.001	ND<0.05	0.40	ND<0.01	ND<0.005	0.035	ND<0.001	0.005
26-May-15	ND<10	12	ND<5	ND<0.001	0.002	0.002	ND<0.05	2.1	0.001	0.16	0.31	0.003	0.008
15-Oct-15	ND<10	18	7	ND<0.001	ND<0.001	0.001	ND<0.05	ND<0.05	ND<0.001	0.009	0.017	ND<0.001	ND<0.005
10-May-16	ND<10	15	7	ND<0.001	ND<0.001	ND<0.001	ND<0.05	ND<0.05	ND<0.001	0.009	0.007	ND<0.001	ND<0.005
19-Oct-16	ND<10	16	7	ND<0.001	ND<0.001	0.001	ND<0.05	0.35	ND<0.001	0.023	0.060	ND<0.001	ND<0.005

Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit

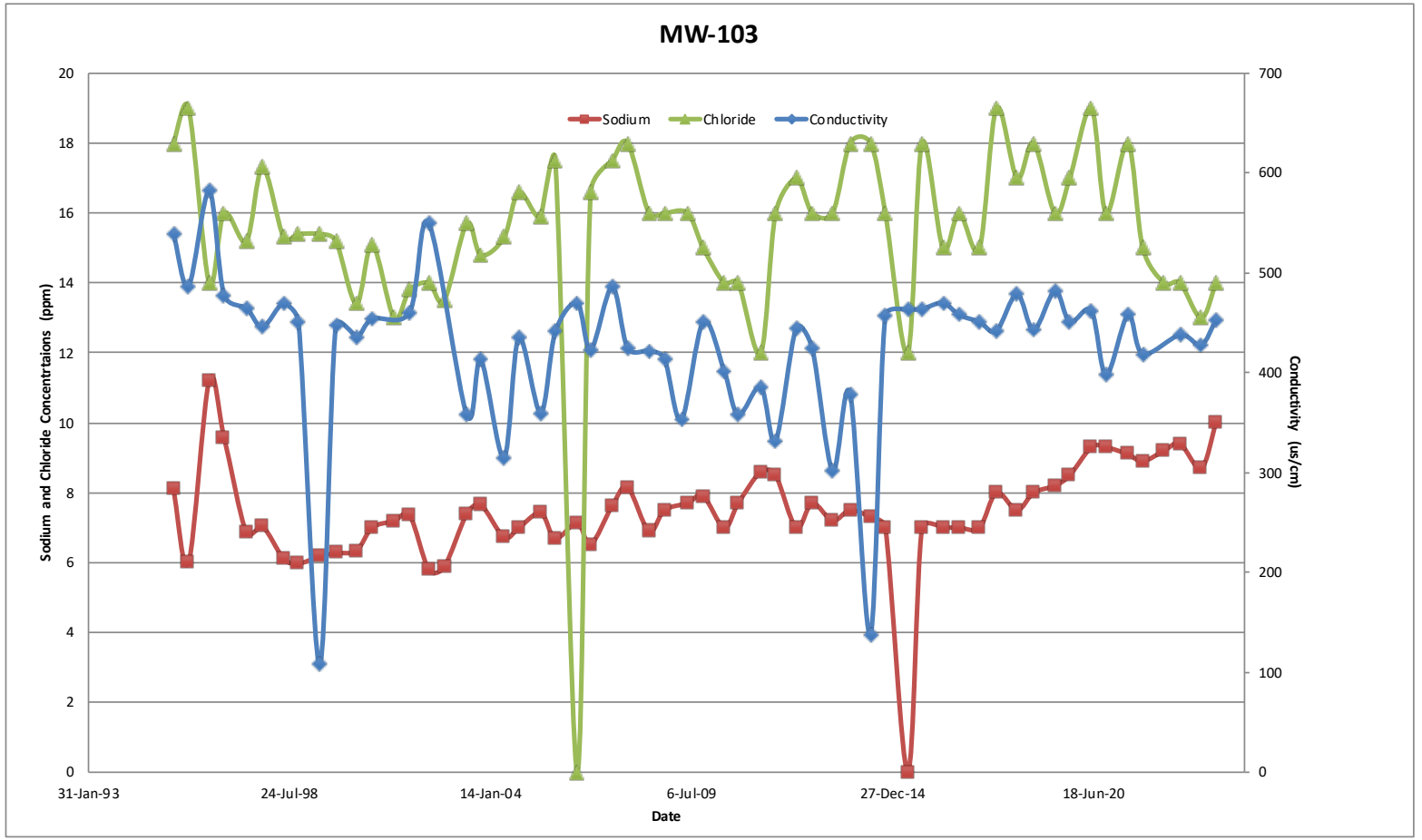
Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-103

Laboratory Anaytical Data

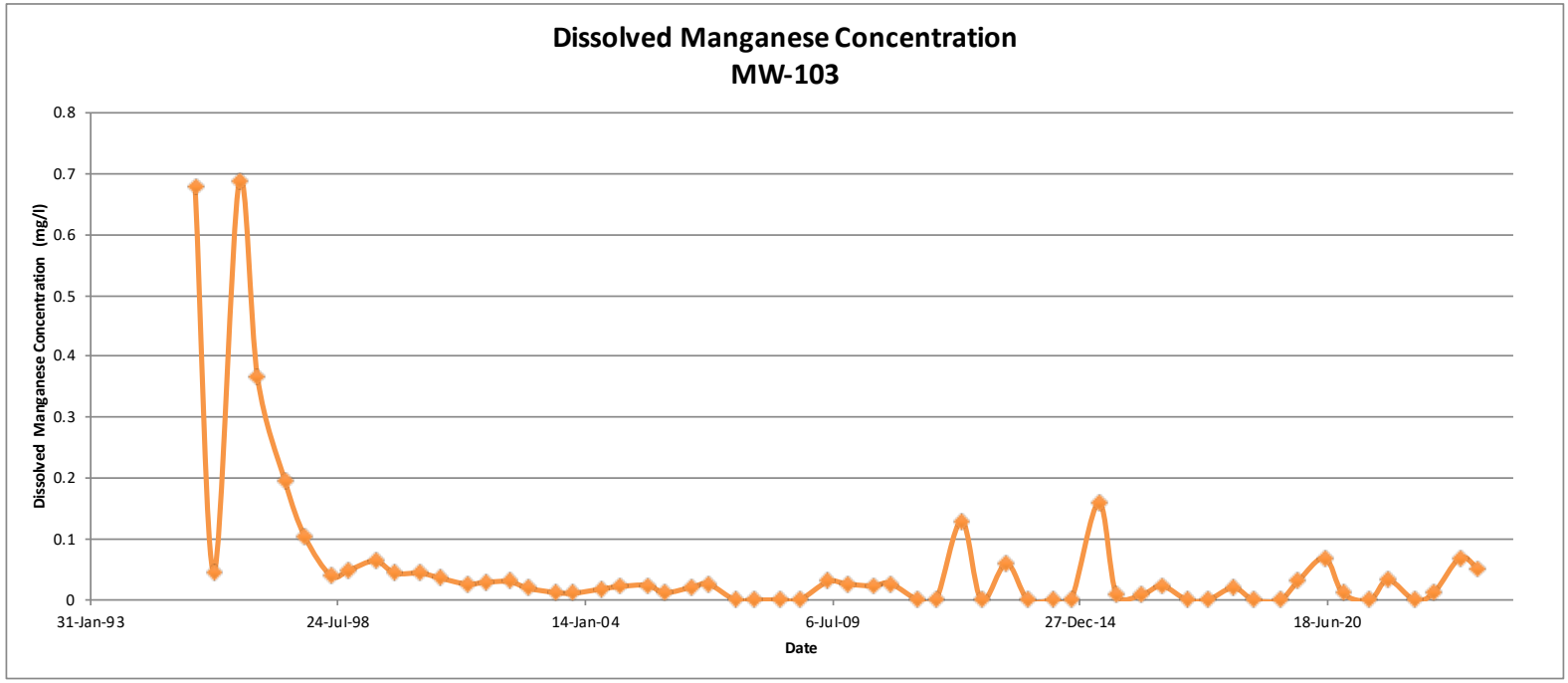
Date	COD	Chloride	Sodium	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Zinc
9-May-17	ND<10	15	7	ND<0.05	0.13	ND<0.001	ND<0.005	0.007	ND<0.005
24-Oct-17	ND<10	19	8	ND<0.05	0.10	ND<0.001	ND<0.005	0.029	ND<0.005
17-May-18	ND<10	17	7.5	ND<0.05	0.09	ND<0.001	0.020	0.066	ND<0.005
30-Oct-18	ND<10	18	8	ND<0.05	0.12	ND<0.001	ND<0.005	0.014	ND<0.005
29-May-19	ND<10	16	8.2	ND<0.05	ND<0.05	ND<0.001	ND<0.005	ND<0.005	ND<0.005
24-Oct-19	ND<10	17	8.5	ND<0.05	0.76	ND<0.001	0.031	0.13	ND<0.005
26-May-20	ND<10	19	9.3	ND<0.05	0.062	ND<0.001	0.069	0.12	ND<0.005
19-Oct-20	ND<10	16	9.3	ND<0.05	ND<0.05	ND<0.001	0.011	0.033	ND<0.005
25-May-21	ND<10	18	9.1	ND<0.05	ND<0.05	ND<0.001	ND<0.005	0.031	ND<0.005
19-Oct-21	ND<10	15	8.9	ND<0.05	0.52	ND<0.001	0.033	0.089	ND<0.005
20-May-22	ND<10	14	9.2	ND<0.05	ND<0.05	ND<0.001	ND<0.005	0.0067	ND<0.005
25-Oct-22	ND<10	14	9.4	ND<0.05	2.4	0.0028	0.012	0.6200	0.028
23-May-23	ND<10	13	8.7	ND<0.05	1.2	ND<0.001	0.069	0.19	ND<0.005
18-Oct-23	ND<10	14	10	ND<0.05	0.10	ND<0.001	0.051	0.091	ND<0.005

Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit
"-" = No data available

Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-103



Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-103



Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-309

Field Measurement Data

Date	Depth to	pH (SU)	Temp °C	Cond (us/cm)	Turbidity
5-Sep-90	-	-	-	180	-
8-May-91	-	-	8.7	303	-
22-May-91	-	-	8.7	318	-
9-Oct-91	-	-	-	315	-
10-Jun-93	-	7.68	9.4	380	-
13-Oct-93	-	7.04	7.1	328	-
24-May-94	-	7.27	8.6	367	-
19-Oct-94	-	8.01	7.3	309	-
25-May-95	-	7.52	10.2	351	-
24-Oct-95	-	7.74	11.7	346	-
15-May-96	-	7.8	8.5	348	-
11-Oct-96	-	7.68	6.6	332	102
21-May-97	-	7.61	8.1	359	1.42
28-Oct-97	-	7.34	6.8	337	2.01
27-May-98	38.95	7.85	8	359	4.16
21-Oct-98	38.12	7.77	8.1	372	5.11
19-May-99	38.95	7.88	8.5	278	29.4
28-Oct-99	40.54	8.25	10.2	383	162
19-May-00	44.16	8.79	8.4	310	72.1
24-Oct-00	40.05	7.39	11.6	377	74.6
29-May-01	39.4	8.23	9.7	367	110
31-Oct-01	39.65	6.39	7.8	370	27.4
9-May-02	41.85	7.43	10.1	428	27
10-Oct-02	42.72	7.65	10.5	-	37
22-May-03	42.23	7.92	11.1	285	43.3
9-Oct-03	42.4	7.90	13.3	346	62
26-May-04	39.86	7.73	13	261	114
20-Oct-04	38.4	7.63	10.7	359	73.7
26-May-05	38.7	7.54	9.4	290	68.2
19-Oct-05	39.34	7.30	9.3	371	121
25-May-06	37.43	7.48	11.7	383	70.4
6-Oct-06	38.9	7.87	9.7	390	60
7-May-07	37.61	7.61	11.1	366	29.1
8-Oct-07	38.94	6.97	10.5	356	NM
7-May-08	32.74	7.80	10.6	361	22.5
9-Oct-08	38.45	7.88	11.5	356	15.8
26-May-09	38.68	7.99	11	317	22.1
29-Oct-09	38.92	7.78	10.9	413	33.4

VOC Laboratory Data

Date	Toluene (ug/l)	1,1-	Benzene (ug/l)	1,2,4-	4-Isopropyltoluene	Total Xylenes
5-Sep-90	ND	ND	ND	ND	ND	ND
8-May-91	ND	ND	ND	ND	ND	ND
22-May-91	ND	ND<2	ND	ND	ND	ND
9-Oct-91	ND	ND	ND	ND	ND	ND
10-Jun-93	ND	ND<5	ND	ND	ND	ND
13-Oct-93	ND	ND<1	ND	ND	ND	ND
24-May-94	ND	ND<1	ND	ND	ND	ND
19-Oct-94	ND	1	ND	ND	ND	ND
25-May-95	ND	ND<2	ND	ND	ND	ND
24-Oct-95	ND	ND<2	ND	ND	ND	ND
15-May-96	ND	ND	ND	ND	ND	ND
11-Oct-96	ND	ND	ND	ND	ND	ND
21-May-97	ND	ND	ND	ND	ND	ND
28-Oct-97	ND	ND	ND	ND	ND	ND
27-May-98	ND	ND	ND	ND	ND	ND
21-Oct-98	ND	ND	ND	ND	ND	ND
19-May-99	ND<1	ND<1	ND	ND	ND	ND
28-Oct-99	1.6	ND<1	ND	ND	ND	ND
19-May-00	ND<1	ND<1	ND	ND	ND	ND
24-Oct-00	ND<1	ND<1	ND	ND	ND	ND
29-May-01	ND<1	ND<1	ND	ND	ND	ND
31-Oct-01	ND<1	ND<1	ND	ND	ND	ND
9-May-02	ND<1	ND<1	ND	ND	ND	ND
10-Oct-02	ND<1	ND<1	ND	ND	ND	ND
22-May-03	ND<1	ND<1	ND	ND	ND	ND
9-Oct-03	ND<1	ND<1	ND	ND	ND	ND
26-May-04	ND<1	ND<1	ND	ND	ND	ND
20-Oct-04	ND<1	ND<1	ND	ND	ND	ND
26-May-05	ND<1	ND<1	ND	ND	ND	ND
19-Oct-05	1.9	ND<1	1	ND	ND	ND
25-May-06	1.3	ND<1	ND<1	ND	ND	ND
6-Oct-06	ND<1	ND<1	ND<1	ND	ND	ND
7-May-07	1	ND<1	ND<1	ND	ND	ND
8-Oct-07	ND<1	ND<1	ND<1	ND	ND	ND
7-May-08	1	ND<1	ND<1	ND	ND	ND
9-Oct-08	ND<1	ND<1	ND<1	ND	ND	ND
26-May-09	ND<1	ND<1	ND<1	ND	ND	ND
29-Oct-09	1.1	ND<1	ND<1	ND	ND	ND

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled
"-" = No data available
Only VOCs reported above detection limits one or more times are displayed

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-309

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
26-May-10	38.74	8.34	12.1	372	20.7
13-Oct-10	39.34	7.68	11.7	350	NM
25-May-11	35.38	7.82	12.3	176	16.75
19-Oct-11	36.93	7.69	11.5	291	10.58
11-May-12	39.18	7.52	13	399.9	4.65
18-Oct-12	40.92	7.90	11.8	449	14.3
4-Jun-13	40.87	7.84	9.9	410	4.67
30-Oct-13	40.55	7.29	9.1	403.8	1.49
21-May-14	39.74	7.71	11.7	113	11.4
15-Oct-14	40.88	7.80	13.1	456	57.83
26-May-15	41.08	8.78	11.2	470	115
15-Oct-15	40.14	7.63	9.4	470	21.0
10-May-16	40.51	8.40	9.3	458	3.54
19-Oct-16	41.89	8.35	10.0	495	5.59
9-May-17	41.72	8.04	9.3	462	5.65
24-Oct-17	41.00	8.20	10.0	484	4.53
17-May-18	39.39	8.06	10.0	474	3.00
30-Oct-18	41.07	8.35	8.1	472	NM
29-May-19	38.24	8.14	9.4	457	27.80
24-Oct-19	38.38	8.14	9.1	419	1.25
26-May-20	37.50	8.22	10.0	440	0.02
19-Oct-20	40.05	8.10	9.3	390	0.02
25-May-21	41.65	8.19	9.7	423	0.02
19-Oct-21	42.04	8.29	9.1	434	0.91
20-May-22	39.39	8.21	16.9	NM	0.02
25-Oct-22	40.87	8.08	9.4	475	0.02
23-May-23	39.90	7.73	9.4	470	0.02
18-Oct-23	37.75	8.16	9.0	471	2.57

VOC Laboratory Data

Date	Toluene (ug/l)	1,1-dichloroethane (ug/l)	Benzene (ug/l)	1,2,4-Trimethylbenzene (ug/l)	4-Isopropyltoluene (ug/l)	Total Xylenes (ug/l)
26-May-10	ND<1	ND<1	ND<1	ND	ND	ND
13-Oct-10	ND<1	ND<1	ND<1	ND	ND	ND
25-May-11	ND<1	ND<1	ND<1	ND	ND	ND
19-Oct-11	ND<1	ND<1	ND<1	ND	ND	ND
11-May-12	ND<1	ND<1	ND<1	ND	ND	ND
18-Oct-12	ND<1	ND<1	ND<1	ND	ND	ND
4-Jun-13	5.6	ND<1	ND<1	1.5	1	3.3
30-Oct-13	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
21-May-14	ND<1	ND<1	ND<1	ND<1	ND<1	ND<1
15-Oct-14	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
26-May-15	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
15-Oct-15	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
10-May-16	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
19-Oct-16	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
9-May-17	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
24-Oct-17	NT	NT	NT	NT	NT	NT
17-May-18	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
30-Oct-18	NT	NT	NT	NT	NT	NT
29-May-19	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
24-Oct-19	NT	NT	NT	NT	NT	NT
26-May-20	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
19-Oct-20	NT	NT	NT	NT	NT	NT
25-May-21	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
25-May-21	NT	NT	NT	NT	NT	NT
20-May-22	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
25-Oct-22	NT	NT	NT	NT	NT	NT
23-May-23	ND<1	ND<2	ND<1	ND<1	ND<1	ND<2
18-Oct-23	NT	NT	NT	NT	NT	NT

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled
NT = Not Tested
Only VOCs reported above detection limits one or more times are displayed

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-309

Laboratory Anaytical Data

Date	COD	Chloride	Sodium	Total Cadmium	Total Chromium	Total Copper	Dissolved Iron	Total Iron	Dissolved Manganese	Total Manganese	Total Nickel	Total Zinc
5-Sep-90	-	8	3.79	-	-	-	0.01	-	0.215	-	-	-
8-May-91	-	9.6	5.65	-	-	-	0.147	-	0.265	-	-	-
22-May-91	ND<10	-	-	-	-	-	-	-	-	-	-	-
9-Oct-91	-	9	3.44	-	-	-	ND<0.01	-	0.127	-	-	-
10-Jun-93	-	8	3.45	-	-	-	ND<0.03	-	0.02	-	-	-
13-Oct-93	ND<2	7.1	3.3	-	-	-	0.03	-	0.18	-	-	-
24-May-94	28	7.5	8	-	-	-	ND<0.01	-	0.01	-	-	-
19-Oct-94	ND<2.5	7.5	4.1	-	-	-	ND<0.01	-	0.17	-	-	-
25-May-95	2.6	8	3.1	ND<0.001	ND<0.005	ND<0.03	ND<0.03	0.03	0.21	0.29	ND<0.05	0.045
24-Oct-95	ND<20	10	2.8	ND<0.001	ND<0.005	ND<0.03	0.07	0.09	0.18	0.31	ND<0.05	0.044
15-May-96	ND<20	7	3.65	ND<0.001	ND<0.025	ND<0.02	ND<0.05	0.157	0.02	0.932	ND<0.025	0.046
11-Oct-96	ND<5	7.5	4.39	ND<0.001	0.009	0.023	ND<0.02	6.59	0.947	0.565	ND<0.05	0.033
21-May-97	ND<5	11.2	4.21	ND<0.002	ND<0.01	0.081	ND<0.01	-	0.005	-	ND<0.02	ND<0.01
28-Oct-97	ND<20	81	3.44	ND<0.002	ND<0.01	ND<0.01	ND<0.01	0.09	0.005	0.017	ND<0.02	ND<0.01
27-May-98	ND<20	11.2	4.56	ND<0.002	ND<0.01	ND<0.01	0.031	0.594	0.118	0.314	ND<0.02	0.014
21-Oct-98	ND<20	11.2	3.66	ND<0.002	ND<0.01	ND<0.02	ND<0.02	0.917	0.011	0.164	ND<0.02	ND<0.01
19-May-99	ND<20	12.5	3.26	ND<0.003	ND<0.01	ND<0.01	0.019	0.02	0.119	0.109	ND<0.02	ND<0.01
28-Oct-99	ND<15	9.66	3.37	ND<0.003	ND<0.01	ND<0.01	0.011	5.97	0.006	0.424	ND<0.02	0.017
19-May-00	ND<15	10.8	4.08	ND<0.003	ND<0.01	ND<0.01	ND<0.01	3.4	0.104	0.267	ND<0.02	0.023
24-Oct-00	ND<15	10.5	4.8	ND<0.003	ND<0.01	ND<0.01	ND<0.01	5.78	0.021	0.35	ND<0.02	0.013
29-May-01	ND<15	10	3.94	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.52	0.06	0.074	ND<0.02	ND<0.02
31-Oct-01	ND<15	9.88	4.24	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.27	0.079	0.15	ND<0.02	ND<0.02
9-May-02	ND<15	10.4	3.27	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.76	0.122	0.187	ND<0.02	ND<0.02
10-Oct-02	ND<15	10.4	3.43	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.964	0.126	0.243	ND<0.02	ND<0.02
22-May-03	ND<15	11.4	3.75	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.662	0.092	0.199	ND<0.02	ND<0.02
9-Oct-03	ND<15	11.2	4.4	ND<0.003	ND<0.01	ND<0.01	ND<0.01	2.76	0.131	0.303	ND<0.02	ND<0.02
26-May-04	ND<15	10.7	4.08	ND<0.003	0.013	ND<0.01	ND<0.01	3.83	0.141	0.382	ND<0.02	ND<0.02
20-Oct-04	18	10.8	3.87	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.92	0.006	0.203	ND<0.02	ND<0.02
26-May-05	ND<15	9.52	3.94	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.75	0.005	0.231	ND<0.02	ND<0.02
19-Oct-05	ND<15	10.6	3.66	ND<0.002	ND<0.01	ND<0.01	ND<0.01	4.97	0.04	0.43	ND<0.02	ND<0.02
25-May-06	ND<15	ND<25	3.81	ND<0.002	ND<0.01	ND<0.01	ND<0.01	2.51	0.084	0.257	ND<0.02	ND<0.02
6-Oct-06	ND<15	8.5	3.98	ND<0.002	ND<0.02	ND<0.02	ND<0.02	2.13	0.048	0.224	ND<0.02	ND<0.02
7-May-07	118	9.67	3.96	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.524	0.02	0.079	ND<0.02	ND<0.02
8-Oct-07	ND<10	9	4.36	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.549	0.107	0.167	ND<0.02	ND<0.02
7-May-08	ND<10	9.8	4.4	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.7	0.15	0.22	ND<0.02	ND<0.02
9-Oct-08	ND<10	9.8	4.3	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.7	0.12	0.2	ND<0.02	ND<0.02
26-May-09	ND<10	11	4.5	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.55	0.18	0.28	ND<0.02	ND<0.02
29-Oct-09	ND<10	12	4.4	ND<0.002	ND<0.02	ND<0.02	ND<0.02	1	0.096	0.2	ND<0.02	ND<0.02
26-May-10	ND<10	13	4.1	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.19	0.069	0.14	ND<0.005	ND<0.005
13-Oct-10	ND<10	11	4.6	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.6	0.02	0.075	ND<0.005	ND<0.005
25-May-11	ND<10	10	4.7	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.22	0.02	0.72	ND<0.005	0.01
19-Oct-11	ND<10	8.3	3.5	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.2	0.02	0.064	ND<0.005	ND<0.02
11-May-12	ND<10	12	4.1	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.16	0.02	0.058	ND<0.005	ND<0.02
18-Oct-12	13	13	4.8	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.14	0.04	0.094	ND<0.005	ND<0.02
4-Jun-13	ND<10	13	5.1	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.087	0.13	0.17	ND<0.005	ND<0.02
30-Oct-13	10	14	5	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.072	0.054	0.091	ND<0.005	ND<0.02
21-May-14	16	14	4.8	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.4	ND<0.02	0.13	ND<0.005	ND<0.02
15-Oct-14	ND<10	11	ND<5	ND<0.001	0.002	0.002	ND<0.05	1.7	0.073	0.23	0.003	0.018
26-May-15	ND<10	16	7	ND<0.001	ND<0.001	ND<0.001	ND<0.05	ND<0.05	0.040	0.040	ND<0.001	ND<0.005
15-Oct-15	ND<10	11	5	ND<0.001	ND<0.001	ND<0.001	ND<0.05	0.43	0.16	0.270	0.001	ND<0.005
10-May-16	ND<10	11	ND<5	ND<0.001	ND<0.001	ND<0.001	ND<0.05	0.09	0.14	0.15	ND<0.001	ND<0.005
19-Oct-16	ND<10	12	5	ND<0.001	ND<0.001	ND<0.001	ND<0.05	0.10	0.18	0.20	ND<0.001	ND<0.005

Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit
"-" = No data available

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-309

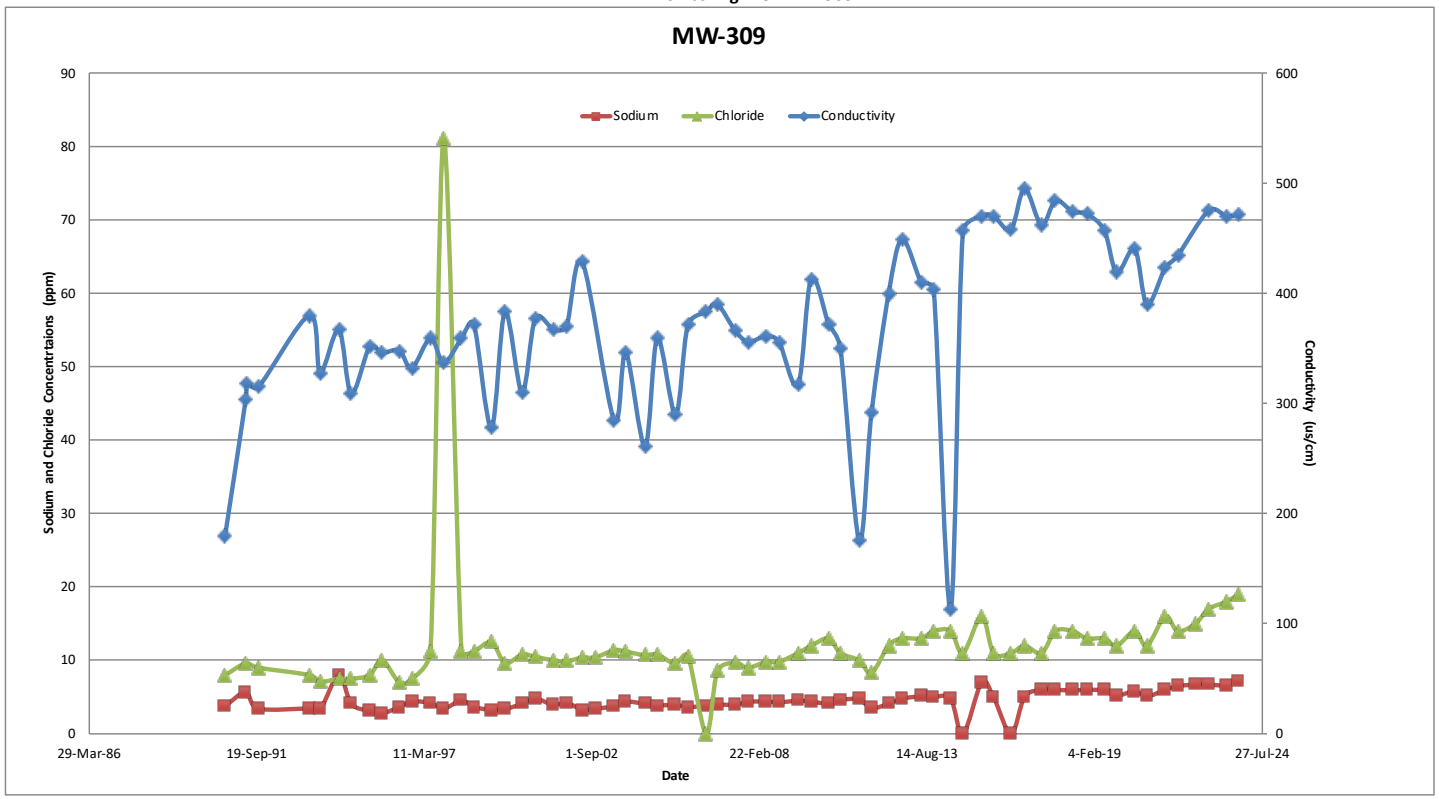
Laboratory Anaytical Data

Date	COD	Chloride	Sodium	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Zinc
9-May-17	ND<10	11	6	ND<0.05	0.10	ND<0.001	0.16	0.20	ND<0.005
24-Oct-17	ND<10	14	6	ND<0.05	ND<0.05	ND<0.001	0.19	0.21	ND<0.005
17-May-18	ND<10	14	5.9	ND<0.05	ND<0.05	ND<0.001	0.14	0.16	ND<0.005
30-Oct-18	ND<10	13	6	ND<0.05	ND<0.05	ND<0.001	0.18	0.19	ND<0.005
29-May-19	ND<10	13	5.9	ND<0.05	ND<0.05	ND<0.001	0.13	0.14	ND<0.005
24-Oct-19	ND<10	12	5.2	ND<0.05	ND<0.05	ND<0.001	0.018	0.033	ND<0.005
26-May-20	ND<10	14	5.8	ND<0.05	ND<0.05	ND<0.001	0.11	0.11	0.0066
19-Oct-20	ND<10	12	5.1	ND<0.05	ND<0.05	ND<0.001	0.085	0.097	ND<0.005
25-May-21	ND<10	16	6.0	ND<0.05	ND<0.05	ND<0.001	0.21	0.22	ND<0.005
19-Oct-21	ND<10	14	6.5	ND<0.05	ND<0.05	ND<0.001	0.23	0.25	0.011
20-May-22	ND<10	15	6.7	ND<0.05	ND<0.05	ND<0.001	0.24	0.26	ND<0.005
25-Oct-22	ND<10	17	6.7	ND<0.05	ND<0.05	ND<0.001	0.47	0.45	0.0065
23-May-23	ND<10	18	6.6	ND<0.05	ND<0.05	ND<0.001	0.33	0.31	ND<0.005
18-Oct-23	ND<10	19	7.2	ND<0.05	ND<0.05	ND<0.001	0.26	0.29	0.0062

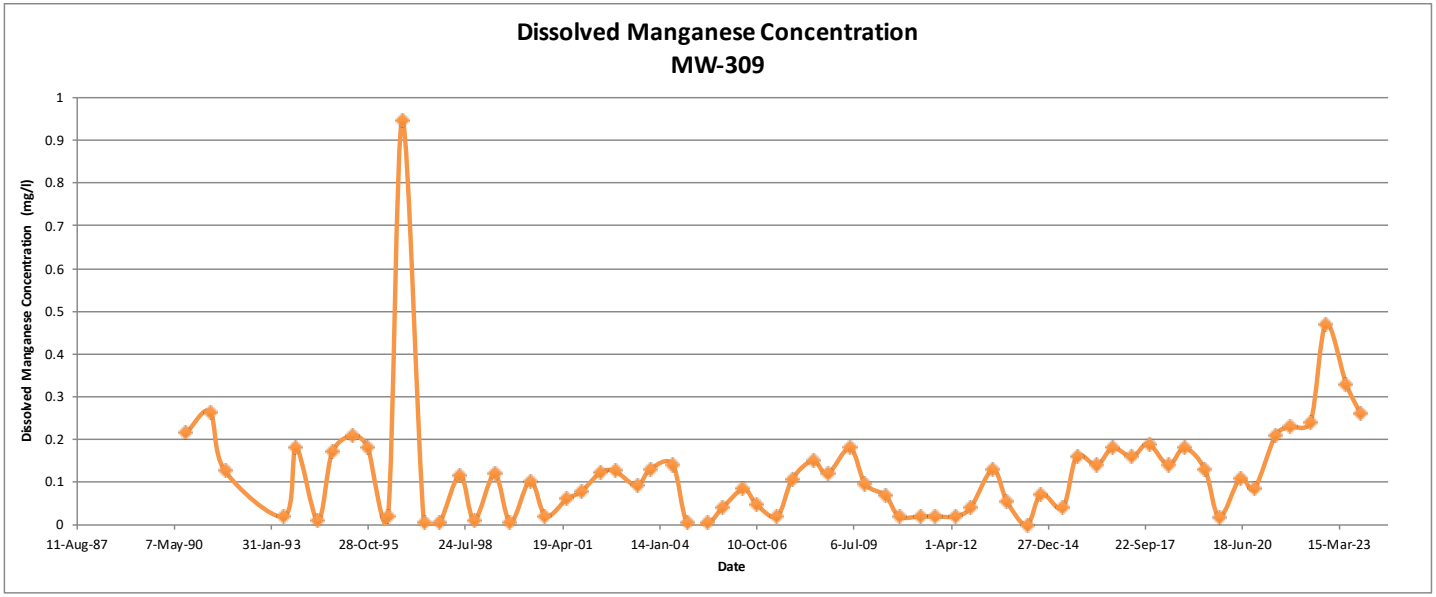
Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit
"-" = No data available

Secondary Dissolved Mn Calculation	
# Samples	64
Average Concentration	0.13
Secondary Dissolved Mn Calculation (1.1*AVG)	0.14

Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-309



Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-309



Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-335

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
5-Sep-91	-	-	-	2920	-
28-Oct-99	128.52	7.65	9.4	525	80
19-May-00	126.95	9	9.2	524	10.9
24-Oct-00	127.82	8.17	10.6	677	4.39
29-May-01	126.64	7.62	10.2	976	11.7
31-Oct-01	128.8	6.41	8.2	720	27.1
9-May-02	129.28	7.5	10.6	785	23
10-Oct-02	130.18	7.47	11.7	NT	13
22-May-03	129.57	7.58	10.6	588	15.4
9-Oct-03	129.95	7.35	13.5	1104	2
26-May-04	127.55	7.5	12.3	740	34.2
20-Oct-04	NM	7.3	10.9	1093	16
26-May-05	126.3	7.25	9.9	1362	38
19-Oct-05	126.12	7.42	10	1951	110
25-May-06	NM	7.55	13.2	1226	28.7
6-Oct-06	125.9	7.44	10.6	2800	9.1
7-May-07	NM	7.35	11.6	2860	17.1
8-Oct-07	126.79	7.04	12	3020	NM
7-May-08	125.73	6.9	11.3	1200	67
9-Oct-08	126.15	7.35	12.6	1220	60.8
26-May-09	126.6	7.49	12	892	29.6
29-Oct-09	NM	7.42	11.7	1252	51.6
26-May-10	126.64	7.66	13.5	1041	31.9
13-Oct-10	127.01	7.55	12.2	758	NM
25-May-11	124.1	7.55	12.8	687	4.7
19-Oct-11	124.5	7.15	12.4	659	3.62
11-May-12	126.9	7.36	9.9	1101	10.59
18-Oct-12	128.54	8.15	12.5	852	1.83
8-May-13	NM	7.89	15.5	543	1.51
30-Oct-13	119.02	7.09	8.3	664	101
21-May-14	127.45	7.01	11.9	157.3	19.7
15-Oct-14	128.55	8.19	20.1	999	34.44
26-May-15	129.44	8.18	22.3	878	79.4
15-Oct-15	128.05	7.76	10.4	1061	17.2
10-May-16	128.09	8.20	9.5	960	14.7
19-Oct-16	129.79	7.90	11.3	1125	3.70
9-May-17	129.06	7.69	9.7	1206	9.27
24-Oct-17	128.73	7.79	11.4	990	2.87
17-May-18	127.42	7.57	11.8	915	2.01
30-Oct-18	128.64	7.96	11.6	1077	11.60

Notes:
Data prior to October 2014 collected by others
ND< = Non detect less than detection limit
NS = Not Sampled
"-" = No data available

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-335

Field Measurement Data

Date	Depth to Water (ft)	pH (SU)	Temp °C	Cond (us/cm)	Turbidity (ntu)
29-May-19	126.29	7.65	10.6	1189	3.2
24-Oct-19	126.4	7.79	11.2	1241	1.05
26-May-20	125.57	7.89	11.7	858	0.02
19-Oct-20	127.56	7.57	11.4	768	1.20
25-May-21	129.00	7.78	11.9	795	1.51
19-Oct-21	129.78	7.66	11.8	800	6.54
20-May-22	128.00	7.89	14.9	NM	0.02
25-Oct-22	128.84	7.57	10.9	1195	2.05
18-May-23	127.87	7.85	10.0	981	1.68
18-Oct-23	125.74	7.71	10.7	1575	11.0

Notes:
ND< = Non detect less than detection limit
NS = Not Sampled
"-" = No data available

Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-335

Laboratory Anaytical Data

Date	COD	Chloride	Sodium	Total Cadmium	Total Chromium	Total Copper	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Nickel	Total Zinc
5-Sep-91	-	820	432	-	-	-	139	-	-	-	-	-	-
17-Oct-91	-	536	269	-	-	-	11	-	-	273	-	-	-
28-Oct-99	ND<15	54.8	29.2	ND<0.003	ND<0.01	ND<0.01	ND<0.01	5.01	0.004	0.05	0.373	ND<0.02	0.012
19-May-00	ND<15	52.7	28	ND<0.003	0.01	ND<0.01	ND<0.01	1.17	0.003	0.053	0.372	ND<0.02	0.015
24-Oct-00	ND<15	111	67.7	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.636	ND<0.02	0.045	0.12	ND<0.02	0.015
29-May-01	ND<15	160	101	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.36	ND<0.02	0.023	0.09	ND<0.02	ND<0.02
31-Oct-01	ND<15	104	69.7	ND<0.003	ND<0.01	ND<0.01	0.022	1.48	0.003	0.094	1.23	ND<0.02	ND<0.02
9-May-02	ND<15	83	40.6	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.935	ND<0.02	0.008	0.536	ND<0.02	ND<0.02
10-Oct-02	ND<15	115	51.1	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.43	ND<0.02	0.008	1.08	ND<0.02	ND<0.02
22-May-03	ND<15	171	98.2	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.948	ND<0.02	0.04	0.514	ND<0.02	ND<0.02
9-Oct-03	ND<15	336	183	ND<0.003	ND<0.01	ND<0.01	ND<0.01	0.121	ND<0.02	0.017	0.1	ND<0.02	ND<0.02
26-May-04	ND<15	272	177	ND<0.003	ND<0.01	ND<0.01	ND<0.01	1.44	ND<0.02	ND<0.005	0.1	ND<0.02	ND<0.02
20-Oct-04	23	637	291	ND<0.003	ND<0.01	ND<0.01	0.091	2.28	0.002	0.198	1.18	ND<0.02	ND<0.02
26-May-05	ND<15	935	589	ND<0.003	ND<0.01	ND<0.01	0.016	0.926	ND<0.002	ND<0.005	0.412	ND<0.02	ND<0.02
19-Oct-05	ND<15	449	229	ND<0.002	ND<0.01	ND<0.01	ND<0.01	3.99	ND<0.01	ND<0.005	1.69	ND<0.02	ND<0.02
25-May-06	ND<15	348	218	ND<0.002	ND<0.01	0.017	ND<0.01	1.85	ND<0.01	ND<0.005	0.592	ND<0.02	ND<0.02
6-Oct-06	ND<15	629	377	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.386	ND<0.001	ND<0.02	0.138	ND<0.02	ND<0.02
7-May-07	69	807	507	ND<0.002	ND<0.02	ND<0.02	ND<0.02	5.21	ND<0.001	ND<0.02	0.198	ND<0.02	ND<0.02
8-Oct-07	ND<10	250	164	ND<0.002	ND<0.02	ND<0.02	ND<0.02	0.795	ND<0.001	ND<0.02	0.093	ND<0.02	ND<0.02
7-May-08	ND<10	240	150	ND<0.002	ND<0.02	ND<0.02	ND<0.02	1.7	ND<0.001	ND<0.02	0.36	ND<0.02	ND<0.02
9-Oct-08	14	290	150	ND<0.002	ND<0.02	ND<0.02	ND<0.02	3.4	0.002	ND<0.02	0.79	ND<0.02	ND<0.02
26-May-09	ND<10	240	140	ND<0.002	ND<0.02	ND<0.02	ND<0.02	2.8	0.002	ND<0.02	0.78	ND<0.02	ND<0.02
29-Oct-09	39	240	160	ND<0.002	ND<0.02	ND<0.02	ND<0.02	2.9	0.001	ND<0.02	0.82	ND<0.02	ND<0.02
26-May-10	18	250	140	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.75	ND<0.001	ND<0.02	0.27	ND<0.005	ND<0.005
13-Oct-10	10	190	120	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.56	ND<0.001	ND<0.02	0.25	ND<0.005	ND<0.005
25-May-11	26	200	150	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.16	ND<0.001	ND<0.02	0.041	ND<0.005	0.009
19-Oct-11	22	180	140	ND<0.002	ND<0.005	ND<0.02	0.29	0.54	ND<0.001	0.32	0.23	ND<0.005	ND<0.02
11-May-12	16	200	110	ND<0.002	ND<0.005	ND<0.02	0.025	0.33	0.001	0.84	1.1	ND<0.005	ND<0.02
18-Oct-12	26	110	76	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.13	ND<0.001	ND<0.02	0.036	ND<0.005	ND<0.02
8-May-13	ND<10	70	49	ND<0.002	ND<0.005	ND<0.02	ND<0.02	0.088	ND<0.001	ND<0.02	0.023	ND<0.005	ND<0.02
30-Oct-13	26	83	50	ND<0.002	ND<0.005	ND<0.02	0.17	5.5	0.006	0.12	0.96	ND<0.005	ND<0.02
21-May-14	140	94	59	ND<0.002	ND<0.005	ND<0.02	0.024	1.2	0.001	0.045	0.25	ND<0.005	ND<0.02
15-Oct-14	ND<10	130	62	ND<0.001	ND<0.001	0.003	ND<0.05	1.1	0.001	0.009	0.28	0.001	0.017
26-May-15	ND<10	110	67	0.004	0.001	0.011	ND<0.05	2.3	0.005	ND<0.005	0.39	0.004	0.033
15-Oct-15	ND<10	160	84	ND<0.001	ND<0.001	0.001	ND<0.05	0.46	ND<0.001	0.006	0.078	ND<0.001	ND<0.005
10-May-16	ND<10	130	65	ND<0.001	ND<0.001	ND<0.001	ND<0.05	0.33	ND<0.001	ND<0.005	0.062	0.001	ND<0.005
19-Oct-16	ND<10	180	87	ND<0.001	ND<0.001	ND<0.001	ND<0.05	0.14	ND<0.001	ND<0.005	0.033	ND<0.001	ND<0.005

Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit
"-" = No data available

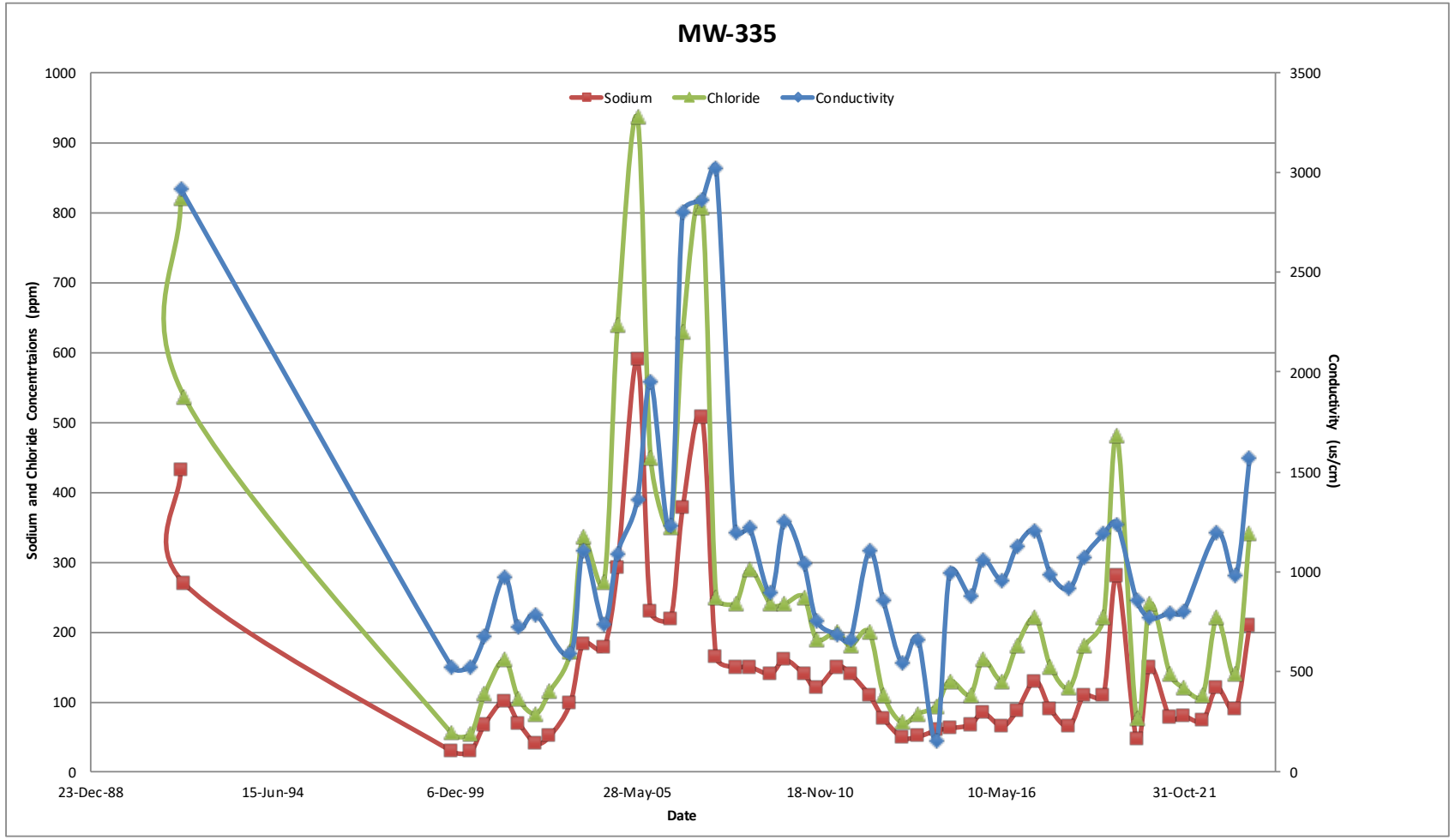
Bristol Landfill Groundwater Monitoring Data Table
Monitoring Well MW-335

Laboratory Anaytical Data

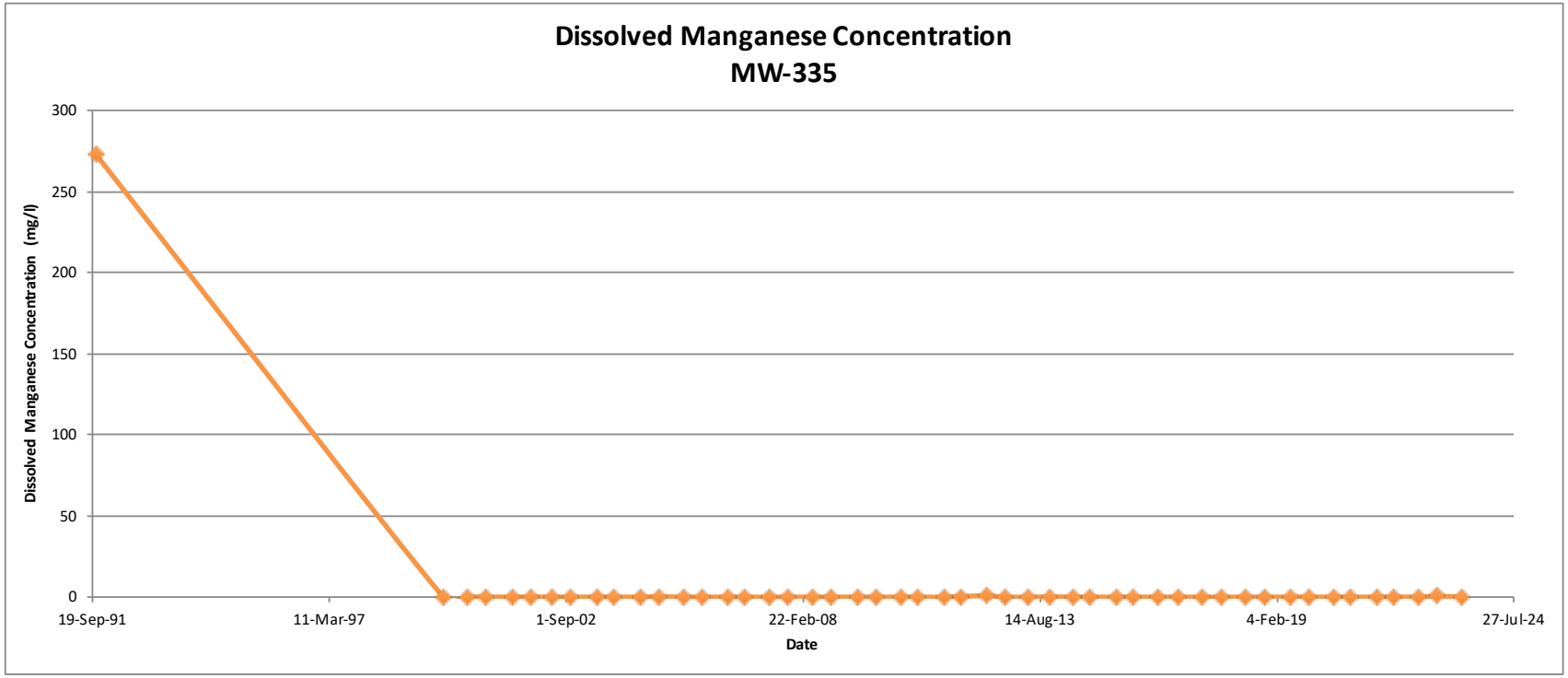
Date	COD	Chloride	Sodium	Dissolved Iron	Total Iron	Total Lead	Dissolved Manganese	Total Manganese	Total Zinc
9-May-17	ND<10	220	130	ND<0.05	0.60	0.001	ND<0.005	0.15	ND<0.005
24-Oct-17	ND<10	150	89	ND<0.05	0.10	ND<0.001	ND<0.005	0.024	ND<0.005
17-May-18	ND<10	120	65	ND<0.05	0.06	ND<0.001	ND<0.005	0.022	ND<0.005
30-Oct-18	ND<10	180	110	ND<0.05	0.39	ND<0.001	ND<0.005	0.073	ND<0.005
29-May-19	ND<10	220	110	ND<0.05	0.12	ND<0.001	ND<0.005	0.033	ND<0.005
24-Oct-19	ND<10	480	280	ND<0.05	ND<0.05	ND<0.001	0.057	0.057	ND<0.005
26-May-20	ND<10	76	46	ND<0.05	0.12	ND<0.001	ND<0.005	0.027	ND<0.005
19-Oct-20	ND<10	240	150	ND<0.05	0.22	ND<0.001	0.023	0.079	ND<0.005
25-May-21	ND<10	140	77	ND<0.05	0.14	ND<0.001	ND<0.005	0.040	ND<0.005
19-Oct-21	ND<10	120	80	ND<0.05	0.39	ND<0.001	0.10	0.27	0.00064
20-May-22	ND<10	110	73	ND<0.05	0.085	ND<0.001	ND<0.005	0.013	ND<0.005
25-Oct-22	ND<10	220	120	0.17	0.280	ND<0.001	0.51	0.380	ND<0.005
18-May-23	ND<10	140	90	ND<0.05	0.26	ND<0.001	ND<0.005	0.036	ND<0.005
18-Oct-23	ND<10	340	210	ND<0.05	0.63	ND<0.001	ND<0.005	0.12	ND<0.005

Notes
Results in mg/l unless otherwise noted.
ND< = Non detect less than detection limit
"-" = No data available

Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-335



Bristol Landfill Groundwater Monitoring Data
Monitoring Well MW-335



Bristol Landfill Groundwater Monitoring Data Table
RPD Calculation

Sample Date: 10/18/23			
	MW-309	Duplicate	RPD
COD	ND<10	ND<10	-
Chloride	19	19	0.0
Sodium	7.2	6.9	2.1
Dissolved Iron	ND<0.05	ND<0.05	-
Total Iron	ND<0.05	ND<0.05	-
Total Lead	ND<0.001	ND<0.001	-
Dissolved Manganese	0.26	0.26	0.0
Total Manganese	0.29	0.28	1.8
Total Zinc	0.0062	0.0060	1.6

NOTES:
Concentrations in mg/L
RPD = Relative Percent Difference

APPENDIX C

LABORATORY ANALYTICAL DATA

Eastern Analytical, Inc.

professional laboratory and drilling services

Angela Emerson
LE Environmental LLC
21 North Main Street #1
Waterbury , VT 05676

Laboratory Report for:

Eastern Analytical, Inc. ID: 268733
Client Identification: Bristol Landfill / 14-013
Date Received: 10/20/2023

Enclosed are the analytical results per the Chain of Custody for sample(s) in the referenced project. All analyses were performed in accordance with our QA/QC Program, NELAP and other applicable state requirements. All quality control criteria was within acceptance criteria unless noted on the report pages. Results are for the exclusive use of the client named on this report and will not be released to a third party without consent.

The following information is contained within this report: Sample Conditions summary, Analytical Results/Data, Quality Control data (if requested) and copies of the Chain of Custody. This report may not be reproduced except in full, without the written approval of the laboratory.

The following standard abbreviations and conventions apply to all EAI reports:
< : "less than" followed by the reporting limit
> : "greater than" followed by the reporting limit
%R : % Recovery

Certifications:
Eastern Analytical, Inc. maintains certification in the following states: Connecticut (PH-0492), Maine (NH005), Massachusetts (M-NH005), New Hampshire/NELAP (1012), Rhode Island (269), Vermont (VT1012), New York (12072) and West Virginia (9910C). Please refer to our website at www.easternanalytical.com for a copy of our certificates and accredited parameters.

References:
- EPA 600/4-79-020, 1983
- Standard Methods for Examination of Water and Wastewater, 20th, 21st, 22nd & 23rd edition or noted revision year.
- Test Methods for Evaluating Solid Waste SW 846 3rd Edition including updates IVA and IVB
- Hach Water Analysis Handbook, 4th edition, 1992
- ASTM International

If you have any questions regarding the results contained within, please feel free to contact customer service. Unless otherwise requested, we will dispose of the sample(s) 6 weeks from the sample receipt date.

We appreciate this opportunity to be of service and look forward to your continued patronage.

Sincerely,

Lorraine Olashaw, Lab Director — Date 11.8.23

SAMPLE CONDITIONS PAGE

EAI ID#: **268733**

Client: **LE Environmental LLC**

Client Designation: **Bristol Landfill / 14-013**

Temperature upon receipt (°C): 0.6 **Received on ice or cold packs (Yes/No): Y**

Acceptable temperature range (°C): 0-6

Lab ID	Sample ID	Date Received	Date/Time Sampled	Sample Matrix	% Dry Weight	Exceptions/Comments (other than thermal preservation)
268733.01	MW-101	10/20/23	10/18/23 09:45	aqueous		Adheres to Sample Acceptance Policy
268733.02	MW-335	10/20/23	10/18/23 10:45	aqueous		Adheres to Sample Acceptance Policy
268733.03	MW-102R	10/20/23	10/18/23 11:25	aqueous		Adheres to Sample Acceptance Policy
268733.04	MW-309	10/20/23	10/18/23 12:10	aqueous		Adheres to Sample Acceptance Policy
268733.05	Duplicate	10/20/23	10/18/23 12:10	aqueous		Adheres to Sample Acceptance Policy
268733.06	MW-103	10/20/23	10/18/23 12:50	aqueous		Adheres to Sample Acceptance Policy

All results contained in this report relate only to the above listed samples.

Unless otherwise noted:

- *Hold times, preservation, container types, and sample conditions adhered to EPA Protocol.*
- *Solid samples are reported on a dry weight basis, unless otherwise noted. pH/Corrosivity, Flashpoint, Ignitability, Paint Filter, Conductivity and Specific Gravity are always reported on an "as received" basis.*
- *Analysis of pH, Total Residual Chlorine, Dissolved Oxygen and Sulfite were performed at the laboratory outside of the recommended 15 minute hold time.*
- *Samples collected by Eastern Analytical, Inc. (EAI) were collected in accordance with approved EPA procedures.*

LABORATORY REPORT

EAI ID#: **268733**

Client: **LE Environmental LLC**

Client Designation: **Bristol Landfill / 14-013**

Sample ID:	MW-101	MW-335	MW-102R	MW-309					
Lab Sample ID:	268733.01	268733.02	268733.03	268733.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/18/23	10/18/23	10/18/23	10/18/23					
Date Received:	10/20/23	10/20/23	10/20/23	10/20/23	**Units**	**Analysis Date**	**Time**	**Method**	**Analyst**
Chloride	**52**	**340**	**32**	**19**	mg/L	10/24/23	14:39	4500CIE-11	ALM
COD	**23**	< 10	< 10	< 10	mg/L	10/25/23	13:55	H8000	JCS

Sample ID:	Duplicate	MW-103					
Lab Sample ID:	268733.05	268733.06					
Matrix:	aqueous	aqueous					
Date Sampled:	10/18/23	10/18/23					
Date Received:	10/20/23	10/20/23	**Units**	**Analysis Date**	**Time**	**Method**	**Analyst**
Chloride	**19**	**14**	mg/L	10/24/23	14:44	4500CIE-11	ALM
COD	< 10	< 10	mg/L	10/25/23	13:55	H8000	JCS

LABORATORY REPORT

EAI ID#: **268733**

Client: **LE Environmental LLC**

Client Designation: **Bristol Landfill / 14-013**

Sample ID:	MW-101	MW-335	MW-102R	MW-309					
Lab Sample ID:	268733.01	268733.02	268733.03	268733.04					
Matrix:	aqueous	aqueous	aqueous	aqueous					
Date Sampled:	10/18/23	10/18/23	10/18/23	10/18/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/20/23	10/20/23	10/20/23	10/20/23					
Iron	< 0.05	< 0.05	< 0.05	< 0.05	AqDis	mg/L	10/25/23	200.8	DS
Manganese	**0.17**	< 0.005	**0.46**	**0.26**	AqDis	mg/L	10/25/23	200.8	DS
Iron	**0.33**	**0.63**	< 0.05	< 0.05	AqTot	mg/L	10/25/23	200.8	DS
Lead	**0.0013**	< 0.001	< 0.001	< 0.001	AqTot	mg/L	10/25/23	200.8	DS
Manganese	**0.18**	**0.12**	**0.55**	**0.29**	AqTot	mg/L	10/25/23	200.8	DS
Sodium	**43**	**210**	**28**	**7.2**	AqTot	mg/L	10/25/23	200.8	DS
Zinc	**0.010**	< 0.005	**0.0050**	**0.0062**	AqTot	mg/L	10/25/23	200.8	DS

Sample ID:	Duplicate	MW-103						
Lab Sample ID:	268733.05	268733.06						
Matrix:	aqueous	aqueous						
Date Sampled:	10/18/23	10/18/23	**Analytical Matrix**	**Units**	**Date of Analysis**	**Method**	**Analyst**
Date Received:	10/20/23	10/20/23					
Iron	< 0.05	< 0.05	AqDis	mg/L	10/25/23	200.8	DS
Manganese	**0.26**	**0.051**	AqDis	mg/L	10/25/23	200.8	DS
Iron	< 0.05	**0.10**	AqTot	mg/L	10/25/23	200.8	DS
Lead	< 0.001	< 0.001	AqTot	mg/L	10/25/23	200.8	DS
Manganese	**0.28**	**0.091**	AqTot	mg/L	10/25/23	200.8	DS
Sodium	**6.9**	**10**	AqTot	mg/L	10/25/23	200.8	DS
Zinc	**0.0060**	< 0.005	AqTot	mg/L	10/25/23	200.8	DS

November 07, 2023

Enthalpy Analytical - El Dorado Hills
Work Order No. 2310236

Ms. Jennifer Laramie
Eastern Analytical, Inc.
51 Antrim Avenue
Concord, NH 03301

Dear Ms. Laramie,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on October 24, 2023 under your Project Name '268733 VT 4477'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at rajwinder.kaur@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

Kathy Zimo For

Rajwinder Kaur
Project Manager

Enthalpy Analytical -EDH certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Enthalpy Analytical -EDH .

Enthalpy Analytical - EDH Work Order No. 2310236
Case Narrative

Sample Condition on Receipt:

One aqueous sample was received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The sample was received in good condition and within the recommended temperature requirements.

Analytical Notes:

PFAS Isotope Dilution Method

The sample was extracted and analyzed for a selected list of PFAS using Enthalpy Analytical - EDH's PFAS Isotope Dilution Method. The results for PFHxS, PFOA and PFOS include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The sample was extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the Reporting Limits (RL). The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

TABLE OF CONTENTS

ENTHALPY ANALYTICAL

Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2310236-01	MW-101	18-Oct-23 09:45	24-Oct-23 11:38	Polypropylene, 250mL Polypropylene, 250mL

ANALYTICAL RESULTS

ENTHALPY ANALYTICAL

Sample ID: Method Blank — **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	B23J325-BLK1	Column:	BEH C18
Project:	268733 VT 4477						

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFHpA	375-85-9	ND	2.00		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
PFHxS	355-46-4	ND	2.00		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
PFOA	335-67-1	ND	2.00		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
PFNA	375-95-1	ND	2.00		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
PFOS	1763-23-1	ND	2.00		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFHpA	IS	98.9	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
13C3-PFHxS	IS	95.7	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
13C2-PFOA	IS	98.5	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
13C5-PFNA	IS	99.0	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1
13C8-PFOS	IS	91.3	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 14:53	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

ENTHALPY ANALYTICAL

Sample ID: OPR — **PFAS Isotope Dilution Method**

Client Data

Name: Eastern Analytical, Inc.
Project: 268733 VT 4477
Matrix: Aqueous

Laboratory Data

Lab Sample: B23J325-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFHpA	375-85-9	45.1	40.0	113	65 - 135		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
PFHxS	355-46-4	42.7	40.0	107	65 - 135		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
PFOA	335-67-1	48.5	40.0	121	65 - 135		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
PFNA	375-95-1	44.5	40.0	111	65 - 135		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
PFOS	1763-23-1	46.2	40.0	115	65 - 140		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
Labeled Standards		**Type**		**% Rec**	**Limits**	**Qualifiers**	**Batch**	**Extracted**	**Samp Size**	**Analyzed**	**Dilution**
13C4-PFHpA		IS		104	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
13C3-PFHxS		IS		101	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
13C2-PFOA		IS		98.9	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
13C5-PFNA		IS		100	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1
13C8-PFOS		IS		96.3	25 - 150		B23J325	01-Nov-23	0.250 L	02-Nov-23 15:04	1

ENTHALPY ANALYTICAL

Sample ID: MW-101 — **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	Eastern Analytical, Inc.	Matrix:	Aqueous	Lab Sample:	2310236-01	Column:	BEH C18
Project:	268733 VT 4477	Date Collected:	18-Oct-23 09:45	Date Received:	24-Oct-23 11:38		
Location:	268733						

Analyte	CAS Number	Conc. (ng/L)	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFHpA	375-85-9	7.75	1.99		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
PFHxS	355-46-4	6.44	1.99		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
PFOA	335-67-1	23.8	1.99		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
PFNA	375-95-1	ND	1.99		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
PFOS	1763-23-1	11.2	1.99		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFHpA	IS	108	25 - 150		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
13C3-PFHxS	IS	105	25 - 150		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
13C2-PFOA	IS	104	25 - 150		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
13C5-PFNA	IS	105	25 - 150		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1
13C8-PFOS	IS	106	25 - 150		B23J325	01-Nov-23	0.252 L	02-Nov-23 18:43	1

RL - Reporting limit

Results reported to RL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

CHAIN-OF-CUSTODY RECORD

Eastern Analytical, Inc.
professional laboratory and drilling services

EAI ID# **268733** Page 1

2310236 2.1°C

Sample ID	Date Sampled	Matrix	aParameters	Sample Notes
MW-101	10/18/2023 09:45	aqueous	Subcontract - Perfluorinated Compounds EPA Method 537 modified	

EAI ID# **268733** **Project State: VT**

Project ID: 4477

Company Vista Analytical Laboratory
Address 1104 Windfield Way
Address El Dorado Hills, CA 95762
Account #
Phone # (916) 673-1520

Results Needed: Preferred Date: Standard
RUSH Due Date: ________

QC Deliverables
☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

Notes about project:
Email login confirmation, pdf of results and invoice to customerservice@easternanalytical.com.
PFAS - 5 VT Regulated Compounds

PO #:61014 EAI ID# **268733**

Data Deliverable (circle)
Excel NH EMD EQuIS ME EGAD

Call prior to analyzing, if RUSH charges will be applied.

Samples Collected by:

Relinquished by	Date/Time	Received by
Nikki Hour	10/23/23 1600	UPS
UPS	10/24/23 11:38	[illegible]

Eastern Analytical, Inc. 51 Antrim Ave Concord, NH 03301 Phone: (603)228-0525 1-800-287-0525 customerservice@easternanalytical.com

As a subcontract lab to EAI, you will defend, indemnify and hold Eastern Analytical, Inc., its officers, employees, and agents harmless from and against any and all liability, loss, expense or claims for injury or damages arising out of the performance against this chain of custody but only in proportion to and to the extent such liability, loss, expense, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of you as a subcontract lab, your officers, agents or employees

Sample Log-In Checklist

ENTHALPY ANALYTICAL

Page # 1 of 1

Work Order #: 2310236 TAT 1 days

Samples Arrival:	Date/Time: 10/24/23 11:38		Initials: IH		Location: WR-2 Shelf/Rack: NR		
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Techni Ice	Dry Ice	None
Temp °C: 2.1 (uncorrected)	Probe used: Y / N				Thermometer ID: IR-4		
Temp °C: 2.1 (corrected)							

		YES	NO	NA
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?				✓
Airbill ✓	Trk # 1Z X46 599 01 9926 9687	✓		
Shipping Documentation Present?		✓		
Shipping Container	Enthalpy / Client / Retain / Return / Dispose			
Chain of Custody / Sample Documentation Present?		✓		
Chain of Custody / Sample Documentation Complete?		✓		
Holding Time Acceptable?		✓		

Logged In:	Date/Time: 10/25/23 07:05	Initials: IH	Location: R-13 / WR-4 Shelf/Rack: A-2 J-5
COC Anomaly/Sample Acceptance Form completed?			✓ ✓

Comments:

CoC/Label Reconciliation Report WO# 2310236

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2310236-01	A MW-101	☑	268733	18-Oct-23 09:45	☑	Polypropylene, 250mL	Aqueous	
2310236-01	B MW-101	☑	268733	18-Oct-23 09:45	☑	Polypropylene, 250mL	Aqueous	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		

Comments:

Preservation Documented: Na2S2O3 (Trizma T9) NH4CH3CO2 None Other

Verifed by/Date: LMA, 10/25/23

Eastern Analytical, Inc. CHAIN-OF-CUSTODY RECORD

268733

Sample IDs	Date/Time (Composites need start and stop dates/times)	Matrix	Parameters and Sample Notes	# of containers
MW-101	10/18/23 0945	aqueous (Grab or Comp)	AqTot/Cl/COD/ICPMets.Fe.Mn.Pb.Zn.Na/PFCsSubVAL AqDis/ICPMets.Fe.Mn	6
☑ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☑
MW-335	10/18/23 1015	aqueous (Grab or Comp)	AqTot/Cl/COD/ICPMets.Fe.Mn.Pb.Zn.Na AqDis/ICPMets.Fe.Mn	4
☑ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☑
MW-102R	10/18/23 1125	aqueous (Grab or Comp)	AqTot/Cl/COD/ICPMets.Fe.Mn.Pb.Zn.Na AqDis/ICPMets.Fe.Mn	4
☑ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☑
MW-309	10/18/23 1210	aqueous (Grab or Comp)	AqTot/Cl/COD/ICPMets.Fe.Mn.Pb.Zn.Na AqDis/ICPMets.Fe.Mn	4
☑ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☑

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 4477

Project Name Bristol Landfill / 14-013

State VT

Client (Pro Mgr) ~~Alan Liptak~~ Angela Emerson

Customer LE Environmental LLC

Address 21 North Main Street #1

City Waterbury VT 05676

Phone (802) 917-2001 Fax

Email: ~~alan@leenv.net~~ angela@leenv.net

Direct

Results Needed by: Preferred date Normal TAT

Notes:

PFAS - 5 VT Regulated Compounds

Bill to Town of Bristol

QC deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions

☒ HC ☐ NO FAX

☒ EDD PDF ☐ Partial FAX

☒ EDD email ☐ PDF Invoice

☒ PDF prelim, NO FAX ☐ EQUIS

☐ e-mail Login Confirmation

PO# Verbal

Quote#: 1013149

Temp 0.6°C

Ice Y ☒ N ☐

Samples Collected by: Angela Emerson

Relinquished by	Date/Time	Received by
Angela Emerson	10/20/23 1122	Jay Crum
Jay Crum	10-20-23 1405	N/A

Eastern Analytical, Inc. CHAIN-OF-CUSTODY RECORD

268733

Sample IDs	Date/Time (Composites need start and stop dates/times)	Matrix	Parameters and Sample Notes	# of containers
Duplicate	10/18/23 1210	aqueous / Grab or Comp	AqTot/Cl/COD/ICPMets.Fe.Mn.Pb.Zn.Na/~~PFCsSubVTL~~ No PFAs AqDis/ICPMets.Fe.Mn	4
☑ Sampler confirms ID and parameters are accurate			No PFAs *Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☑
MW-103	10/18/23 1250	aqueous / Grab or Comp	AqTot/Cl/COD/ICPMets.Fe.Mn.Pb.Zn.Na AqDis/ICPMets.Fe.Mn	4
☑ Sampler confirms ID and parameters are accurate			*Circle preservative/s:* HCL HNO_3 H_2SO_4 NaOH MEOH $Na_2S_2O_3$ ICE	Dissolved Sample Field Filtered ☑

Please ensure this auto COC is accurate, adheres to permit or sampling requirements for this sampling event, and modify as necessary.

EAI Project ID 4477

Project Name Bristol Landfill / 14-013

State VT

Client (Pro Mgr) ~~Alan Liptak~~ Angela Emerson

Customer LE Environmental LLC

Address 21 North Main Street #1

City Waterbury VT 05676

Phone (802) 917-2001 Fax

Email: ~~alan@leenv.net~~ angela@leenv.net

Direct

Results Needed by: Preferred date Normal TAT

Notes:

PFAS - 5 VT Regulated Compounds

Bill to Town of Bristol

QC deliverables

☒ A ☐ A+ ☐ B ☐ B+ ☐ C ☐ MA MCP

ReportingOptions

☒ HC ☐ NO FAX

☒ EDD PDF ☐ Partial FAX

☒ EDD email ☐ PDF Invoice

☒ PDF prelim, NO FAX ☐ EQUIS

☐ e-mail Login Confirmation

PO# Verbal

Quote#: 1013149

Temp 0.5°C

Ice Y☒ N☐

Samples Collected by: Angela Emerson

Relinquished by	Date/Time	Received by
Angela Emerson	10/20/23 1122	Jay Cross
Jay Cross	10-20-23/1405	NH

Relinquished by / Date/Time / Received by