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June 8, 2023

Mr. Peter Ouderkirk, P.E.
Environmental Engineer II
Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation
317 Washington Street
Watertown, New York 13601-3787

RE: 2022 Bi-Annual Groundwater Sampling Report
Corteva, Ferdula Landfill
Frankfort, New York

Dear Mr. Ouderkirk:

On behalf of Corteva Agriscience™ (Corteva), Parsons is pleased to provide you with the 2022 Annual Groundwater Sampling Report for the Corteva, Ferdula Landfill Site located in Frankfort, New York. This report is being submitted to fulfill the sampling requirement stipulated in the Administrative Consent Order (ACO) between Sporting Goods Properties, Inc. (a wholly-owned subsidiary of Corteva) and the New York State Department of Environmental Conservation (NYSDEC) dated December 1993. This letter report documents field activities associated with the groundwater sampling and presents groundwater analytical results. The groundwater monitoring results demonstrate that the cap and remediation system are functioning as designed and in conformance with the applicable documents.

FIELD ACTIVITIES

On October 18, 2022, Parsons completed groundwater level measurements at all the landfill wells and collected groundwater samples from landfill groundwater monitoring wells F-4, F-6, P-12, and P-17 (See Figure 1 for well locations). Well F-8 was expected to be sampled as part of the approved revised NYSDEC sampling program, but the well was dry during the previous groundwater sampling and has been replaced with well F-4. Well F-4 is located downgradient of the landfill cap. Parsons contacted the NYSDEC Project Manager (PM) in 2020 and explained the reasoning for the change. The NYSDEC PM approved the modification.

All groundwater monitoring wells listed above were purged and sampled according to the Sampling and Analysis Plan dated November 2019. As per the approved 2019 workplan, well P-12 was sampled because it represented groundwater quality upgradient of the landfill cap, well P-17 represented groundwater quality within the landfill cap, and wells F-4 (see explanation for F-4 sampling above) and F-6 are downgradient of the landfill cap.

In accordance with the Sampling and Analysis Plan dated November 2019, all groundwater monitoring wells were purged and sampled utilizing low-flow sampling techniques with a peristaltic or monsoon pump, PFAS-free dedicated tubing, and a low flow-through cell. Field parameters were measured during the sampling event including pH, temperature, conductivity, turbidity, redox potential, and dissolved oxygen. All results were recorded in a field form. All samples were analyzed for volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260C and 1,4-Dioxane by USEPA 8270 SIM.

DELIVERING A BETTER WORLD

Purged groundwater was collected and disposed of in the onsite leachate collection system, in accordance with the Waste Management Plan.

GROUNDWATER SAMPLES COLLECTED

Immediately following collection, samples were packed on ice in coolers that were secured and shipped with accompanying chain of custody forms to Alpha Analytical (Alpha) in Westborough, Massachusetts. Alpha is certified by the New York State Department of Health (NYSDOH) and Environmental Laboratory Approved Program (ELAP).

ANALYSIS OF FIELD DATA AND GROUNDWATER ANALYTICAL DATA

Groundwater Elevations and Trends

During field activities, depth-to-water measurements were taken at all groundwater monitoring wells at the Site. Groundwater elevations are provided in Table 1 and have been added to the historical trend plots included as Attachment A.

Note:

All onsite wells, except for the ones sampled, were abandoned in September 2020. Therefore, no future groundwater analytical data will be reported for them. Wells were abandoned at the request and approval of the NYSDEC.

The effectiveness of the engineered cap and upgradient diversion system (UDS) was previously demonstrated by the lower groundwater potentiometric surface in the wells within the landfill and downgradient of the UDS. However, following the 2020 bi-annual groundwater sampling, nineteen groundwater monitoring wells were deemed unnecessary and/or unusable at the Site and were decommissioned using NYSDEC CP-43 Groundwater Monitoring Well Decommissioning Policy. Figure A-1 provides a comparison of groundwater elevations between all wells remaining on site as of 2022. The trend plots show that groundwater elevations in the remaining wells downgradient of the UDS are generally constant, while remaining wells outside of the UDS tended to fluctuate. The groundwater elevation data shows that the UDS and the cap are functioning effectively and as designed to prevent infiltration of precipitation and flow through the landfill material.

Groundwater Monitoring and Trends

Tables 2 and 3 present the analytical results for groundwater samples collected on October 18, 2022. Attachment B includes trend plots (Figures B-1 through B-4) that illustrate the levels of chemical constituents-of-concern and their concentrations in the wells located upgradient of the landfill cap, within the landfill, and downgradient of the landfill cap. Groundwater analysis indicates that Vinyl Chloride (VC), Trichloroethene (TCE), cis-1,2 Dichloroethene (cis-1,2 DCE), trans-1,2 Dichloroethene (trans-1,2 DCE), and 1,4-Dioxane are below the laboratory detection limit upgradient of the landfill (P-12); while groundwater analysis indicates elevated concentrations of VC, TCE, cis-1,2 DCE, and 1,4-Dioxane within the landfill (P-17).

One of two downgradient wells sampled (F-6) exhibited concentrations above the laboratory detection limit for cis-1,2 DCE while the other and furthest downgradient well (F-4) sampled did not exhibit any parameters above

the method detection limit. These trends indicate that the remediation system operating at the Site is encouraging natural biodegradation to occur within the groundwater.

The concentrations of chemical constituents in the leachate from the Site also have been decreasing over time, but spiked in 2020 (VC, TCE, cis-1,2 DCE, and trans-1,2 DCE). A sample from the leachate system was collected during field activities in 2022 and analyzed. All chemical constituents decreased from 2020 to 2022. Even though increased parameter concentrations were observed compared to recent years, the analysis was acceptable by the Herkimer County Sewer District. Leachate results for 2022 are provided in Attachment E. The historical and current data for the leachate chemicals of concerns are charted in Attachment B (Figure B-5).

Groundwater analytical data were compared to the NYSDEC Class GA Water Standards as listed in the NYSDEC document "Division of Technical and Operational Guidance Series (1.1.1) (TOGS), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Dated June 1998." Upon comparison with NYSDEC criteria, it was noted that groundwater from two Site wells (F-6 and P-17) exceeded the Class GA Water Standards for VOCs, and 1,4-Dioxane was detected at P-17. 1,4-Dioxane does not have a NYSDEC Class GA Water Standards associated with it. Groundwater analytical results are summarized in Table 3.

A copy of the analytical laboratory data report with corresponding chain-of-custodies and ADQM Data Review Narrative for samples is provided in Attachment C and groundwater sampling forms for the October 2022 sampling event is provided in Attachment D. In accordance with the NYSDEC ACO and NYSDEC response letter dated February 28, 2011 (frequency change letter to bi-yearly), the next round of groundwater samples is scheduled to be collected during the third quarter of 2024.

Parsons looks forward to your favorable review of this report. If you have any questions requiring clarification, please call us at (513) 552-7009.

Sincerely,



Eric Mysona

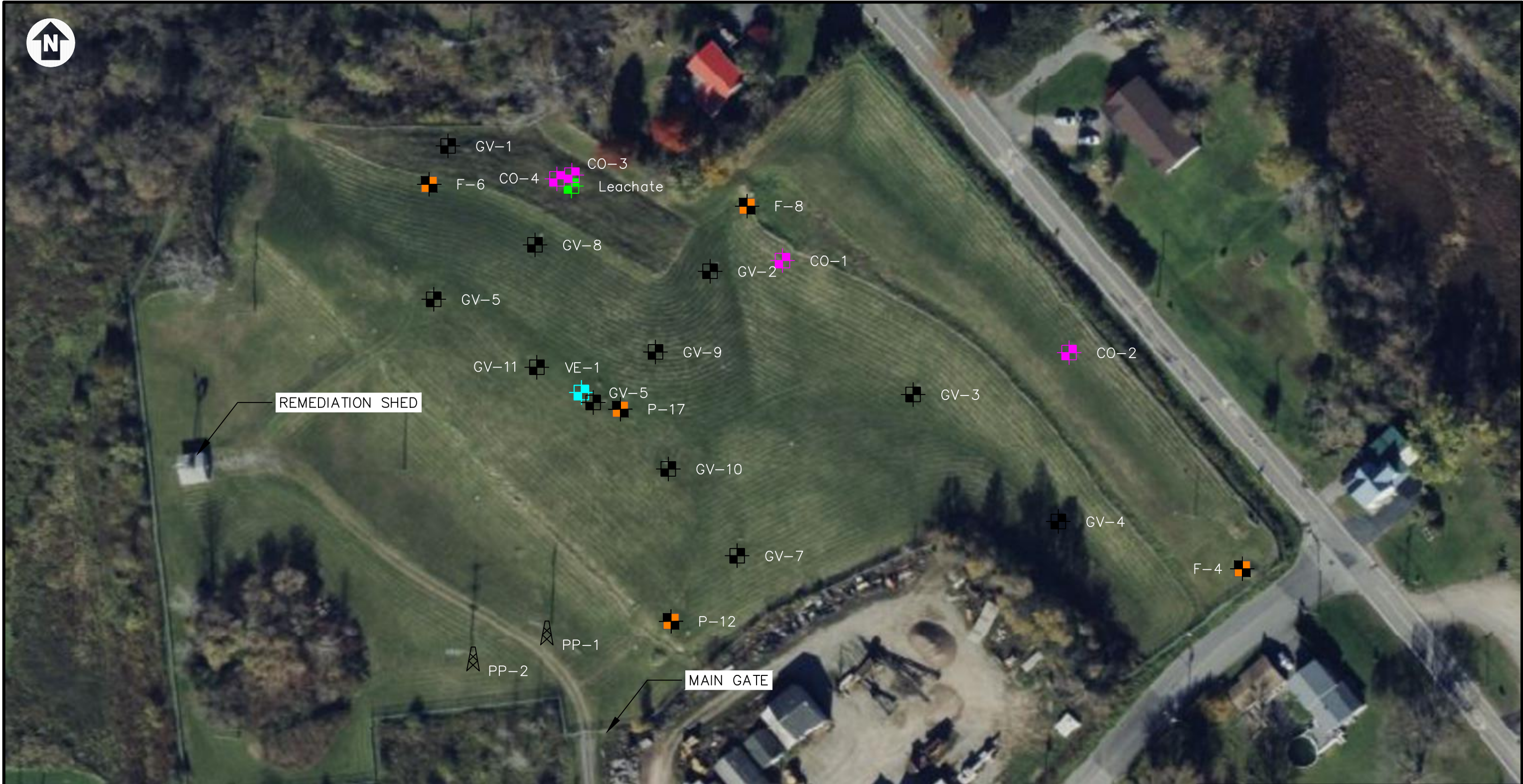
Eric Mysona
Project Manager

Attachment

cc: Mr. Thomas Stilley, Corteva
Project File: 452803



FIGURES



LEGEND:

-  LEACHATE CLEANOUT PIPE
-  LEACHATE MANHOLE
-  VAPOR EXTRACTION POINT
-  GROUNDWATER MONITORING WELL
-  GAS VENT
-  POWER POLE

FIGURE 1

CORVEA FERDULA LANDFILL
FRANKFORT, NEW YORK

SITE LAYOUT

TABLES

Table 1
DuPont-Ferdula Landfill
Historical Groundwater Elevations

Location	Reference Point Description	Reference Point Elevation (ft-MSL)	Oct-96 (ft-MSL)	Nov-96 (ft-MSL)	Dec-96 (ft-MSL)	Feb-97 (ft-MSL)	Apr-97 (ft-MSL)	Jun-97 (ft-MSL)	Aug-97 (ft-MSL)	Oct-97 (ft-MSL)	Dec-97 (ft-MSL)	Mar-98 (ft-MSL)	Dec-98 (ft-MSL)
P-8	top of PVC	452.07	442.04	432.30	436.44	436.12	435.75	435.55	435.37	435.22	435.01	434.68	434.08
P-9 *	top of PVC	447.92	435.32	434.99	435.03	436.04	437.30	436.35	434.86	434.61	435.74	438.31	434.41
P-10	top of PVC	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P-11 *	top of PVC	450.42	439.04	437.80	440.31	440.39	442.23	441.86	441.14	441.15	442.62	444.21	441.14
P-12	top of PVC	456.34	446.05	430.46	438.90	439.82	439.63	439.40	439.10	438.79	438.72	438.94	437.70
P-13 *	top of PVC	452.10	444.99	440.71	444.80	444.89	445.80	445.61	444.94	444.48	444.66	446.75	442.46
P-14 *	top of PVC	452.00	447.06	442.77	446.82	447.52	448.86	448.07	446.78	446.09	446.48	448.65	444.86
P-15 *	top of PVC	451.16	445.73	442.22	445.48	445.96	447.51	446.97	445.73	444.93	445.15	447.32	442.85
P-16	top of PVC	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P-17	top of PVC	455.39	435.24	429.46	436.96	436.54	436.30	436.15	436.03	435.70	435.42	435.22	434.54
P-18	top of PVC	451.36	#N/A	#N/A	#N/A	#N/A	435.76	435.57	435.42	435.28	435.08	434.75	432.39
F-16	top of PVC	452.79	441.60	431.40	436.29	435.94	435.53	435.35	435.23	435.05	434.79	434.39	433.71
F-17	top of PVC	449.35	437.00	437.61	437.60	437.40	437.37	437.30	437.21	437.01	436.87	436.95	436.46
F-4	top of PVC	425.55	407.59	430.04	407.75	408.29	408.39	408.32	407.57	406.61	407.11	407.84	403.41
F-6	top of PVC	433.35	426.16	436.96	422.48	421.92	422.29	422.14	422.00	421.92	421.93	418.33	421.60
F-7	top of PVC	444.47	440.77	440.20	437.03	436.07	435.98	435.90	435.84	435.65	435.33	435.25	434.50
F-8	top of PVC	427.59	414.29	434.62	414.31	414.27	414.77	414.57	413.57	413.75	414.95	418.14	415.21
F-14	top of PVC	430.84	422.32	431.44	414.39	414.64	415.82	414.63	414.74	414.52	414.74	410.72	414.56
F-15	top of PVC	408.02	403.03	443.00	403.15	402.65	402.95	402.72	402.04	402.40	402.76	403.50	402.70

Notes: Applicable
 #N/A - Not Measured
 Ft-MSL - Feet - mean sea level
 * - Indicates well above the upgradient diversion system.

Table 1
DuPont-Ferdula Landfill
Historical Groundwater Elevations

Location	Reference Point Description	Reference Point Elevation (ft-MSL)	May-99 (ft-MSL)	Nov-99 (ft-MSL)	May-00 (ft-MSL)	Nov-00 (ft-MSL)	May-01 (ft-MSL)	Aug-02 (ft-MSL)	Aug-03 (ft-MSL)	Sep-04 (ft-MSL)	Aug-05 (ft-MSL)	Aug-06 (ft-MSL)	Aug-07 (ft-MSL)
P-8	top of PVC	452.07	427.37	430.06	430.69	429.94	429.94	429.67	430.50	430.62	429.40	430.28	429.40
P-9 *	top of PVC	447.92	434.95	434.52	438.24	434.88	434.88	434.20	436.03	436.92	434.19	435.50	434.50
P-10	top of PVC	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P-11 *	top of PVC	450.42	441.02	443.21	443.51	442.68	442.68	440.94	442.00	443.34	441.21	442.34	441.67
P-12	top of PVC	456.34	437.80	437.44	438.43	437.79	437.79	437.68	438.55	438.39	437.52	437.54	437.63
P-13 *	top of PVC	452.10	442.99	445.20	446.25	444.98	444.98	442.66	445.17	445.60	442.48	445.08	442.24
P-14 *	top of PVC	452.00	445.75	444.94	447.84	436.55	446.77	445.35	446.84	446.57	444.82	446.34	445.49
P-15 *	top of PVC	451.16	444.00	442.41	451.16	#N/A	#N/A	443.49	445.60	445.28	443.16	445.00	443.91
P-16	top of PVC	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P-17	top of PVC	455.39	434.02	433.49	433.67	434.33	434.33	433.85	434.51	434.54	433.25	434.09	433.61
P-18	top of PVC	451.36	429.86	429.71	429.83	429.55	429.55	428.93	429.78	429.97	428.84	429.46	428.85
F-16	top of PVC	452.79	432.39	430.77	430.16	430.97	430.97	429.50	430.93	431.17	429.71	429.89	429.64
F-17	top of PVC	449.35	436.80	436.40	437.03	436.75	436.75	436.86	437.27	436.95	436.59	436.61	436.64
F-4	top of PVC	425.55	403.77	#N/A	425.55	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	405.01	407.29
F-6	top of PVC	433.35	421.64	421.54	421.67	421.54	421.54	421.21	421.78	421.96	421.29	421.79	421.45
F-7	top of PVC	444.47	434.45	433.94	434.54	434.82	434.82	434.74	435.32	434.92	434.43	#N/A	434.49
F-8	top of PVC	427.59	413.78	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	413.17		
F-14	top of PVC	430.84	415.37	415.41	414.54	414.94	414.94	414.48	414.55	414.85	414.38	414.04	414.55
F-15	top of PVC	408.02	402.65	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Notes: Applicable
 #N/A - Not Measured
 Ft-MSL - Feet - mean sea level
 * - Indicates well above the upgradient diversion system.

Table 1
DuPont-Ferdula Landfill
Historical Groundwater Elevations

Location	Reference Point Description	Reference Point Elevation (ft-MSL)	Oct-08 (ft-MSL)	Dec-09 (ft-MSL)	Oct-10 (ft-MSL)	Oct-12 (ft-MSL)	Aug-14 (ft-MSL)	Sep-16 (ft-MSL)	Oct-18 (ft-MSL)	Sep-20 (ft-MSL)	Oct-22 (ft-MSL)
P-8	top of PVC	452.07	429.77	430.38	430.52	429.42	#N/A	#N/A	430.47	429.83	#N/A
P-9 *	top of PVC	447.92	436.39	435.97	436.47	434.48	437.44	434.95	437.59	434.77	#N/A
P-10	top of PVC	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P-11 *	top of PVC	450.42	443.54	442.38	442.89	441.46	442.98	441.10	442.50	441.24	#N/A
P-12	top of PVC	456.34	437.68	437.73	438.14	437.21	438.49	437.16	437.99	437.69	437.86
P-13 *	top of PVC	452.10	445.65	445.13	445.40	442.39	445.57	442.30	444.97	442.40	#N/A
P-14 *	top of PVC	452.00	445.76	445.95	446.37	444.80	446.95		445.94	445.30	#N/A
P-15 *	top of PVC	451.16	443.85	444.43	444.96	443.18	445.86	443.02	444.58	443.74	#N/A
P-16	top of PVC	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
P-17	top of PVC	455.39	433.49	433.29	433.78	432.89	434.19	432.44	433.35	433.25	433.26
P-18	top of PVC	451.36	429.04	429.48	429.62	428.81	429.76	428.68	429.58	429.15	#N/A
F-16	top of PVC	452.79	429.51	429.79	429.89	429.37	429.89	429.04	429.66	429.50	#N/A
F-17	top of PVC	449.35	436.54	436.68	436.90	436.43	437.12	436.58	436.93	436.90	#N/A
F-4	top of PVC	425.55	407.93	408.33	408.41	#N/A	#N/A		407.80	405.55	408.20
F-6	top of PVC	433.35	421.39	421.51	420.55	420.35	421.03	420.50	421.49	420.62	420.83
F-7	top of PVC	444.47	434.02	434.01	434.53	433.54	434.96	433.42	434.20	434.03	#N/A
F-8	top of PVC	427.59	419.06	418.07	418.41		418.73		418.65		#N/A
F-14	top of PVC	430.84	414.32	414.41	414.74	414.56	414.93	414.54	414.95	414.76	#N/A
F-15	top of PVC	408.02	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

Notes: Applicable
 #N/A - Not Measured
 Ft-MSL - Feet - mean sea level
 * - Indicates well above the upgradient diversion system.

Table 2
Groundwater Sampling Results 2022
Corteva-Ferdula Landfill
Frankfort, New York

Parameter Name	Units	Number Samples	Number Detections	Average	Maximum
1,1,1-Trichloroethane	UG/L	5	0	1.26	NA
1,1,2,2-Tetrachloroethane	UG/L	5	0	0.304	NA
1,1,2-Trichloroethane	UG/L	5	0	0.9	NA
1,1-Dichloroethane	UG/L	5	0	1.26	NA
1,1-Dichloroethene	UG/L	5	1	0.516	1.9
1,2-Dichloroethane	UG/L	5	0	0.236	NA
1,2-Dichloropropane	UG/L	5	0	0.248	NA
1,4-Dioxane	UG/L	5	2	0.4763	1.59
2-Hexanone	UG/L	5	0	1.8	NA
Acetone	UG/L	5	0	2.66	NA
Benzene	UG/L	5	0	0.288	NA
Bromodichloromethane	UG/L	5	0	0.344	NA
Bromoform	UG/L	5	0	1.16	NA
Carbon Disulfide	UG/L	5	0	1.8	NA
Carbon Tetrachloride	UG/L	5	0	0.238	NA
Chlorobenzene	UG/L	5	0	1.26	NA
Chlorodibromomethane	UG/L	5	0	0.268	NA
Chloroform	UG/L	5	0	1.26	NA
cis-1,2 Dichloroethene	UG/L	5	2	127.02	620
cis-1,3-Dichloropropene	UG/L	5	0	0.256	NA
Ethyl Chloride	UG/L	5	0	1.26	NA
Ethylbenzene	UG/L	5	0	1.26	NA
Meta- And Para-Xylene	UG/L	5	0	1.26	NA
Methyl Bromide	UG/L	5	0	1.26	NA
Methyl Chloride	UG/L	5	0	1.26	NA
Methyl Ethyl Ketone	UG/L	5	0	3.46	NA
Methyl Isobutyl Ketone	UG/L	5	0	1.8	NA
Methylene Chloride	UG/L	5	0	1.26	NA
Ortho-Xylene	UG/L	5	0	1.26	NA
Styrene	UG/L	5	0	1.26	NA
Tetrachloroethene	UG/L	5	0	0.324	NA
Toluene	UG/L	5	0	1.26	NA
trans-1,2-Dichloroethene	UG/L	5	0	1.26	NA
trans-1,3-Dichloropropene	UG/L	5	0	0.292	NA
Trichloroethene	UG/L	5	1	18.144	90
Vinyl Chloride	UG/L	5	1	22.056	110
Xylenes	UG/L	5	0	1.26	NA
1,4-Dioxane	UG/L	8	1	0.374	1.74

Notes

ug/L = Micrograms per liter

NA = Non-applicable

Table 3
Groundwater Sample Results (October 2022)
Corteva-Ferdula Landfill
Frankfort, New York

Field Sample ID	GW2022-F-4	GW2022-F-6	GW2022-P-12-D	GW2022-P-12	GW2022-P-17
Location ID	F-4	F-6	P-12	P-12	P-17
Sample Date	10/18/2022	10/18/2022	10/18/2022	10/18/2022	10/18/2022
Sample Purpose	FS	FS	DUP	FS	FS
Sample Type	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
SDG	L2258130-03	L2258130-05	L2258130-02	L2258130-01	L2258130-04
Parameter Name					
1,1,1-Trichloroethane	<0.7	<0.7	<0.7	<0.7	<3.5
1,1,2,2-Tetrachloroethane	<0.17	<0.17	<0.17	<0.17	<0.84
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<2.5
1,1-Dichloroethane	<0.7	<0.7	<0.7	<0.7	<3.5
1,1-Dichloroethene	<0.17	<0.17	<0.17	<0.17	1.9 J
1,2-Dichloroethane	<0.13	<0.13	<0.13	<0.13	<0.66
1,2-Dichloropropane	<0.14	<0.14	<0.14	<0.14	<0.68
2-Hexanone	<1	<1	<1	<1	<5
Acetone	<1.5	<1.5	<1.5	<1.5	<7.3
Benzene	<0.16	<0.16	<0.16	<0.16	<0.8
Bromodichloromethane	<0.19	<0.19	<0.19	<0.19	<0.96
Bromoform	<0.65	<0.65	<0.65	<0.65	<3.2
Carbon Disulfide	<1	<1	<1	<1	<5
Carbon Tetrachloride	<0.13	<0.13	<0.13	<0.13	<0.67
Chlorobenzene	<0.7	<0.7	<0.7	<0.7	<3.5
Chlorodibromomethane	<0.15	<0.15	<0.15	<0.15	<0.74
Chloroform	<0.7	<0.7	<0.7	<0.7	<3.5
cis-1,2 Dichloroethene	<0.7	13	<0.7	<0.7	620
cis-1,3-Dichloropropene	<0.14	<0.14	<0.14	<0.14	<0.72
Ethyl Chloride	<0.7	<0.7	<0.7	<0.7	<3.5
Ethylbenzene	<0.7	<0.7	<0.7	<0.7	<3.5
Meta- And Para-Xylene	<0.7	<0.7	<0.7	<0.7	<3.5
Methyl Bromide	<0.7 UJ	<0.7 UJ	<0.7 UJ	<0.7 UJ	<3.5 UJ
Methyl Chloride	<0.7 UJ	<0.7 UJ	<0.7 UJ	<0.7 UJ	<3.5 UJ
Methyl Ethyl Ketone	<1.9	<1.9	<1.9	<1.9	<9.7
Methyl Isobutyl Ketone	<1	<1	<1	<1	<5
Methylene Chloride	<0.7	<0.7	<0.7	<0.7	<3.5
Ortho-Xylene	<0.7	<0.7	<0.7	<0.7	<3.5
Styrene	<0.7	<0.7	<0.7	<0.7	<3.5
Tetrachloroethene	<0.18	<0.18	<0.18	<0.18	<0.9
Toluene	<0.7	<0.7	<0.7	<0.7	<3.5
trans-1,2-Dichloroethene	<0.7	<0.7	<0.7	<0.7	<3.5
trans-1,3-Dichloropropene	<0.16	<0.16	<0.16	<0.16	<0.82
Trichloroethene	<0.18	<0.18	<0.18	<0.18	90
Vinyl Chloride	<0.07	<0.07	<0.07	<0.07	110
Xylenes	<0.7	<0.7	<0.7	<0.7	<3.5
1,4-Dioxane	<0.0326	<0.0326	<0.0326	<0.0326	1.74

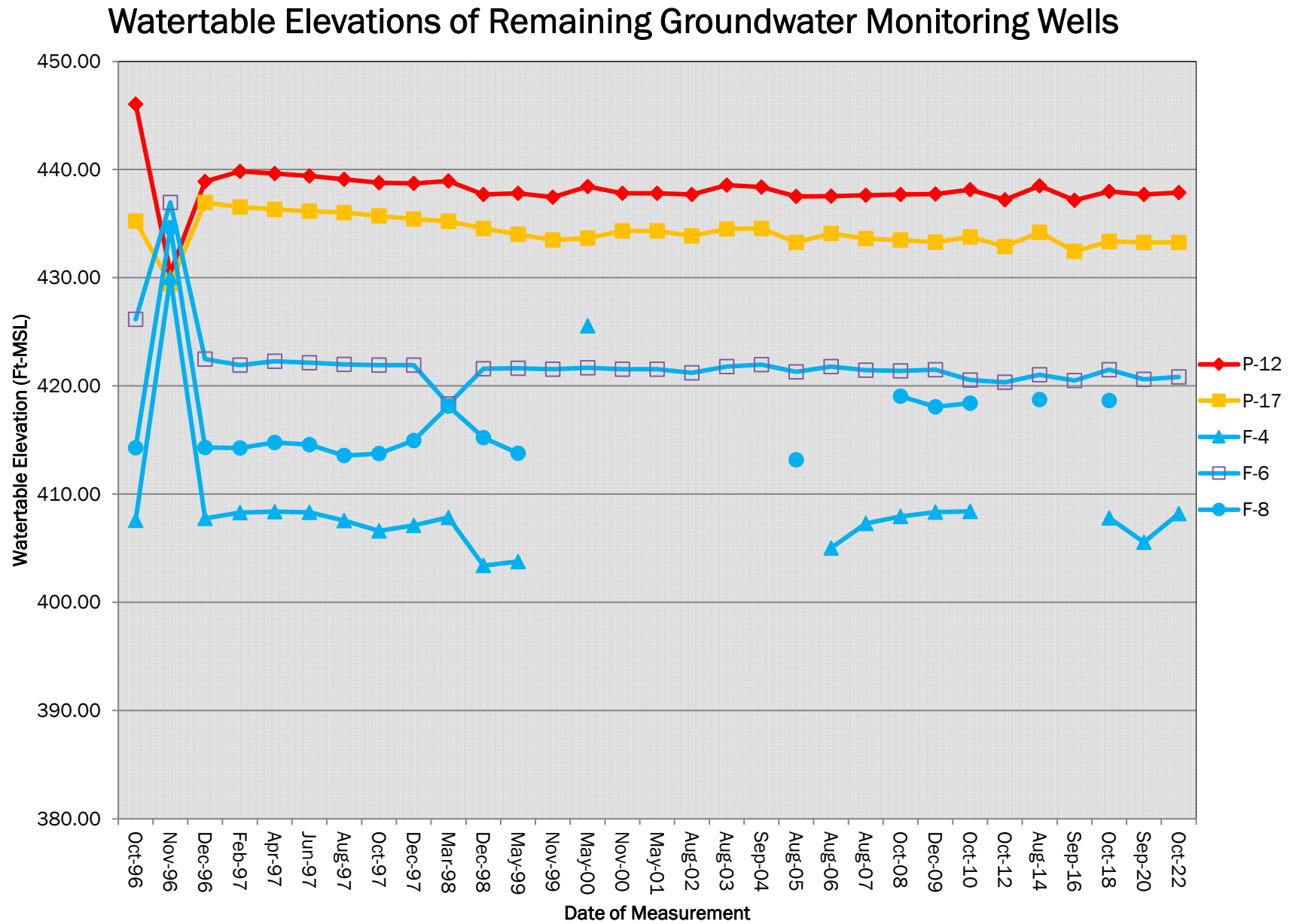
Notes:

Ug/L	Micrograms per liter
Bold Concentration	Parameter detected substantially above the method detection limit reported in the laboratory or field blanks.
UJ	The analyte was detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
<	Parameter concentration detected below the laboratory's method detection limit.
	Highlighted parameter observed at a concentration that exceeds NYSDEC TOGS 1.1.1 groundwater criteria.
N	No
NS	Parameter not sampled or no criteria specified.
J	The analyte was positively identified, but the quantitation is an estimation.
FS	Field sample
Dup	Duplicate sample
(1)	Groundwater criteria obtained from the NYSDEC document "Division of Technical and Operational Guidance Services (1.1.1), Ambient Water Quality Standards and Groundwater Effluent Limitations. June 1996, Errata sheet for June 1998 Edition." Concentration of parameter(s) exceeds regulatory screening criteria. Class GA criteria used.

ATTACHMENT A

TREND PLOTS GROUNDWATER ELEVATIONS

Figure A-1



ATTACHMENT B

TREND PLOTS CHEMICAL CONSTITUENTS OF CONCERN IN MONITORING WELLS

Figure B-1
Indicator Compounds of Concern in Well F-4

Analyte	Sep-20	Oct-22
TCE	ND	ND
Cis-1,2 DCE	ND	ND
Trans-1,2 DCE	ND	ND
1,4-Dioxane	ND	ND
Vinyl Chloride	ND	ND

All results in ppb.

ND: Below detection limit. Concentration value below 0 ppb.

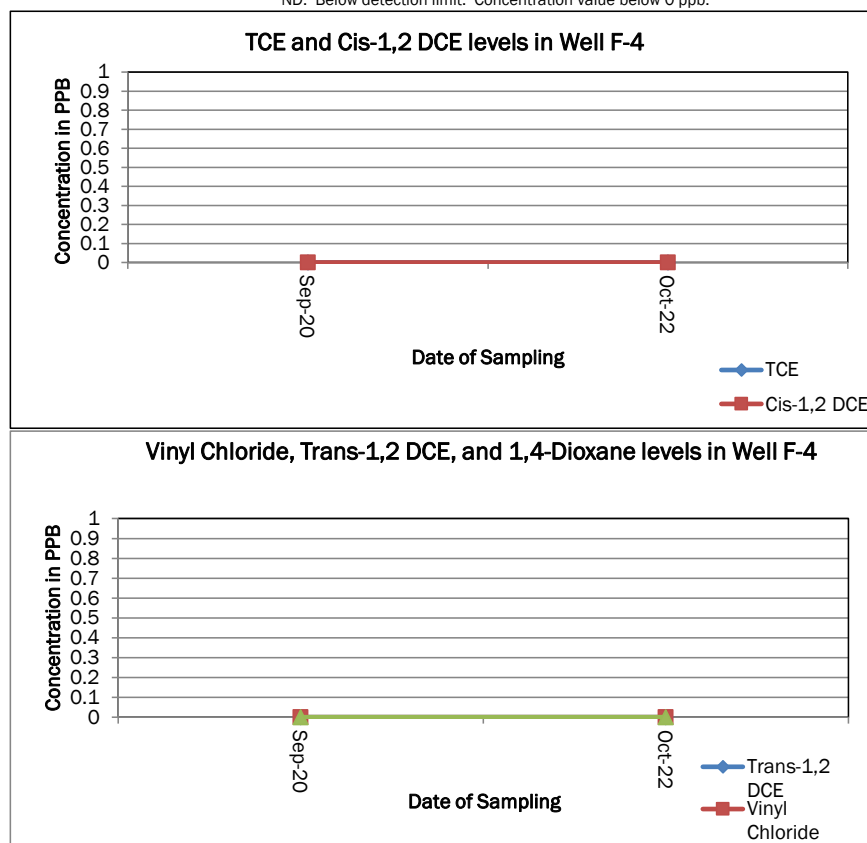


Figure B-2
Indicator Compounds of Concern in Well F-6

Analyte	Jun-96	Mar-97	Jun-97	Sep-97	Dec-97	Mar-98	Dec-98	May-99	Nov-99	May-00	Nov-00	May-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Aug-07	Oct-08	Dec-09	Oct-10	Oct-12	Aug-14	Sep-16	Oct-18	Sep-20	Oct-22
Vinyl Chloride	320	40	62	47	27	25	16	17	8	9.6	8.8	7	6	4	4	5	4	3	3	1	3	3	2	2	1	1.7	ND
Cis-1,2 DCE	910	170	260	190	150	190	93	140	66	94	67	75	82	63	ND	39	32	35	33	30	34	28	23 J	13	13	13	13
TCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.696	ND
Trans-1,2 DCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

All results in ppb.

ND: Below detection limit. Concentration value below 0 ppb.

J -The analyte was positively identified, but the quantitation is an estimation.

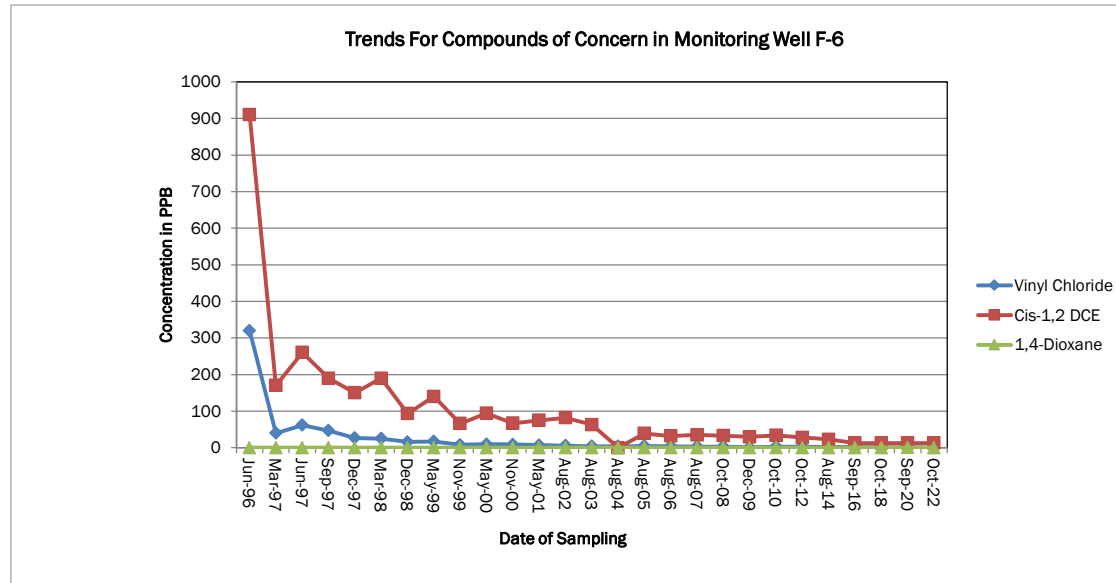


Figure B-3
Indicator Compounds of Concern in Well P-17

Analyte	Sep-20	Oct-22
Vinyl Chloride	54	110
TCE	88	90
Cis-1,2 DCE	500	620
1,4-Dioxane	1.59	1.74
Trans-1,2 DCE	ND	ND

All results in ppb.

ND: Below detection limit. Concentration value below 0 ppb.

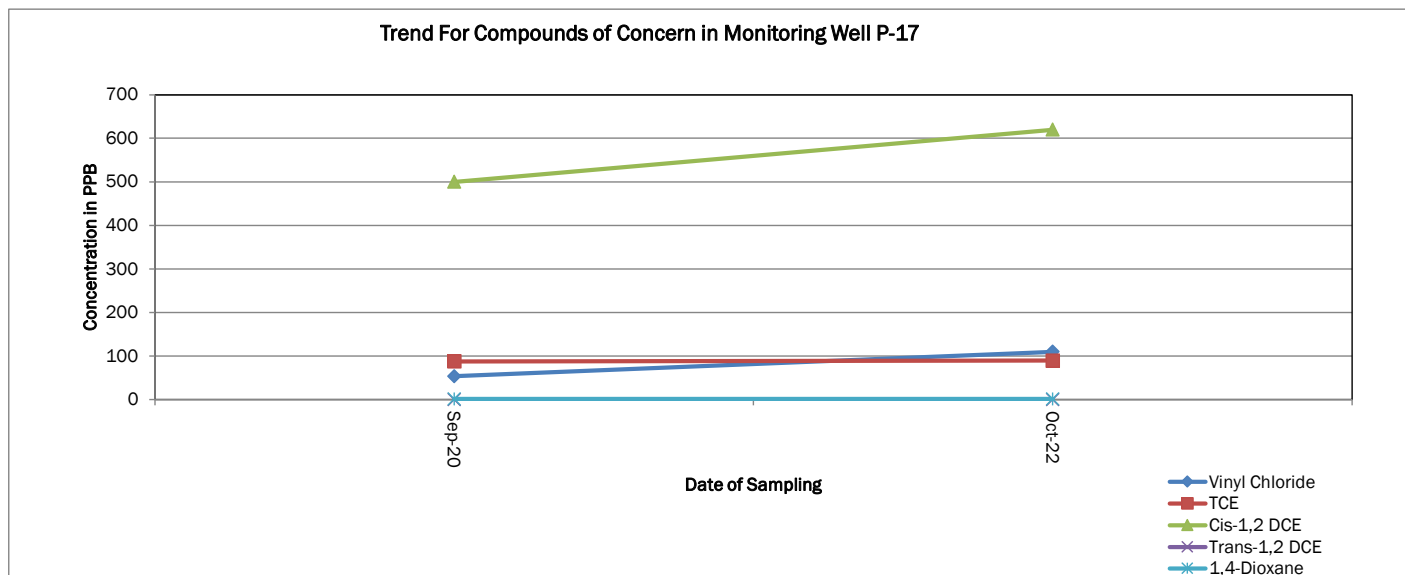


Figure B-4
Indicator Compounds of Concern in Well P-12

Analyte	Sep-20	Oct-22
Vinyl Chloride	ND	ND
TCE	ND	ND
Cis-1,2 DCE	ND	ND
1,4-Dioxane	ND	ND
Trans-1,2 DCE	ND	ND

All results in ppb.

ND: Below detection limit. Concentration value below 0 ppb.

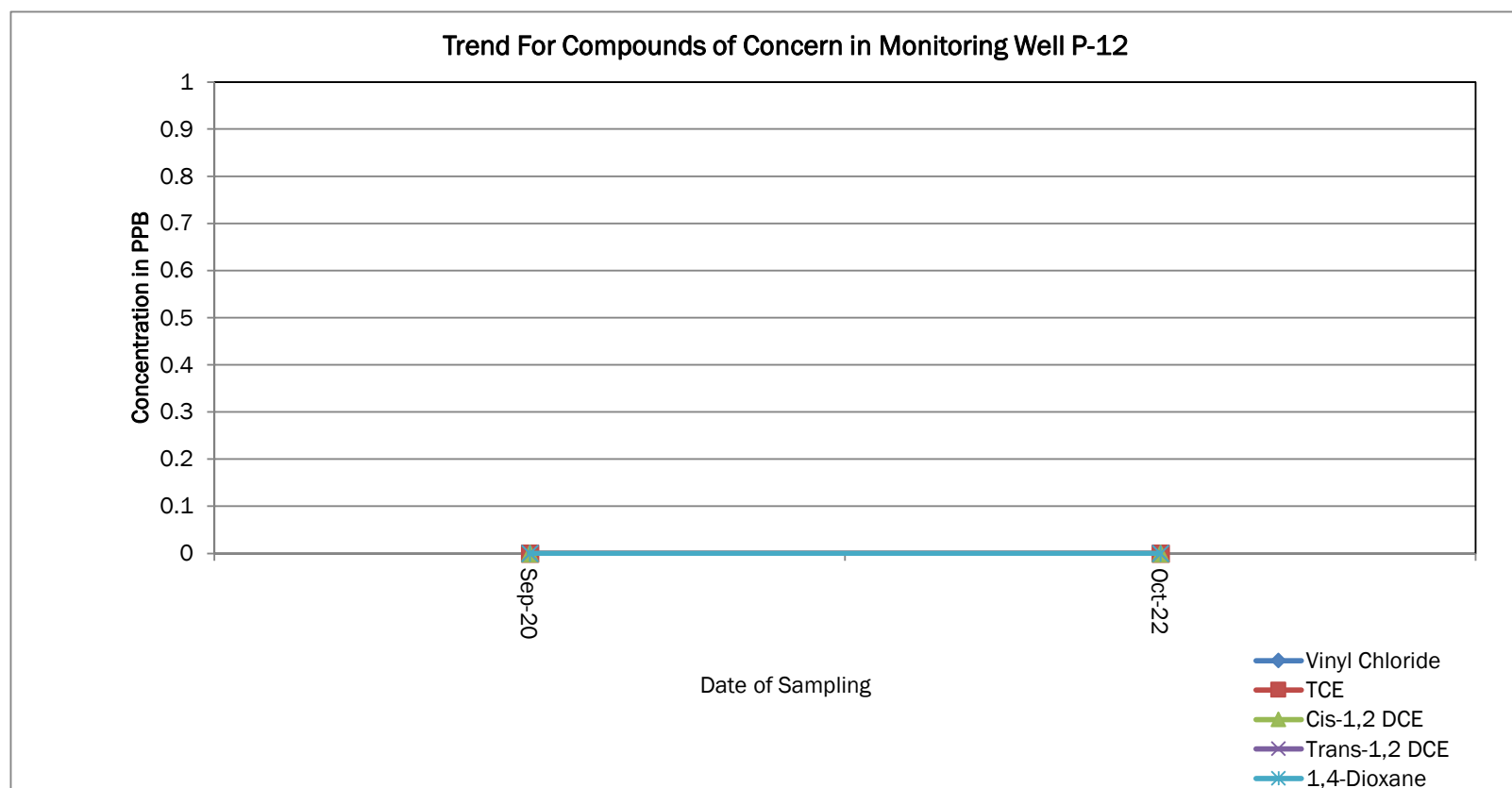


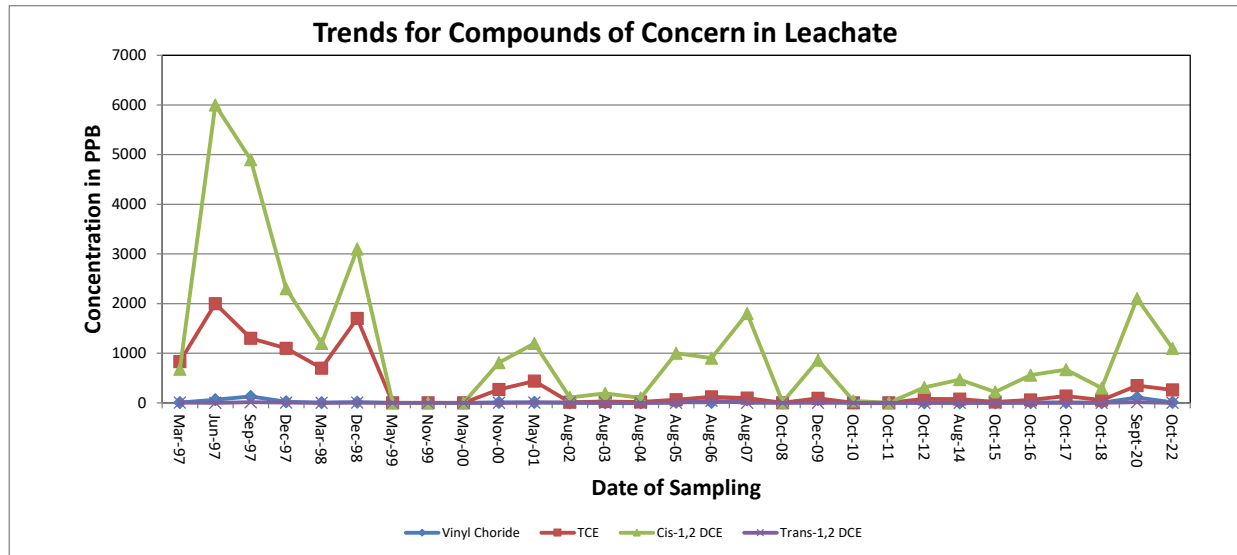
Figure B-5
Indicator Compounds of Concern in Leachate

Analyte	Mar-97	Jun-97	Sep-97	Dec-97	Mar-98	Dec-98	May-99	Nov-99	May-00	Nov-00	May-01	Aug-02	Aug-03	Aug-04	Aug-05	Aug-06	Aug-07	Oct-08	Dec-09	Oct-10	Oct-11	Oct-12	Aug-14	Oct-15	Oct-16	Oct-17	Oct-18	Sept-20	Oct-22
Vinyl Chloride	7	63	130	22	5	13	NF	ND	ND	8.7	11	ND	ND	ND	16	9	65	ND	66	ND	0.005	3	2	1	7	9	1	110	11
TCE	830	2000	1300	1100	700	1700	NF	ND	ND	270	440	16	25	19	65	120	95	3	94	ND	0.056	81	76	17	60	140	54	350	260
Cis-1,2 DCE	680	6000	4900	2300	1200	3100	NF	ND	ND	810	1200	110	190	100	1000	900	1800	14	860	41	0.28	310	470	220	560	670	300	2100	1100
Trans-1,2 DCE	7	0	13	4	ND	6	NF	ND	ND	ND	7	11	ND	ND	2	45	3	ND	3	ND	ND	1	0.8	ND	1	1	0.4	14	ND

All Results in ppb.

ND: Below detection limit. Concentration value below 0 ppb.

J -The analyte was positively identified, but the quantitation is an estimation.



ATTACHMENT C

ANALYTICAL LABORATORY REPORT WITH CHAIN-OF-CUSTODIES AND ADQM WHITEBOOK DATA REVIEW NARRATIVE

ADQM Data Review

Site: Corteva Ferdula Landfill, Frankfort, NY

Project: GW Sampling Annual 2022

Project Reviewer: Sharon Nordstrom

Data of Review: November 9, 2022

Sample Summary

Field Sample ID	Lab Sample ID	Sample Matrix	Filtered	Sample Date	Sample Time	Sample Purpose
GW2022-P-12	L2288130-01	Groundwater	No	10/18/22	13:05	FS
GW2022-P-12-D	L2288130-02	Groundwater	No	10/18/22	13:15	DUP
GW2022-F-4	L2288130-03	Groundwater	No	10/18/22	13:25	FS
GW2022-P-17	L2218130-04	Groundwater	No	10/18/22	16:05	FS
GW-2022-F-6	L2218130-05	Groundwater	No	10/18/22	16:20	FS
GW-2022-TRIP_BLANK	L2218130-06	Blank Water	No	10/18/22	12:00	TB

FS=Field Sample DUP=Field Duplicate TB=Trip Blank

Analytical Protocols

Lab Name	Lab Method	Parameter Name	Sampling Program
Alpha Analytical	SW-846 8260D	Target Volatile Organics	GW Sampling Annual 2022
Alpha Analytical	SW-846 8270E- SIM	1,4-Dioxane	GW Sampling Annual 2022

ADQM Data Review Checklist

Item	Description	Yes	No*	DVM Narrative Report	Laboratory Report	Exception Report (ER) #
A	Did samples meet laboratory acceptability requirements upon receipt (i.e., intact, within temperature, properly preserved, and no headspace where applicable)?	X				
B	Were samples received by the laboratory in agreement with the associated chain of custody?	X				1
C	Was the chain of custody properly completed by the laboratory and/or field team?	X				
D	Were samples prepped/analyzed by the laboratory within method holding times?	X				
E	Were data review criteria met for method blanks, LCSs/LCSDs, MSs/MSDs, PDSS, SDs, replicates, surrogates, sample results within calibration range, total/dissolved samples, field duplicates, field/equipment/trip blanks?		X	X		
F	Were all data usable and not R qualified?	X				
ER#	Description					
1	A sampling time of 12:00 was assigned to the trip blank sample for the purpose of loading the associated data into the EIM database.					
Other QA/QC Items to Note:						

* See DVM Narrative Report, Laboratory Report, and/or ER # for further details as indicated.

The electronic data submitted for this project were reviewed via the Data Verification Module (DVM) process. The data are acceptable for use without qualification, except as noted on the attached DVM Narrative Report.

Data Verification Module (DVM)

The DVM is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software, Locus EIM™ database Data Verification Module (DVM), and manual reviewer evaluations. The data are evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike (MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- Difference/RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference/percent difference between total and dissolved sample pairs

There are two qualifier fields in EIM:

Laboratory Qualifier is the qualifier assigned by the laboratory and may not reflect the usability of the data. This qualifier may have many different meanings and can vary between labs and over time within the same lab. Please refer to the laboratory report for a description of the laboratory qualifiers. As they are laboratory descriptors they are not to be used when evaluating the data.

Validation Qualifier is the 3rd party formal validation qualifier if this was performed. Otherwise this field contains the qualifier resulting from the ADQM DVM review process. This qualifier assesses the usability of the data and may not equal the laboratory qualifier. The DVM applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

The **Validation Status Code** field is set to “DVM” if the ADQM DVM process has been performed. If the DVM has not been run, the field will be blank.

If the DVM has been run (**Validation Status Code** equals “DVM”), use the **Validation Qualifier**.

If the data have been validated by a third party, the field “**Validated By**” will be set to the validator (e.g., ESI for Environmental Standards, Inc.).

DVM Narrative Report

Site: Ferdula

Sampling Program: GW SAMPLING ANNUAL 2022

Validation Options: LABSTATS

Validation Reason Code: Associated LCS and/or LCSD analysis had relative percent recovery (RPR) values less than the lower control limit but above 10%. The actual detection limits may be higher than reported.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
GW2022-F-4	10/18/2022	L2258130-03	Methyl Bromide	0.70	UG/L	MDL	0.70	2.5	UJ	8260D		
GW2022-F-6	10/18/2022	L2258130-05	Methyl Bromide	0.70	UG/L	MDL	0.70	2.5	UJ	8260D		
GW2022-P-12	10/18/2022	L2258130-01	Methyl Bromide	0.70	UG/L	MDL	0.70	2.5	UJ	8260D		
GW2022-P-12-D	10/18/2022	L2258130-02	Methyl Bromide	0.70	UG/L	MDL	0.70	2.5	UJ	8260D		
GW2022-P-17	10/18/2022	L2258130-04	Methyl Bromide	3.5	UG/L	MDL	3.5	12	UJ	8260D		
GW2022-TRIP_BLANK	10/18/2022	L2258130-06	Methyl Bromide	0.70	UG/L	MDL	0.70	2.5	UJ	8260D		

Validation Reason Code: The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
GW2022-P-17	10/18/2022	L2258130-04	1,1-Dichloroethene	1.9	UG/L	MDL	0.84	2.5	J	8260D		



ANALYTICAL REPORT

Lab Number:	L2258130
Client:	DowDuPont, Inc. 4051 Ogletown Road Sabre Building; Suite 300 Newark, DE 19713
ATTN:	Sharon Nordstrom
Phone:	(302) 781-5900
Project Name:	9267-7720100C-WH06-507052
Project Number:	GW SAMPLING ANN 2022
Report Date:	11/08/22

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 9267-7720100C-WH06-507052
Project Number: GW SAMPLING ANN 2022

Lab Number: L2258130
Report Date: 11/08/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2258130-01	GW2022-P-12	WATER	FRANKFORT, NY	10/18/22 13:05	10/18/22
L2258130-02	GW2022-P-12-D	WATER	FRANKFORT, NY	10/18/22 13:15	10/18/22
L2258130-03	GW2022-F-4	WATER	FRANKFORT, NY	10/18/22 13:25	10/18/22
L2258130-04	GW2022-P-17	WATER	FRANKFORT, NY	10/18/22 16:05	10/18/22
L2258130-05	GW2022-F-6	WATER	FRANKFORT, NY	10/18/22 16:20	10/18/22
L2258130-06	TRIP BLANK	WATER	FRANKFORT, NY	10/18/22 00:00	10/18/22

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 11/08/22

ORGANICS

VOLATILES

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-01
 Client ID: GW2022-P-12
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 13:05
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260D

Analytical Date: 10/28/22 10:24

Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS****Lab ID:** L2258130-01**Date Collected:** 10/18/22 13:05**Client ID:** GW2022-P-12**Date Received:** 10/18/22**Sample Location:** FRANKFORT, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-02
 Client ID: GW2022-P-12-D
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 13:15
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260D

Analytical Date: 10/28/22 10:47

Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1



Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS****Lab ID:** L2258130-02**Date Collected:** 10/18/22 13:15**Client ID:** GW2022-P-12-D**Date Received:** 10/18/22**Sample Location:** FRANKFORT, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-03
 Client ID: GW2022-F-4
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 13:25
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 10/28/22 11:11
 Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS****Lab ID:** L2258130-03**Date Collected:** 10/18/22 13:25**Client ID:** GW2022-F-4**Date Received:** 10/18/22**Sample Location:** FRANKFORT, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	100		70-130

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-04 D

Date Collected: 10/18/22 16:05

Client ID: GW2022-P-17

Date Received: 10/18/22

Sample Location: FRANKFORT, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260D

Analytical Date: 10/28/22 11:34

Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	12	3.5	5
1,1-Dichloroethane	ND		ug/l	12	3.5	5
Chloroform	ND		ug/l	12	3.5	5
Carbon tetrachloride	ND		ug/l	2.5	0.67	5
1,2-Dichloropropane	ND		ug/l	5.0	0.68	5
Dibromochloromethane	ND		ug/l	2.5	0.74	5
1,1,2-Trichloroethane	ND		ug/l	7.5	2.5	5
Tetrachloroethene	ND		ug/l	2.5	0.90	5
Chlorobenzene	ND		ug/l	12	3.5	5
1,2-Dichloroethane	ND		ug/l	2.5	0.66	5
1,1,1-Trichloroethane	ND		ug/l	12	3.5	5
Bromodichloromethane	ND		ug/l	2.5	0.96	5
trans-1,3-Dichloropropene	ND		ug/l	2.5	0.82	5
cis-1,3-Dichloropropene	ND		ug/l	2.5	0.72	5
Bromoform	ND		ug/l	10	3.2	5
1,1,2,2-Tetrachloroethane	ND		ug/l	2.5	0.84	5
Benzene	ND		ug/l	2.5	0.80	5
Toluene	ND		ug/l	12	3.5	5
Ethylbenzene	ND		ug/l	12	3.5	5
Chloromethane	ND		ug/l	12	3.5	5
Bromomethane	ND		ug/l	12	3.5	5
Vinyl chloride	110		ug/l	5.0	0.36	5
Chloroethane	ND		ug/l	12	3.5	5
1,1-Dichloroethene	1.9	J	ug/l	2.5	0.84	5
trans-1,2-Dichloroethene	ND		ug/l	12	3.5	5
Trichloroethene	90		ug/l	2.5	0.88	5
p/m-Xylene	ND		ug/l	12	3.5	5
o-Xylene	ND		ug/l	12	3.5	5

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-04 D

Date Collected: 10/18/22 16:05

Client ID: GW2022-P-17

Date Received: 10/18/22

Sample Location: FRANKFORT, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	12	3.5	5
cis-1,2-Dichloroethene	620		ug/l	12	3.5	5
Styrene	ND		ug/l	12	3.5	5
Acetone	ND		ug/l	25	7.3	5
Carbon disulfide	ND		ug/l	25	5.0	5
2-Butanone	ND		ug/l	25	9.7	5
4-Methyl-2-pentanone	ND		ug/l	25	5.0	5
2-Hexanone	ND		ug/l	25	5.0	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-05
 Client ID: GW2022-F-6
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 16:20
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 10/28/22 11:58
 Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	3.0		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1



Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS****Lab ID:** L2258130-05**Date Collected:** 10/18/22 16:20**Client ID:** GW2022-F-6**Date Received:** 10/18/22**Sample Location:** FRANKFORT, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	13		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-06
 Client ID: TRIP BLANK
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 00:00
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260D
 Analytical Date: 10/28/22 12:21
 Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1



Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS****Lab ID:** L2258130-06**Date Collected:** 10/18/22 00:00**Client ID:** TRIP BLANK**Date Received:** 10/18/22**Sample Location:** FRANKFORT, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	95		70-130

Project Name: 9267-7720100C-WH06-507052

Lab Number: L2258130

Project Number: GW SAMPLING ANN 2022

Report Date: 11/08/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 10/28/22 10:00
 Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1706235-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260D
 Analytical Date: 10/28/22 10:00
 Analyst: PID

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1706235-5					
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9267-7720100C-WH06-507052

Lab Number: L2258130

Project Number: GW SAMPLING ANN 2022

Report Date: 11/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1706235-3 WG1706235-4								
Methylene chloride	96		93		70-130	3		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	98		100		70-130	2		20
Carbon tetrachloride	94		98		63-132	4		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	90		93		63-130	3		20
1,1,2-Trichloroethane	96		100		70-130	4		20
Tetrachloroethene	99		100		70-130	1		20
Chlorobenzene	100		100		75-130	0		20
1,2-Dichloroethane	94		96		70-130	2		20
1,1,1-Trichloroethane	96		97		67-130	1		20
Bromodichloromethane	90		92		67-130	2		20
trans-1,3-Dichloropropene	91		92		70-130	1		20
cis-1,3-Dichloropropene	90		92		70-130	2		20
Bromoform	84		87		54-136	4		20
1,1,2,2-Tetrachloroethane	92		97		67-130	5		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		98		70-130	1		20
Chloromethane	80		80		64-130	0		20
Bromomethane	31	Q	35	Q	39-139	12		20
Vinyl chloride	100		100		55-140	0		20
Chloroethane	100		100		55-138	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9267-7720100C-WH06-507052

Project Number: GW SAMPLING ANN 2022

Lab Number: L2258130

Report Date: 11/08/22

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1706235-3 WG1706235-4								
1,1-Dichloroethene	98		98		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	91		94		70-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	99		99		70-130	0		20
Styrene	95		95		70-130	0		20
Acetone	82		77		58-148	6		20
Carbon disulfide	71		70		51-130	1		20
2-Butanone	82		84		63-138	2		20
4-Methyl-2-pentanone	83		90		59-130	8		20
2-Hexanone	84		92		57-130	9		20

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		95		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	98		99		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 9267-7720100C-WH06-507052

Project Number: GW SAMPLING ANN 2022

Lab Number: L2258130

Report Date: 11/08/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1706235-6 WG1706235-7 QC Sample: L2258130-01 Client ID: GW2022-P-12												
Methylene chloride	ND	10	9.9	99		9.8	98		70-130	1		20
1,1-Dichloroethane	ND	10	11	110		11	110		70-130	0		20
Chloroform	ND	10	10	100		10	100		70-130	0		20
Carbon tetrachloride	ND	10	10	100		10	100		63-132	0		20
1,2-Dichloropropane	ND	10	10	100		10	100		70-130	0		20
Dibromochloromethane	ND	10	9.2	92		9.3	93		63-130	1		20
1,1,2-Trichloroethane	ND	10	10	100		10	100		70-130	0		20
Tetrachloroethene	ND	10	10	100		10	100		70-130	0		20
Chlorobenzene	ND	10	10	100		10	100		75-130	0		20
1,2-Dichloroethane	ND	10	9.7	97		9.9	99		70-130	2		20
1,1,1-Trichloroethane	ND	10	10	100		10	100		67-130	0		20
Bromodichloromethane	ND	10	9.7	97		9.4	94		67-130	3		20
trans-1,3-Dichloropropene	ND	10	9.0	90		9.1	91		70-130	1		20
cis-1,3-Dichloropropene	ND	10	9.2	92		9.2	92		70-130	0		20
Bromoform	ND	10	8.2	82		8.6	86		54-136	5		20
1,1,2,2-Tetrachloroethane	ND	10	9.4	94		9.8	98		67-130	4		20
Benzene	ND	10	10	100		10	100		70-130	0		20
Toluene	ND	10	10	100		10	100		70-130	0		20
Ethylbenzene	ND	10	10	100		10	100		70-130	0		20
Chloromethane	ND	10	8.8	88		9.1	91		64-130	3		20
Bromomethane	ND	10	2.6	26	Q	3.4	34	Q	39-139	27	Q	20
Vinyl chloride	ND	10	11	110		11	110		55-140	0		20
Chloroethane	ND	10	11	110		11	110		55-138	0		20

Matrix Spike Analysis**Batch Quality Control****Project Name:** 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1706235-6 WG1706235-7 QC Sample: L2258130-01 Client ID: GW2022-P-12												
1,1-Dichloroethene	ND	10	10	100		10	100		61-145	0		20
trans-1,2-Dichloroethene	ND	10	10	100		11	110		70-130	10		20
Trichloroethene	ND	10	9.7	97		9.6	96		70-130	1		20
p/m-Xylene	ND	20	20	100		20	100		70-130	0		20
o-Xylene	ND	20	20	100		20	100		70-130	0		20
cis-1,2-Dichloroethene	ND	10	10	100		10	100		70-130	0		20
Styrene	ND	20	19	95		19	95		70-130	0		20
Acetone	ND	10	7.2	72		8.5	85		58-148	17		20
Carbon disulfide	ND	10	7.3	73		7.1	71		51-130	3		20
2-Butanone	ND	10	9.0	90		8.8	88		63-138	2		20
4-Methyl-2-pentanone	ND	10	8.6	86		8.7	87		59-130	1		20
2-Hexanone	ND	10	8.5	85		8.5	85		57-130	0		20

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		94		70-130
4-Bromofluorobenzene	98		100		70-130
Dibromofluoromethane	100		100		70-130
Toluene-d8	101		101		70-130

SEMIVOLATILES

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-01
 Client ID: GW2022-P-12
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 13:05
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 10/27/22 16:27
 Analyst: AMV

Extraction Method: EPA 3510C
 Extraction Date: 10/25/22 21:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	45			15-110		

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-02
 Client ID: GW2022-P-12-D
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 13:15
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 10/27/22 17:33
 Analyst: AMV

Extraction Method: EPA 3510C
 Extraction Date: 10/25/22 21:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	49			15-110		

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-03
 Client ID: GW2022-F-4
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 13:25
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 10/27/22 17:54
 Analyst: AMV

Extraction Method: EPA 3510C
 Extraction Date: 10/25/22 21:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	58			15-110		

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-04
 Client ID: GW2022-P-17
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 16:05
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 10/27/22 18:16
 Analyst: AMV

Extraction Method: EPA 3510C
 Extraction Date: 10/25/22 21:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	1740		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	55			15-110		

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 202**Report Date:** 11/08/22**SAMPLE RESULTS**

Lab ID: L2258130-05
 Client ID: GW2022-F-6
 Sample Location: FRANKFORT, NY

Date Collected: 10/18/22 16:20
 Date Received: 10/18/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270E-SIM
 Analytical Date: 10/27/22 18:37
 Analyst: AMV

Extraction Method: EPA 3510C
 Extraction Date: 10/25/22 21:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270E-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	144	32.6	1
Surrogate	% Recovery		Qualifier	Acceptance Criteria		
1,4-Dioxane-d8	50			15-110		

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22**Method Blank Analysis**
Batch Quality Control

Analytical Method: 1,8270E-SIM
 Analytical Date: 10/27/22 12:10
 Analyst: AMV

Extraction Method: EPA 3510C
 Extraction Date: 10/25/22 21:42

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270E-SIM - Mansfield Lab for sample(s): 01-05 Batch: WG1705575-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	54		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9267-7720100C-WH06-507052

Lab Number: L2258130

Project Number: GW SAMPLING ANN 2022

Report Date: 11/08/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab Associated sample(s): 01-05 Batch: WG1705575-2 WG1705575-3								
1,4-Dioxane	103		103		40-140	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	59		63		15-110

Matrix Spike Analysis**Batch Quality Control****Project Name:** 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270E-SIM - Mansfield Lab GW2022-P-12												
Associated sample(s): 01-05 QC Batch ID: WG1705575-4 WG1705575-5 QC Sample: L2258130-01 Client ID:												
1,4-Dioxane	ND	4810	5000	104		4950	103		40-140	1		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	58		70		15-110

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2258130-01A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01A1	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01A2	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01B1	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01B2	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01C1	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01C2	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-01D	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-01D1	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-01D2	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-01E	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-01E1	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-01E2	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-02A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-02B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-02C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-02D	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-02E	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-03A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-03B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-03C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)

Project Name: 9267-7720100C-WH06-507052
Project Number: GW SAMPLING ANN 2022

Serial_No:11082214:06
Lab Number: L2258130
Report Date: 11/08/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2258130-03D	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-03E	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-04A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-04B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-04C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-04D	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-04E	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-05A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-05B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-05C	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-05D	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-05E	Amber 250ml unpreserved	A	7	7	4.6	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2258130-06A	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)
L2258130-06B	Vial HCl preserved	A	NA		4.6	Y	Absent		NYTCL-8260(14)

Project Name: 9267-7720100C-WH06-507052**Lab Number:** L2258130**Project Number:** GW SAMPLING ANN 2022**Report Date:** 11/08/22

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name: 9267-7720100C-WH06-507052
Project Number: GW SAMPLING ANN 2022

Lab Number: L2258130
Report Date: 11/08/22

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Project Name: 9267-7720100C-WH06-507052
Project Number: GW SAMPLING ANN 2022

Lab Number: L2258130
Report Date: 11/08/22

Data Qualifiers

Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



Project Name: 9267-7720100C-WH06-507052
Project Number: GW SAMPLING ANN 2022

Lab Number: L2258130
Report Date: 11/08/22

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 19

Published Date: 4/2/2021 1:14:23 PM

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1		Date Rec'd in Lab 10/19/22		ALPHA Job # 6225830				
Client Information Client: <u>Parsons</u> Address: <u>301 Plainfield Road</u> Site: <u>350 Syracuse, NY 13212</u> Phone: <u>315-552-9737</u> Fax: _____ Email: <u>Eric.Mysona@Parsons.com</u>		Project Information Project Name: <u>GW Sampling Annual 2022 Ferdula, NY</u> Project Location: <u>Frankfort, NY</u> Project # <u>452803</u> (Use Project name as Project #) ☐ Project Manager: <u>Eric Mysona</u> ALPHAQuote #: _____ Turn-Around Time Standard ☐ Due Date: _____ Rush (only if pre approved) ☐ # of Days: _____		Deliverables ☐ ASP-A ☐ ASP-B ☐ EQUIS (1 File) ☐ EQUIS (4 File) ☐ Other _____		Billing Information ☐ Same as Client Info PO # _____		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other _____ ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other: _____		
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: <u>Contact Sharon Nordstrom of AECOM at 610-733-8027</u> Please specify Metals or TAL.		ANALYSIS A2-1,4-Dioxane-SIM NYTCL-8260		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below) Sample Specific Comments		Total Bottles						
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials							
58130-01	GW2022-P-12	10/18/22	13:05	GW	KEM, LIT	X	X					
-01	GW2022-P-12-MS	10/18/22	13:05	GW	KEM, LIT	X	X					
-01	GW2022-P-12-MSD	10/18/22	13:05	GW	KEM, LIT	X	X					
-02	GW2022-P-12-D	10/18/22	13:15	GW	KEM, LIT	X	X					
-03	GW2022-F-4	10/18/22	13:25	GW	KEM, LIT	X	X					
-04	GW2022-P-17	10/18/22	16:05	GW	KEM, LIT	X	X					
-05	GW2022-F-6	10/18/22	16:20	GW	KEM, LIT	X	X					
-06	Trip Blank	10/18/22	-	TB			X					
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type A ✓		Preservative A B		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)		
Relinquished By: <u>Kaitlyn Moranz</u> <u>[Signature]</u>		Date/Time <u>10/18/22 18:45</u> <u>10/18/22 15:50</u>		Received By: <u>[Signature]</u> <u>Cur AAL</u> <u>[Signature]</u>		Date/Time <u>10/18/22 12:45</u> <u>10/19/22 01:15</u>						

ATTACHMENT D

OCTOBER 2022 GROUNDWATER SAMPLING FORMS

Low Flow Ground Water Sampling Log									
Date	10/18/22		Personnel	K. Moranz, L. Toot		Weather	Sunny, 45 deg		
Site Name	Corteva Ferdula LF		Evacuation Method	Bladder Pump		Well #	F-4		
Site Location	Frankfort, NY		Sampling Method	Low Flow		Project #	452803		
Well information:									
Depth of Well	66.49 ft.		*Measurements taken from:						
Depth to Water	17.35 ft.		☒		Top of Well Casing				
H _{wc}	49.14 ft.		☐		Top of Protective Casing				
Depth to Intake	65.49 ft.		☐		(Other, Specify)				
Start Purge Time: 1115									
		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min	
Elapsed Time (min)	Depth to Water (ft)	Temperature (celsius)	pH	Conductivity (ms/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	
0	18.65	12.14	8.24	0.564	182	3.47	37.8	450	
10	22.31	11.73	10.01	0.273	88	1.6	8.6	375	
20	23.98	13.57	10.33	0.271	65	1.49	2.5	125	
30	24.21	13.74	10.54	0.273	54	1.6	0	125	
40	26.38	14.03	10.58	0.274	48	1.83	0	125	
50	27.77	14.03	10.66	0.274	43	2.37	0	125	
60	28.52	14.18	10.69	0.277	41	2.68	0.2	125	
70	29.43	13.72	10.65	0.276	44	2.91	0	125	
80	30.57	13.67	10.68	0.275	42	3.47	0	125	
85	30.91	13.97	10.72	0.278	41	3.79	0	125	
90	31.53	14.46	10.76	0.278	38	4	0	125	
105	33.08	14.03	10.51	0.277	61	3.25	0	125	
110	33.37	13.62	10.65	0.272	54	3.17	0	125	
115	33.79	13.21	10.76	0.276	47	2.99	0	125	
120	34.32	13.04	10.78	0.274	44	2.97	0	125	
125	34.72	12.87	10.79	0.275	45	2.97	0	125	
End Purge Time: 1320									
Water Sample									
Time Collected: 1325		Total volume of purged water removed: ~5 (gallons)							
Physical appearance at start:		Physical appearance at start:							
Color Clear		Color Clear							
Odor None		Odor None							
Sheen/Free Product None		Sheen/Free Product None							
Samples: (See list of parameters collected below) Bailer located in well above water level. Checked for air leak on bladder pump/tubing at 90 minutes. Slight leak at Horiba intake, fixed with teflon tape.									
Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH				
VOCs	40 mL Glass	3	no	HCl	-				
1,4-Dioxane	250 mL Amber	2	no	None	-				

Low Flow Ground Water Sampling Log									
Date	10/18/22	Personnel	K. Moranz, L. Toot		Weather	Sunny			
Site Name	Corteva Ferdula LF	Evacuation Method	Peri Pump		Well #	F-6			
Site Location	Frankfort, NY	Sampling Method	Low Flow		Project #	452803			
Well information:									
Depth of Well	18.12 ft.	*Measurements taken from:							
Depth to Water	12.52 ft.								
H _{wc}	5.6 ft.								
Depth to Intake	17.12 ft.								
		X	Top of Well Casing						
			Top of Protective Casing						
			(Other, Specify)						
Start Purge Time: 1455									
		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min	
Elapsed Time (min)	Depth to Water (ft)	Temperature (celsius)	pH	Conductivity (ms/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)	
0	13.42	16.62	7.91	0.315	37	1.88	115	150	
10	14.5	15.97	8.1	0.28	47	0.81	95.2	150	
15	14.96	15.79	8.13	0.003	51	1.24	77.4	150	
20	15.12	15.27	7.79	0.496	-60	0.78	179	150	
25	15.37	15.29	7.78	0.491	-80	0.54	157	150	
30	15.55	15.21	7.78	0.487	-92	0.49	126	150	
35	15.69	15.17	7.78	0.482	-100	0.48	115	150	
40	15.72	15.08	7.78	0.467	-110	0.42	106	150	
45	15.92	14.99	7.8	0.43	-121	0.36	100	150	
50	16.01	14.86	7.81	0.424	-126	0.39	82.2	150	
55	16.09	14.76	7.81	0.421	-126	0.41	68	150	
60	16.1	14.66	7.82	0.42	-133	0.39	56.9	150	
65	16.12	14.56	7.82	0.419	-137	0.36	49.6	150	
70	16.16	14.47	7.82	0.417	-138	0.33	44.7	150	
75	16.2	14.38	7.83	0.416	-139	0.33	42.3	150	
80	16.25	14.27	7.83	0.416	-142	0.31	39.6	150	
End Purge Time: 1615									
Water Sample									
Time Collected: 1620		Total volume of purged water removed: 3.25 (gallons)							
Physical appearance at start:		Physical appearance at start:							
Color Brown		Color Clear							
Odor None		Odor None							
Sheen/Free Product None		Sheen/Free Product None							
Samples: (See list of parameters collected below) GW2022-F-6									
Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH				
VOCs	40 mL Glass	3	no	HCl	-				
1,4-Dioxane	250 mL Amber	2	no	None	-				

Low Flow Ground Water Sampling Log														
Date	10/18/22	Personnel	K. Moranz, L. Toot		Weather	Cloudy								
Site Name	Corteva Ferdula LF	Evacuation Method	Peri Pump		Well #	P-12								
Site Location	Frankfort, NY	Sampling Method	Low Flow		Project #	452803								
Well information:														
Depth of Well	29.39 ft.	*Measurements taken from: <table border="1"><tr><td>X</td><td>Top of Well Casing</td></tr><tr><td></td><td>Top of Protective Casing</td></tr><tr><td></td><td>(Other, Specify)</td></tr></table>							X	Top of Well Casing		Top of Protective Casing		(Other, Specify)
X	Top of Well Casing													
	Top of Protective Casing													
	(Other, Specify)													
Depth to Water	18.48 ft.													
H _{wc}	10.91 ft.													
Depth to Intake	27.39 ft.													
Start Purge Time: 1130														
		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min						
Elapsed Time (min)	Depth to Water (ft)	Temperature (celsius)	pH	Conductivity (ms/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)						
0	19.04	12.07	5.85	0.832	-18	2.21	380	400						
10	19.48	12.09	7.41	0.802	-68	1.13	250	300						
20	20.28	12.36	7.5	0.799	-41	1.42	159	300						
30	20.54	12	7.53	0.797	-67	0.77	30	200						
35	20.69	48	7.52	0.798	-82	0.72	11.3	200						
40	20.87	12.46	7.52	0.797	-93	0.61	7.05	200						
45	21.06	12.54	7.53	0.796	-100	0.63	3.87	200						
50	21.23	12.38	7.54	0.798	-106	0.8	4.8	200						
55	21.48	12.08	7.55	0.797	-110	0.69	3.34	200						
60	21.63	12.22	7.55	0.795	-113	0.72	2.42	200						
65	21.72	12.41	7.54	0.793	-113	0.73	1.54	200						
70	21.86	12.56	7.53	0.793	-116	0.74	2.5	200						
75	21.95	12.65	7.55	0.791	-116	0.72	1.89	200						
80	22.04	12.77	7.56	0.79	-115	0.73	2.05	200						
85	22.17	12.87	7.57	0.787	-117	0.72	3.09	200						
End Purge Time: 1255														
Water Sample														
Time Collected: 1305		Total volume of purged water removed: 5 (gallons)												
Physical appearance at start:		Physical appearance at start:												
Color Brown		Color Clear												
Odor None		Odor None												
Sheen/Free Product None		Sheen/Free Product None												
Samples: (See list of parameters collected below)			GW2022-P-12; GW2022-P-12-MS; GW2022-P-12-MSD; GW2022-P-12-D (1315)											
Sample	Container Type	# Collected	Field Filtered	Preservative		Container pH								
VOCs	40 mL Glass	3	no	HCl		-								
1,4-Dioxane	250 mL Amber	2	no	None		-								

[illegible]

ATTACHMENT E

2022 LEACHATE DISCHARGE SAMPLE DATA

ADQM Data Review

Site: Corteva Ferdula Landfill (FER), Ferdula, NY

Project: Leachate Sampling 2022

Project Reviewer: Sharon Nordstrom

Date of Review: July 27, 2022

Sample Summary

Field Sample ID	Laboratory Sample ID	Sample Matrix	Filtered	Sample Date	Sample Time	Sample Purpose*
EF2022-LEACHATE	L2235216-01	WATER	N	06/30/22	09:45	FS
EF2022-LEACHATE-D	L2235216-02	WATER	N	06/30/22	09:45	DUP
EF2022-TRIP BLANK	L2235216-03	WATER	N	06/30/22	10:00	TB

FS= Field Sample
DUP= Field Duplicate
TB=Trip Blank

Analytical Protocols

Lab Name	Lab Method	Parameter Name
Alpha Labs Mansfield	1631E	Mercury, Low Level
Alpha Labs Mansfield	6020B	Arsenic
Alpha Labs Mansfield	6020B	Barium
Alpha Labs Mansfield	6020B	Cadmium
Alpha Labs Mansfield	6020B	Chromium
Alpha Labs Mansfield	6020B	Copper
Alpha Labs Mansfield	6020B	Iron
Alpha Labs Mansfield	6020B	Lead
Alpha Labs Mansfield	6020B	Nickel
Alpha Labs Mansfield	6020B	Silver
Alpha Labs Mansfield	6020B	Zinc
Alpha Labs Westborough	1664B	Oil and Grease
Alpha Labs Westborough	2540 D-1997	Total Suspended Solids
Alpha Labs Westborough	420.1	Phenolics, Total
Alpha Labs Westborough	4500-S2 D	Sulfide
Alpha Labs Westborough	5210-B-2011	Biochemical Oxygen Demand (BOD) - 5 Day
Alpha Labs Westborough	8260C	Volatile Organics
Alpha Labs Westborough	8270D	Semi-volatile Organics
Alpha Labs Westborough	9010C	Cyanide, Amenable
Alpha Labs Westborough	9012B	Cyanide
Alpha Labs Westborough	9040C	pH

ADQM Data Review Checklist

Item	Description	Yes	No*	DVM Narrative Report	Laboratory Report	Exception Report (ER) #
A	Did samples meet laboratory acceptability requirements upon receipt (i.e., intact, within temperature, properly preserved, and no headspace where applicable)?	X				
B	Were samples received by the laboratory in agreement with the associated chain of custody?	X				
C	Was the chain of custody properly completed by the laboratory and/or field team?	X				1
D	Were samples prepped/analyzed by the laboratory within method holding times?		X	X		
E	Were data review criteria met for method blanks, LCSs/LCSDs, MSs/MSDs, PDSs, SDs, replicates, surrogates, sample results within calibration range, total/dissolved samples, field duplicates, field/equipment/trip blanks?		X	X		
F	Were all data usable and not R qualified?	X				2
ER#	Description					
1	To meet EIM database requirements, the sampling time was entered as 09:45 for both the leachate sample and the field duplicate.					
2	The trip blank sample was analyzed for the target volatiles on 7/20/22 (6 days past the 14-day analysis holding time). The leachate and field duplicate samples were analyzed for pH on 7/2/22 (2 days after collection).					
Other QA/QC Items to Note:						

* See DVM Narrative Report, Laboratory Report, and/or ER # for further details as indicated.

The electronic data submitted for this project were reviewed via the Data Verification Module (DVM) process. Overall the data are acceptable for use without qualification, except as noted on the attached DVM Narrative Report.

Data Verification Module (DVM)

The DVM is an internal review process used by the ADQM group to assist with the determination of data usability. The electronic data deliverables received from the laboratory are loaded into the Locus EIM™ database and processed through a series of data quality checks, which are a combination of software,

Locus EIM™ database Data Verification Module (DVM), and manual reviewer evaluations. The data are evaluated against the following data usability checks:

- Field and laboratory blank contamination
- US EPA hold time criteria
- Missing Quality Control (QC) samples
- Matrix spike (MS)/matrix spike duplicate (MSD) recoveries and the relative percent differences (RPDs) between these spikes
- Laboratory control sample (LCS)/laboratory control sample duplicate (LCSD) recoveries and the RPD between these spikes
- Surrogate spike recoveries for organic analyses
- Difference/RPD between field duplicate sample pairs
- RPD between laboratory replicates for inorganic analyses
- Difference/percent difference between total and dissolved sample pairs

There are two qualifier fields in EIM:

Laboratory Qualifier is the qualifier assigned by the laboratory and may not reflect the usability of the data. This qualifier may have many different meanings and can vary between labs and over time within the same lab. Please refer to the laboratory report for a description of the laboratory qualifiers. As they are laboratory descriptors they are not to be used when evaluating the data.

Validation Qualifier is the 3rd party formal validation qualifier if this was performed. Otherwise this field contains the qualifier resulting from the ADQM DVM review process. This qualifier assesses the usability of the data and may not equal the laboratory qualifier. The DVM applies the following data evaluation qualifiers to analysis results, as warranted:

Qualifier	Definition
B	Not detected substantially above the level reported in the laboratory or field blanks.
R	Unusable result. Analyte may or may not be present in the sample.
J	Analyte present. Reported value may not be accurate or precise.
UJ	Not detected. Reporting limit may not be accurate or precise.

The **Validation Status Code** field is set to “DVM” if the ADQM DVM process has been performed. If the DVM has not been run, the field will be blank.

If the DVM has been run (**Validation Status Code** equals “DVM”), use the **Validation Qualifier**.

If the data have been validated by a third party, the field “**Validated By**” will be set to the validator (e.g., ESI for Environmental Standards, Inc.).

OR

<Placeholder for DVM Narrative Report>
Exported from EIM for Qualified Data

<Placeholder for Laboratory Report(s)>

<Placeholder for Environmental Standards Report>

DVM Narrative Report

Site: Ferdula

Sampling Program: LEACHATE SAMPLING 2022

Validation Options:

LABSTATS

Validation Reason Code: The analysis hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Ethylbenzene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Styrene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	cis-1,3-Dichloropropene	0.14	UG/L	MDL	0.14	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	trans-1,3-Dichloropropene	0.16	UG/L	MDL	0.16	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	1,2-Dichloroethane	0.13	UG/L	MDL	0.13	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Methyl Isobutyl Ketone	1.0	UG/L	MDL	1.0	5.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Toluene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Chlorobenzene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Chlorodibromomethane	0.15	UG/L	MDL	0.15	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Tetrachloroethene	0.18	UG/L	MDL	0.18	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Xylenes	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	cis-1,2 Dichloroethene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	trans-1,2-Dichloroethene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Carbon Tetrachloride	0.13	UG/L	MDL	0.13	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	2-Hexanone	1.0	UG/L	MDL	1.0	5.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Acetone	1.5	UG/L	MDL	1.5	5.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Chloroform	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Benzene	0.16	UG/L	MDL	0.16	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	1,1,1-Trichloroethane	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Methyl Bromide	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Methyl Chloride	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Ethyl Chloride	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		

Site: Ferdula

Sampling Program: LEACHATE SAMPLING 2022

Validation Options:

LABSTATS

Validation Reason Code: The analysis hold time for this sample was exceeded. The reporting limit may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Vinyl Chloride	0.07	UG/L	MDL	0.07	1.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Methylene Chloride	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Carbon Disulfide	1.0	UG/L	MDL	1.0	5.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Bromoform	0.65	UG/L	MDL	0.65	2.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Bromodichloromethane	0.19	UG/L	MDL	0.19	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	1,1-Dichloroethane	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	1,1-Dichloroethene	0.17	UG/L	MDL	0.17	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	1,2-Dichloropropane	0.14	UG/L	MDL	0.14	1.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Methyl Ethyl Ketone	1.9	UG/L	MDL	1.9	5.0	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	1,1,2-Trichloroethane	0.50	UG/L	MDL	0.50	1.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	Trichloroethene	0.18	UG/L	MDL	0.18	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	1,1,2,2-Tetrachloroethane	0.17	UG/L	MDL	0.17	0.50	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	ortho-Xylene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		
EF2022-TRIP BLANK	06/30/2022	L2235216-03	meta- and para-Xylene	0.70	UG/L	MDL	0.70	2.5	UJ	8260C		

Field Sample ID	Date	Sampled Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
EF2022-LEACHATE-D	06/30/2022	L2235216-02	Carbazole	0.49	UG/L	MDL	0.49	2.0	UJ	8270D		3510C
EF2022-LEACHATE-D	06/30/2022	L2235216-02	3,3'-Dichlorobenzidine	1.6	UG/L	MDL	1.6	5.0	UJ	8270D		3510C
EF2022-LEACHATE	06/30/2022	L2235216-01	Carbazole	0.49	UG/L	MDL	0.49	2.0	UJ	8270D		3510C
EF2022-LEACHATE	06/30/2022	L2235216-01	3,3'-Dichlorobenzidine	1.6	UG/L	MDL	1.6	5.0	UJ	8270D		3510C
EF2022-LEACHATE-D	06/30/2022	L2235216-02	4-Chloroaniline	1.1	UG/L	MDL	1.1	5.0	UJ	8270D		3510C
EF2022-LEACHATE	06/30/2022	L2235216-01	4-Chloroaniline	1.1	UG/L	MDL	1.1	5.0	UJ	8270D		3510C

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
EF2022-LEACHATE	06/30/2022	L2235216-01	Sulfide	0.10	MG/L	MDL	0.10	0.10	UJ	4500-S2 D-2000		
EF2022-LEACHATE	06/30/2022	L2235216-01	Oil and Grease	4.0	MG/L	MDL	4.0	4.0	UJ	1664B		
EF2022-LEACHATE-D	06/30/2022	L2235216-02	Sulfide	0.10	MG/L	MDL	0.10	0.10	UJ	4500-S2 D-2000		

Validation Reason Code: The analysis hold time for this sample was exceeded. The reported result may be biased low.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
EF2022-LEACHATE	06/30/2022	L2235216-01	Hydrogen Ion	7.0	PH UNITS	MDL	NA	NA	J	9040C		
EF2022-LEACHATE-D	06/30/2022	L2235216-02	Hydrogen Ion	6.9	PH UNITS	MDL	NA	NA	J	9040C		

Validation Reason Code: The result is estimated since the concentration is between the method detection limit and practical quantitation limit.

Field Sample ID	Date Sampled	Lab Sample ID	Analyte	Result	Units	Type	MDL	PQL	Validation Qualifier	Analytical Method	Pre-prep	Prep
EF2022-LEACHATE	06/30/2022	L2235216-01	Cyanide	0.003	MG/L	MDL	0.001	0.005	J	9012B		
EF2022-LEACHATE	06/30/2022	L2235216-01	Nickel	0.00158	MG/L	MDL	0.00055	0.00200	J	6020B		3005A
EF2022-LEACHATE	06/30/2022	L2235216-01	Chromium	0.00023	MG/L	MDL	0.00017	0.00100	J	6020B		3005A
EF2022-LEACHATE-D	06/30/2022	L2235216-02	Nickel	0.00151	MG/L	MDL	0.00055	0.00200	J	6020B		3005A
EF2022-LEACHATE-D	06/30/2022	L2235216-02	Chromium	0.00024	MG/L	MDL	0.00017	0.00100	J	6020B		3005A
EF2022-LEACHATE-D	06/30/2022	L2235216-02	Vinyl Chloride	9.1	UG/L	MDL	0.71	10	J	8260C		



ANALYTICAL REPORT

Lab Number:	L2235216
Client:	DowDuPont, Inc. 4051 Ogletown Road Sabre Building; Suite 300 Newark, DE 19713
ATTN:	Sharon Nordstrom
Phone:	(302) 781-5900
Project Name:	9762-7720100C-WH06-507052
Project Number:	LEACHATE SAMPLING 22
Report Date:	07/26/22

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 9762-7720100C-WH06-507052
Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216
Report Date: 07/26/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2235216-01	EF2022-LEACHATE	WATER	(FER) FERDULA, NY	06/30/22 09:45	06/30/22
L2235216-02	EF2022-LEACHATE-D	WATER	(FER) FERDULA, NY	06/30/22 10:00	06/30/22
L2235216-03	TRIP BLANK	WATER	(FER) FERDULA, NY	06/30/22 10:00	06/30/22

Project Name: 9762-7720100C-WH06-507052
Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216
Report Date: 07/26/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22**Case Narrative (continued)****Report Submission**

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

The WG1665723-6/-7 MS/MSD recoveries, performed on L2235216-01, are outside the acceptance criteria for cis-1,2-dichloroethene (0%/0%). The unacceptable percent recoveries are attributed to the elevated concentration of target compound present in the native sample.

Sulfide

The WG1659895-4 MS recovery, performed on L2235216-01, is outside the acceptance criteria for sulfide (35%); however, the associated LCS recovery is within criteria. No further action was taken.

Oil & Grease, Hem-Grav

The WG1667151-4 MS recovery, performed on L2235216-01, is outside the acceptance criteria for oil & grease, hem-grav (74%); however, the associated LCS recovery is within criteria. No further action was taken.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom**Title:** Technical Director/Representative**Date:** 07/26/22

ORGANICS

VOLATILES

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-01 D

Date Collected: 06/30/22 09:45

Client ID: EF2022-LEACHATE

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 07/14/22 13:08

Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	11		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10
Trichloroethene	260		ug/l	5.0	1.8	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS****Lab ID:** L2235216-01 D**Date Collected:** 06/30/22 09:45**Client ID:** EF2022-LEACHATE**Date Received:** 06/30/22**Sample Location:** (FER) FERDULA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	1100		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	105		70-130

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-02 D

Date Collected: 06/30/22 10:00

Client ID: EF2022-LEACHATE-D

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 07/13/22 17:09

Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	ND		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	9.1	J	ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10
Trichloroethene	210		ug/l	5.0	1.8	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-02 D

Date Collected: 06/30/22 10:00

Client ID: EF2022-LEACHATE-D

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	1000		ug/l	25	7.0	10
Styrene	ND		ug/l	25	7.0	10
Acetone	ND		ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	107		70-130

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-03
 Client ID: TRIP BLANK
 Sample Location: (FER) FERDULA, NY

Date Collected: 06/30/22 10:00
 Date Received: 06/30/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/20/22 09:31
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS****Lab ID:** L2235216-03**Date Collected:** 06/30/22 10:00**Client ID:** TRIP BLANK**Date Received:** 06/30/22**Sample Location:** (FER) FERDULA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/13/22 10:25
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1663032-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/13/22 10:25
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1663032-5					
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	107		70-130

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/20/22 09:08
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1665444-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/20/22 09:08
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1665444-5					
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/14/22 10:59
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1665723-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/14/22 10:59
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1665723-5					
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	106		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1663032-3 WG1663032-4								
Methylene chloride	86		91		70-130	6		20
1,1-Dichloroethane	95		98		70-130	3		20
Chloroform	94		94		70-130	0		20
Carbon tetrachloride	96		100		63-132	4		20
1,2-Dichloropropane	85		86		70-130	1		20
Dibromochloromethane	88		95		63-130	8		20
1,1,2-Trichloroethane	91		96		70-130	5		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	90		93		75-130	3		20
1,2-Dichloroethane	97		100		70-130	3		20
1,1,1-Trichloroethane	97		99		67-130	2		20
Bromodichloromethane	89		96		67-130	8		20
trans-1,3-Dichloropropene	89		94		70-130	5		20
cis-1,3-Dichloropropene	87		92		70-130	6		20
Bromoform	85		93		54-136	9		20
1,1,2,2-Tetrachloroethane	98		100		67-130	2		20
Benzene	91		93		70-130	2		20
Toluene	93		93		70-130	0		20
Ethylbenzene	93		94		70-130	1		20
Chloromethane	82		82		64-130	0		20
Bromomethane	44		50		39-139	13		20
Vinyl chloride	94		98		55-140	4		20
Chloroethane	98		110		55-138	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1663032-3 WG1663032-4								
1,1-Dichloroethene	93		95		61-145	2		20
trans-1,2-Dichloroethene	92		93		70-130	1		20
Trichloroethene	80		82		70-130	2		20
p/m-Xylene	95		95		70-130	0		20
o-Xylene	95		95		70-130	0		20
cis-1,2-Dichloroethene	89		92		70-130	3		20
Styrene	90		95		70-130	5		20
Acetone	72		82		58-148	13		20
Carbon disulfide	96		96		51-130	0		20
2-Butanone	78		88		63-138	12		20
4-Methyl-2-pentanone	83		92		59-130	10		20
2-Hexanone	82		91		57-130	10		20

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	110		112		70-130
Toluene-d8	102		101		70-130
4-Bromofluorobenzene	96		95		70-130
Dibromofluoromethane	105		106		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1665444-3 WG1665444-4								
Methylene chloride	94		96		70-130	2		20
1,1-Dichloroethane	100		99		70-130	1		20
Chloroform	100		99		70-130	1		20
Carbon tetrachloride	88		89		63-132	1		20
1,2-Dichloropropane	120		120		70-130	0		20
Dibromochloromethane	79		85		63-130	7		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	96		100		75-130	4		20
1,2-Dichloroethane	94		95		70-130	1		20
1,1,1-Trichloroethane	96		96		67-130	0		20
Bromodichloromethane	120		120		67-130	0		20
trans-1,3-Dichloropropene	77		85		70-130	10		20
cis-1,3-Dichloropropene	85		130		70-130	42	Q	20
Bromoform	71		79		54-136	11		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	98		97		70-130	1		20
Toluene	100		110		70-130	10		20
Ethylbenzene	94		99		70-130	5		20
Chloromethane	95		88		64-130	8		20
Bromomethane	68		64		39-139	6		20
Vinyl chloride	100		100		55-140	0		20
Chloroethane	120		130		55-138	8		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1665444-3 WG1665444-4								
1,1-Dichloroethene	100		100		61-145	0		20
trans-1,2-Dichloroethene	97		100		70-130	3		20
Trichloroethene	100		100		70-130	0		20
p/m-Xylene	90		95		70-130	5		20
o-Xylene	90		95		70-130	5		20
cis-1,2-Dichloroethene	100		99		70-130	1		20
Styrene	90		95		70-130	5		20
Acetone	94		97		58-148	3		20
Carbon disulfide	98		99		51-130	1		20
2-Butanone	85		87		63-138	2		20
4-Methyl-2-pentanone	98		100		59-130	2		20
2-Hexanone	82		93		57-130	13		20

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	102		101		70-130
Toluene-d8	103		111		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	96		94		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1665723-3 WG1665723-4								
Methylene chloride	100		98		70-130	2		20
1,1-Dichloroethane	100		99		70-130	1		20
Chloroform	110		100		70-130	10		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	99		98		70-130	1		20
Dibromochloromethane	99		100		63-130	1		20
1,1,2-Trichloroethane	99		98		70-130	1		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	110		100		75-130	10		20
1,2-Dichloroethane	99		100		70-130	1		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	99		98		70-130	1		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	99		100		54-136	1		20
1,1,2,2-Tetrachloroethane	98		100		67-130	2		20
Benzene	100		110		70-130	10		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	77		70		64-130	10		20
Bromomethane	67		59		39-139	13		20
Vinyl chloride	110		100		55-140	10		20
Chloroethane	100		100		55-138	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1665723-3 WG1665723-4								
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	110		110		70-130	0		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	110		110		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Styrene	110		110		70-130	0		20
Acetone	76		73		58-148	4		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	68		81		63-138	17		20
4-Methyl-2-pentanone	81		78		59-130	4		20
2-Hexanone	71		73		57-130	3		20

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		97		70-130
Toluene-d8	99		97		70-130
4-Bromofluorobenzene	100		97		70-130
Dibromofluoromethane	103		103		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216

Report Date: 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1665723-6 WG1665723-7 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
Methylene chloride	ND	100	96	96		100	100		70-130	4		20
1,1-Dichloroethane	ND	100	100	100		110	110		70-130	10		20
Chloroform	ND	100	100	100		120	120		70-130	18		20
Carbon tetrachloride	ND	100	120	120		130	130		63-132	8		20
1,2-Dichloropropane	ND	100	90	90		100	100		70-130	11		20
Dibromochloromethane	ND	100	95	95		110	110		63-130	15		20
1,1,2-Trichloroethane	ND	100	99	99		110	110		70-130	11		20
Tetrachloroethene	ND	100	110	110		120	120		70-130	9		20
Chlorobenzene	ND	100	97	97		110	110		75-130	13		20
1,2-Dichloroethane	ND	100	99	99		100	100		70-130	1		20
1,1,1-Trichloroethane	ND	100	120	120		130	130		67-130	8		20
Bromodichloromethane	ND	100	100	100		110	110		67-130	10		20
trans-1,3-Dichloropropene	ND	100	94	94		100	100		70-130	6		20
cis-1,3-Dichloropropene	ND	100	93	93		100	100		70-130	7		20
Bromoform	ND	100	91	91		100	100		54-136	9		20
1,1,2,2-Tetrachloroethane	ND	100	91	91		98	98		67-130	7		20
Benzene	ND	100	100	100		110	110		70-130	10		20
Toluene	ND	100	99	99		110	110		70-130	11		20
Ethylbenzene	ND	100	100	100		120	120		70-130	18		20
Chloromethane	ND	100	72	72		79	79		64-130	9		20
Bromomethane	ND	100	53	53		62	62		39-139	16		20
Vinyl chloride	11	100	110	99		120	109		55-140	9		20
Chloroethane	ND	100	100	100		110	110		55-138	10		20

Matrix Spike Analysis**Batch Quality Control****Project Name:** 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1665723-6 WG1665723-7 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
1,1-Dichloroethene	ND	100	110	110		120	120		61-145	9		20
trans-1,2-Dichloroethene	ND	100	100	100		120	120		70-130	18		20
Trichloroethene	260	100	350	90		370	110		70-130	6		20
p/m-Xylene	ND	200	210	105		230	115		70-130	9		20
o-Xylene	ND	200	200	100		230	115		70-130	14		20
cis-1,2-Dichloroethene	1100	100	1100	0	Q	1100	0	Q	70-130	0		20
Styrene	ND	200	210	105		230	115		70-130	9		20
Acetone	ND	100	110	110		97	97		58-148	13		20
Carbon disulfide	ND	100	110	110		110	110		51-130	0		20
2-Butanone	ND	100	70	70		78	78		63-138	11		20
4-Methyl-2-pentanone	ND	100	76	76		82	82		59-130	8		20
2-Hexanone	ND	100	70	70		79	79		57-130	12		20

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		101		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	103		101		70-130
Toluene-d8	96		99		70-130

SEMIVOLATILES

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-01
 Client ID: EF2022-LEACHATE
 Sample Location: (FER) FERDULA, NY

Date Collected: 06/30/22 09:45
 Date Received: 06/30/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 07/13/22 03:10
 Analyst: CMM

Extraction Method: EPA 3510C
 Extraction Date: 07/04/22 08:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/l	2.0	0.44	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
Fluoranthene	ND		ug/l	2.0	0.26	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Isophorone	ND		ug/l	5.0	1.2	1
Naphthalene	ND		ug/l	2.0	0.46	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS****Lab ID:** L2235216-01**Date Collected:** 06/30/22 09:45**Client ID:** EF2022-LEACHATE**Date Received:** 06/30/22**Sample Location:** (FER) FERDULA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Chrysene	ND		ug/l	2.0	0.34	1
Acenaphthylene	ND		ug/l	2.0	0.46	1
Anthracene	ND		ug/l	2.0	0.33	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1
Fluorene	ND		ug/l	2.0	0.41	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Pyrene	ND		ug/l	2.0	0.28	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS****Lab ID:** L2235216-01**Date Collected:** 06/30/22 09:45**Client ID:** EF2022-LEACHATE**Date Received:** 06/30/22**Sample Location:** (FER) FERDULA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	54		15-120
2,4,6-Tribromophenol	57		10-120
4-Terphenyl-d14	55		41-149

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-02
 Client ID: EF2022-LEACHATE-D
 Sample Location: (FER) FERDULA, NY

Date Collected: 06/30/22 10:00
 Date Received: 06/30/22
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 07/23/22 12:56
 Analyst: CMM

Extraction Method: EPA 3510C
 Extraction Date: 07/04/22 08:03

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/l	2.0	0.44	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
Fluoranthene	ND		ug/l	2.0	0.26	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Isophorone	ND		ug/l	5.0	1.2	1
Naphthalene	ND		ug/l	2.0	0.46	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-02

Date Collected: 06/30/22 10:00

Client ID: EF2022-LEACHATE-D

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Chrysene	ND		ug/l	2.0	0.34	1
Acenaphthylene	ND		ug/l	2.0	0.46	1
Anthracene	ND		ug/l	2.0	0.33	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1
Fluorene	ND		ug/l	2.0	0.41	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Pyrene	ND		ug/l	2.0	0.28	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 2**Report Date:** 07/26/22**SAMPLE RESULTS****Lab ID:** L2235216-02**Date Collected:** 06/30/22 10:00**Client ID:** EF2022-LEACHATE-D**Date Received:** 06/30/22**Sample Location:** (FER) FERDULA, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	63		10-120
4-Terphenyl-d14	71		41-149

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/06/22 00:59
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 07/04/22 08:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1658617-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/06/22 00:59
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 07/04/22 08:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1658617-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 07/06/22 00:59
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 07/04/22 08:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1658617-1					
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	42		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	55		23-120
2-Fluorobiphenyl	55		15-120
2,4,6-Tribromophenol	50		10-120
4-Terphenyl-d14	54		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1658617-2 WG1658617-3								
Acenaphthene	48		45		37-111	6		30
1,2,4-Trichlorobenzene	50		45		39-98	11		30
Hexachlorobenzene	52		48		40-140	8		30
Bis(2-chloroethyl)ether	47		43		40-140	9		30
2-Chloronaphthalene	49		46		40-140	6		30
1,2-Dichlorobenzene	50		46		40-140	8		30
1,3-Dichlorobenzene	49		46		40-140	6		30
1,4-Dichlorobenzene	49		44		36-97	11		30
3,3'-Dichlorobenzidine	43		32	Q	40-140	29		30
2,4-Dinitrotoluene	65		62		48-143	5		30
2,6-Dinitrotoluene	63		58		40-140	8		30
Fluoranthene	49		43		40-140	13		30
4-Chlorophenyl phenyl ether	48		47		40-140	2		30
4-Bromophenyl phenyl ether	54		48		40-140	12		30
Bis(2-chloroisopropyl)ether	51		48		40-140	6		30
Bis(2-chloroethoxy)methane	50		45		40-140	11		30
Hexachlorobutadiene	45		42		40-140	7		30
Hexachlorocyclopentadiene	40		41		40-140	2		30
Hexachloroethane	43		40		40-140	7		30
Isophorone	43		40		40-140	7		30
Naphthalene	46		44		40-140	4		30
Nitrobenzene	51		44		40-140	15		30
NDPA/DPA	53		48		40-140	10		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1658617-2 WG1658617-3								
n-Nitrosodi-n-propylamine	40		41		29-132	2		30
Bis(2-ethylhexyl)phthalate	50		49		40-140	2		30
Butyl benzyl phthalate	50		47		40-140	6		30
Di-n-butylphthalate	46		43		40-140	7		30
Di-n-octylphthalate	45		43		40-140	5		30
Diethyl phthalate	51		46		40-140	10		30
Dimethyl phthalate	57		51		40-140	11		30
Benzo(a)anthracene	49		44		40-140	11		30
Benzo(a)pyrene	55		46		40-140	18		30
Benzo(b)fluoranthene	55		48		40-140	14		30
Benzo(k)fluoranthene	48		41		40-140	16		30
Chrysene	50		45		40-140	11		30
Acenaphthylene	52		48		45-123	8		30
Anthracene	49		44		40-140	11		30
Benzo(ghi)perylene	54		46		40-140	16		30
Fluorene	50		47		40-140	6		30
Phenanthrene	48		44		40-140	9		30
Dibenzo(a,h)anthracene	53		45		40-140	16		30
Indeno(1,2,3-cd)pyrene	51		44		40-140	15		30
Pyrene	48		43		26-127	11		30
4-Chloroaniline	33	Q	30	Q	40-140	10		30
2-Nitroaniline	70		64		52-143	9		30
3-Nitroaniline	58		47		25-145	21		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1658617-2 WG1658617-3								
4-Nitroaniline	60		56		51-143	7		30
Dibenzofuran	50		46		40-140	8		30
2-Methylnaphthalene	49		46		40-140	6		30
2,4,6-Trichlorophenol	55		48		30-130	14		30
p-Chloro-m-cresol	49		44		23-97	11		30
2-Chlorophenol	52		47		27-123	10		30
2,4-Dichlorophenol	56		50		30-130	11		30
2,4-Dimethylphenol	46		44		30-130	4		30
2-Nitrophenol	68		60		30-130	13		30
4-Nitrophenol	48		42		10-80	13		30
2,4-Dinitrophenol	60		52		20-130	14		30
4,6-Dinitro-o-cresol	79		75		20-164	5		30
Pentachlorophenol	44		38		9-103	15		30
Phenol	35		34		12-110	3		30
2-Methylphenol	48		43		30-130	11		30
3-Methylphenol/4-Methylphenol	53		46		30-130	14		30
2,4,5-Trichlorophenol	56		49		30-130	13		30
Carbazole	51	Q	44	Q	55-144	15		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1658617-2 WG1658617-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	41		39		21-120
Phenol-d6	38		32		10-120
Nitrobenzene-d5	51		47		23-120
2-Fluorobiphenyl	50		48		15-120
2,4,6-Tribromophenol	56		55		10-120
4-Terphenyl-d14	51		45		41-149

Matrix Spike Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216

Report Date: 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1658617-4 WG1658617-5 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
Acenaphthene	ND	18.2	9.1	50		8.8	48		37-111	3		30
1,2,4-Trichlorobenzene	ND	18.2	8.8	48		9.4	52		39-98	7		30
Hexachlorobenzene	ND	18.2	10	55		9.7	53		40-140	3		30
Bis(2-chloroethyl)ether	ND	18.2	8.4	46		8.5	47		40-140	1		30
2-Chloronaphthalene	ND	18.2	9.6	53		9.1	50		40-140	5		30
1,2-Dichlorobenzene	ND	18.2	9.2	51		9.1	50		40-140	1		30
1,3-Dichlorobenzene	ND	18.2	9.0	50		9.2	51		40-140	2		30
1,4-Dichlorobenzene	ND	18.2	8.8	48		8.8	48		36-97	0		30
3,3'-Dichlorobenzidine	ND	18.2	8.1	45		6.6	36	Q	40-140	20		30
2,4-Dinitrotoluene	ND	18.2	14	77		13	72		48-143	7		30
2,6-Dinitrotoluene	ND	18.2	13	72		13	72		40-140	0		30
Fluoranthene	ND	18.2	10	55		9.2	51		40-140	8		30
4-Chlorophenyl phenyl ether	ND	18.2	10	55		9.0	50		40-140	11		30
4-Bromophenyl phenyl ether	ND	18.2	10	55		10	55		40-140	0		30
Bis(2-chloroisopropyl)ether	ND	18.2	9.2	51		9.5	52		40-140	3		30
Bis(2-chloroethoxy)methane	ND	18.2	10	55		9.2	51		40-140	8		30
Hexachlorobutadiene	ND	18.2	7.9	43		8.6	47		40-140	8		30
Hexachlorocyclopentadiene	ND	18.2	8.0	44		7.9	43		40-140	1		30
Hexachloroethane	ND	18.2	8.1	45		8.4	46		40-140	4		30
Isophorone	ND	18.2	8.8	48		8.4	46		40-140	5		30
Naphthalene	ND	18.2	9.3	51		9.0	50		40-140	3		30
Nitrobenzene	ND	18.2	9.3	51		9.6	53		40-140	3		30
NDPA/DPA	ND	18.2	11	61		9.8	54		40-140	12		30

Matrix Spike Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216

Report Date: 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1658617-4 WG1658617-5 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
n-Nitrosodi-n-propylamine	ND	18.2	7.8	43		8.0	44		29-132	3		30
Bis(2-ethylhexyl)phthalate	ND	18.2	11	61		10	55		40-140	10		30
Butyl benzyl phthalate	ND	18.2	11	61		11	61		40-140	0		30
Di-n-butylphthalate	ND	18.2	9.7	53		9.0	50		40-140	7		30
Di-n-octylphthalate	ND	18.2	11	61		10	55		40-140	10		30
Diethyl phthalate	ND	18.2	10	55		9.9	54		40-140	1		30
Dimethyl phthalate	ND	18.2	11	61		10	55		40-140	10		30
Benzo(a)anthracene	ND	18.2	10	55		9.7	53		40-140	3		30
Benzo(a)pyrene	ND	18.2	11	61		9.9	54		40-140	11		30
Benzo(b)fluoranthene	ND	18.2	10	55		9.5	52		40-140	5		30
Benzo(k)fluoranthene	ND	18.2	10	55		9.5	52		40-140	5		30
Chrysene	ND	18.2	10	55		9.3	51		40-140	7		30
Acenaphthylene	ND	18.2	10	55		9.9	54		45-123	1		30
Anthracene	ND	18.2	9.6	53		8.7	48		40-140	10		30
Benzo(ghi)perylene	ND	18.2	9.9	54		9.3	51		40-140	6		30
Fluorene	ND	18.2	10	55		9.4	52		40-140	6		30
Phenanthrene	ND	18.2	9.8	54		8.8	48		40-140	11		30
Dibenzo(a,h)anthracene	ND	18.2	10	55		9.4	52		40-140	6		30
Indeno(1,2,3-cd)pyrene	ND	18.2	9.5	52		9.0	50		40-140	5		30
Pyrene	ND	18.2	10	55		9.3	51		26-127	7		30
4-Chloroaniline	ND	18.2	6.5	36	Q	5.4	30	Q	40-140	18		30
2-Nitroaniline	ND	18.2	14	77		14	77		52-143	0		30
3-Nitroaniline	ND	18.2	11	61		9.8	54		25-145	12		30

Matrix Spike Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216

Report Date: 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1658617-4 WG1658617-5 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
4-Nitroaniline	ND	18.2	13	72		11	61		51-143	17		30
Dibenzofuran	ND	18.2	9.7	53		9.1	50		40-140	6		30
2-Methylnaphthalene	ND	18.2	9.4	52		9.2	51		40-140	2		30
2,4,6-Trichlorophenol	ND	18.2	10	55		10	55		30-130	0		30
p-Chloro-m-cresol	ND	18.2	10	55		9.1	50		23-97	9		30
2-Chlorophenol	ND	18.2	10	55		10	55		27-123	0		30
2,4-Dichlorophenol	ND	18.2	11	61		11	61		30-130	0		30
2,4-Dimethylphenol	ND	18.2	8.4	46		8.0	44		30-130	5		30
2-Nitrophenol	ND	18.2	13	72		13	72		30-130	0		30
4-Nitrophenol	ND	18.2	11	61		11	61		10-80	0		30
2,4-Dinitrophenol	ND	18.2	17.1	94		16.1	88		20-130	6		30
4,6-Dinitro-o-cresol	ND	18.2	17	94		17	94		20-164	0		30
Pentachlorophenol	ND	18.2	10	55		10	55		9-103	0		30
Phenol	ND	18.2	7.3	40		7.1	39		12-110	3		30
2-Methylphenol	ND	18.2	9.1	50		8.5	47		30-130	7		30
3-Methylphenol/4-Methylphenol	ND	18.2	9.8	54		9.6	53		30-130	2		30
2,4,5-Trichlorophenol	ND	18.2	11	61		10	55		30-130	10		30
Carbazole	ND	18.2	10	55		9.7	53	Q	55-144	3		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,6-Tribromophenol	67		66		10-120
2-Fluorobiphenyl	52		51		15-120

Matrix Spike Analysis**Batch Quality Control****Project Name:** 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1658617-4 WG1658617-5 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
2-Fluorophenol	44		44		21-120
4-Terphenyl-d14	56		49		41-149
Nitrobenzene-d5	55		53		23-120
Phenol-d6	37		37		10-120

METALS

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-01

Date Collected: 06/30/22 09:45

Client ID: EF2022-LEACHATE

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.01186		mg/l	0.00050	0.00016	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Barium, Total	0.3929		mg/l	0.00050	0.00017	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Chromium, Total	0.00023	J	mg/l	0.00100	0.00017	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Copper, Total	ND		mg/l	0.00100	0.00038	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Iron, Total	22.5		mg/l	0.0500	0.0191	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Lead, Total	0.00564		mg/l	0.00100	0.00034	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Nickel, Total	0.00158	J	mg/l	0.00200	0.00055	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Silver, Total	ND		mg/l	0.00040	0.00016	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Zinc, Total	0.01181		mg/l	0.01000	0.00341	1	07/07/22 18:10	07/19/22 21:36	EPA 3005A	1,6020B	SV
Low-Level Mercury - Mansfield Lab											
Mercury, Total	0.0010		ug/l	0.0005	0.0001	1	07/05/22 16:10	07/21/22 13:15	EPA 1631E	82,1631E	ML



Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22**SAMPLE RESULTS**

Lab ID: L2235216-02

Date Collected: 06/30/22 10:00

Client ID: EF2022-LEACHATE-D

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.01236		mg/l	0.00050	0.00016	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Barium, Total	0.3899		mg/l	0.00050	0.00017	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Chromium, Total	0.00024	J	mg/l	0.00100	0.00017	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Copper, Total	ND		mg/l	0.00100	0.00038	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Iron, Total	22.9		mg/l	0.0500	0.0191	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Lead, Total	0.00532		mg/l	0.00100	0.00034	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Nickel, Total	0.00151	J	mg/l	0.00200	0.00055	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Silver, Total	ND		mg/l	0.00040	0.00016	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Zinc, Total	0.01281		mg/l	0.01000	0.00341	1	07/07/22 18:10	07/19/22 22:53	EPA 3005A	1,6020B	SV
Low-Level Mercury - Mansfield Lab											
Mercury, Total	0.0012		ug/l	0.0005	0.0001	1	07/05/22 16:10	07/21/22 13:38	EPA 1631E	82,1631E	ML



Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 2

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1660035-1									
Arsenic, Total	ND	mg/l	0.00050	0.00016	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Barium, Total	ND	mg/l	0.00050	0.00017	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Cadmium, Total	ND	mg/l	0.00020	0.00005	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Chromium, Total	ND	mg/l	0.00100	0.00017	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Copper, Total	ND	mg/l	0.00100	0.00038	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Iron, Total	ND	mg/l	0.0500	0.0191	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Lead, Total	ND	mg/l	0.00100	0.00034	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Nickel, Total	ND	mg/l	0.00200	0.00055	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Silver, Total	ND	mg/l	0.00040	0.00016	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV
Zinc, Total	ND	mg/l	0.01000	0.00341	1	07/07/22 18:10	07/19/22 20:52	1,6020B	SV

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Low-Level Mercury - Mansfield Lab for sample(s): 01-02 Batch: WG1665300-1									
Mercury, Total	ND	ug/l	0.0005	0.0001	1	07/05/22 16:10	07/21/22 11:03	82,1631E	ML

Prep Information

Digestion Method: EPA 1631E



Lab Control Sample Analysis**Batch Quality Control****Project Name:** 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1660035-2								
Arsenic, Total	106		-		80-120	-		
Barium, Total	104		-		80-120	-		
Cadmium, Total	107		-		80-120	-		
Chromium, Total	101		-		80-120	-		
Copper, Total	100		-		80-120	-		
Iron, Total	110		-		80-120	-		
Lead, Total	106		-		80-120	-		
Nickel, Total	102		-		80-120	-		
Silver, Total	111		-		80-120	-		
Zinc, Total	99		-		80-120	-		
Low-Level Mercury - Mansfield Lab Associated sample(s): 01-02 Batch: WG1665300-2 SRM Lot Number: HG-LOW								
Mercury, Total	108		-		77-123	-		24

Matrix Spike Analysis **Batch Quality Control**

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 LEACHATE QC Batch ID: WG1660035-3 WG1660035-4 QC Sample: L2235216-01 Client ID: EF2022-												
Arsenic, Total	0.01186	0.12	0.1365	104		0.1356	103		75-125	1		20
Barium, Total	0.3929	2	2.387	100		2.430	102		75-125	2		20
Cadmium, Total	ND	0.053	0.05531	104		0.05544	105		75-125	0		20
Chromium, Total	0.00023J	0.2	0.2008	100		0.1972	99		75-125	2		20
Copper, Total	ND	0.25	0.2514	100		0.2474	99		75-125	2		20
Iron, Total	22.5	1	23.5	100		23.4	90		75-125	0		20
Lead, Total	0.00564	0.53	0.5422	101		0.5491	102		75-125	1		20
Nickel, Total	0.00158J	0.5	0.5013	100		0.5068	101		75-125	1		20
Silver, Total	ND	0.05	0.05363	107		0.05378	108		75-125	0		20
Zinc, Total	0.01181	0.5	0.5003	98		0.4972	97		75-125	1		20

Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1660035-7 WG1660035-8 QC Sample: L2235335-05 Client ID: MS Sample

Arsenic, Total	0.00035J	0.12	0.1262	105		0.1262	105		75-125	0		20
Barium, Total	0.01620	2	2.029	101		2.049	102		75-125	1		20
Cadmium, Total	ND	0.053	0.05435	102		0.05493	104		75-125	1		20
Chromium, Total	0.02460	0.2	0.2208	98		0.2158	96		75-125	2		20
Copper, Total	0.00300	0.25	0.2482	98		0.2482	98		75-125	0		20
Iron, Total	1.39	1	2.66	127	Q	2.38	99		75-125	11		20
Lead, Total	0.00098J	0.53	0.5460	103		0.5420	102		75-125	1		20
Nickel, Total	0.02019	0.5	0.5153	99		0.5006	96		75-125	3		20
Silver, Total	ND	0.05	0.05366	107		0.05245	105		75-125	2		20
Zinc, Total	0.00681J	0.5	0.4937	99		0.4921	98		75-125	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Low-Level Mercury - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1665300-3 WG1665300-4 QC Sample: L2235814-02 Client ID: MS Sample									
Mercury, Total	0.0027	0.005	0.0072	91	0.0072	90	71-125	1	24
Low-Level Mercury - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1665300-5 WG1665300-6 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE									
Mercury, Total	0.0010	0.005	0.0054	88	0.0054	90	71-125	1	24

INORGANICS & MISCELLANEOUS

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

SAMPLE RESULTS

Lab ID: L2235216-01

Date Collected: 06/30/22 09:45

Client ID: EF2022-LEACHATE

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	45.		mg/l	10	NA	2	-	07/06/22 16:02	121,2540D	MD
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	07/11/22 03:10	07/11/22 08:49	1,9010C/9012B	CS
Cyanide, Amenable	ND		mg/l	0.010	0.005	2	07/07/22 13:15	07/07/22 15:48	1,9010C	JO
pH (H)	7.0		SU	-	NA	1	-	07/02/22 10:50	1,9040C	KS
Sulfide	ND		mg/l	0.10	0.10	1	07/07/22 10:10	07/07/22 14:11	121,4500S2-D	CK
BOD, 5 day	14.		mg/l	5.0	NA	2.5	07/02/22 08:20	07/07/22 03:25	121,5210B	JT
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	07/25/22 16:50	07/25/22 20:15	140,1664B	TL
Phenolics, Total	ND		mg/l	0.030	0.006	1	07/13/22 07:50	07/14/22 10:15	4,420.1	KP



Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

SAMPLE RESULTS

Lab ID: L2235216-02

Date Collected: 06/30/22 10:00

Client ID: EF2022-LEACHATE-D

Date Received: 06/30/22

Sample Location: (FER) FERDULA, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	45.		mg/l	6.5	NA	1.3	-	07/06/22 16:02	121,2540D	MD
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/11/22 03:10	07/11/22 08:52	1,9010C/9012B	CS
Cyanide, Amenable	ND		mg/l	0.010	0.005	2	07/07/22 13:15	07/07/22 15:48	1,9010C	JO
pH (H)	6.9		SU	-	NA	1	-	07/02/22 10:50	1,9040C	KS
Sulfide	ND		mg/l	0.10	0.10	1	07/07/22 10:10	07/07/22 14:13	121,4500S2-D	CK
BOD, 5 day	12.		mg/l	5.0	NA	2.5	07/02/22 08:20	07/07/22 03:25	121,5210B	JT
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	07/25/22 16:50	07/25/22 20:15	140,1664B	TL
Phenolics, Total	ND		mg/l	0.030	0.006	1	07/13/22 07:50	07/14/22 10:18	4,420.1	KP



Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1659110-1										
BOD, 5 day	ND		mg/l	2.0	NA	1	07/02/22 08:20	07/07/22 03:25	121,5210B	JT
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1659527-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/06/22 16:02	121,2540D	MD
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1659847-1										
Cyanide, Amenable	ND		mg/l	0.010	0.005	2	07/07/22 13:15	07/07/22 15:48	1,9010C	JO
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1659895-1										
Sulfide	ND		mg/l	0.10	0.10	1	07/07/22 10:10	07/07/22 14:09	121,4500S2-D	CK
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1661036-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/11/22 03:10	07/11/22 08:42	1,9010C/9012B	CS
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1662199-1										
Phenolics, Total	ND		mg/l	0.030	0.006	1	07/13/22 07:50	07/14/22 10:13	4,420.1	KP
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1667151-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	07/25/22 16:50	07/25/22 20:15	140,1664B	TL



Lab Control Sample Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216

Report Date: 07/26/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1658260-3								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1659110-2								
BOD, 5 day	94		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1659527-2								
Solids, Total Suspended	102		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1659847-2								
Cyanide, Amenable	97		-		85-115	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1659895-2								
Sulfide	88		-		75-125	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1661036-2 WG1661036-3								
Cyanide, Total	104		105		85-115	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1662199-2								
Phenolics, Total	93		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control**Project Name:** 9762-7720100C-WH06-507052**Project Number:** LEACHATE SAMPLING 22**Lab Number:** L2235216**Report Date:** 07/26/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1667151-2					
Oil & Grease, Hem-Grav	94	-	78-114	-	18

Matrix Spike Analysis

Batch Quality Control

Project Name: 9762-7720100C-WH06-507052

Lab Number: L2235216

Project Number: LEACHATE SAMPLING 22

Report Date: 07/26/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1659110-4 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
BOD, 5 day	14.	100	120	103		-	-		50-145	-		35
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1659895-4 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
Sulfide	ND	0.43	0.15	35	Q	-	-		70-130	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1661036-4 WG1661036-5 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
Cyanide, Total	0.003J	0.2	0.181	90		0.173	86		80-120	5		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1662199-4 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
Phenolics, Total	ND	0.4	0.32	80		-	-		70-130	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1667151-4 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE												
Oil & Grease, Hem-Grav	ND	38.8	29	74	Q	-	-		78-114	-		18

Lab Duplicate Analysis **Batch Quality Control**

Project Name: 9762-7720100C-WH06-507052

Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216

Report Date: 07/26/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1658260-2 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE						
pH (H)	7.0	6.8	SU	3		5
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1659110-3 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE						
BOD, 5 day	14.	11	mg/l	24		35
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1659527-4 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE						
Solids, Total Suspended	45.	45	mg/l	0		32
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1659847-3 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE						
Cyanide, Amenable	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1659895-3 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE						
Sulfide	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1662199-3 QC Sample: L2235216-01 Client ID: EF2022-LEACHATE						
Phenolics, Total	ND	0.008J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1667151-3 QC Sample: L2235216-02 Client ID: EF2022-LEACHATE-D						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18

Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent
D	Absent
E	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2235216-01A	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01A1	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01A2	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01B	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01B1	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01B2	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01C	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01C1	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01C2	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-01D	Plastic 250ml HNO3 preserved	D	<2	<2	2.4	Y	Absent		BA-6020T(180),FE-6020T(180),NI-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180),AG-6020T(180)
L2235216-01D1	Plastic 250ml HNO3 preserved	C	<2	<2	3.1	Y	Absent		BA-6020T(180),FE-6020T(180),NI-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180),AG-6020T(180)
L2235216-01D2	Plastic 250ml HNO3 preserved	A	<2	<2	2.9	Y	Absent		BA-6020T(180),FE-6020T(180),NI-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),AS-6020T(180),CD-6020T(180),AG-6020T(180)
L2235216-01E	Plastic 250ml NaOH preserved	D	>12	>12	2.4	Y	Absent		TCN-9010(14),ACN-9010(14)
L2235216-01E1	Plastic 250ml NaOH preserved	C	>12	>12	3.1	Y	Absent		TCN-9010(14),ACN-9010(14)

Project Name: 9762-7720100C-WH06-507052
Project Number: LEACHATE SAMPLING 22

Serial_No:07262218:29
Lab Number: L2235216
Report Date: 07/26/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2235216-01E2	Plastic 250ml NaOH preserved	A	>12	>12	2.9	Y	Absent		TCN-9010(14),ACN-9010(14)
L2235216-01F	Plastic 250ml Zn Acetate/NaOH preserved	D	>9	>9	2.4	Y	Absent		SULFIDE-4500(7)
L2235216-01F1	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	3.1	Y	Absent		SULFIDE-4500(7)
L2235216-01F2	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.9	Y	Absent		SULFIDE-4500(7)
L2235216-01G	Plastic 250ml Zn Acetate/NaOH preserved	D	>9	>9	2.4	Y	Absent		SULFIDE-4500(7)
L2235216-01G1	Plastic 250ml Zn Acetate/NaOH preserved	C	>9	>9	3.1	Y	Absent		SULFIDE-4500(7)
L2235216-01G2	Plastic 250ml Zn Acetate/NaOH preserved	A	>9	>9	2.9	Y	Absent		SULFIDE-4500(7)
L2235216-01H	Teflon 250ml HCl preserved	D	<2	<2	2.4	Y	Absent		A2-HG-1631(28)
L2235216-01H1	Teflon 250ml HCl preserved	C	<2	<2	3.1	Y	Absent		A2-HG-1631(28)
L2235216-01H2	Teflon 250ml HCl preserved	A	<2	<2	2.9	Y	Absent		A2-HG-1631(28)
L2235216-01I	Plastic 950ml unpreserved	D	7	7	2.4	Y	Absent		TSS-2540(7)
L2235216-01I1	Plastic 250ml unpreserved	C	7	7	3.1	Y	Absent		PH-9040(1),TSS-2540(7)
L2235216-01I2	Plastic 250ml unpreserved	A	7	7	2.9	Y	Absent		PH-9040(1),TSS-2540(7)
L2235216-01J	Plastic 250ml unpreserved	D	7	7	2.4	Y	Absent		PH-9040(1),BOD-5210(2)
L2235216-01J1	Plastic 250ml unpreserved	C	7	7	3.1	Y	Absent		PH-9040(1),BOD-5210(2),NYTCL-8270-LVI(7)
L2235216-01J2	Plastic 250ml unpreserved	A	7	7	2.9	Y	Absent		PH-9040(1),BOD-5210(2)
L2235216-01K	Amber 250ml unpreserved	D	<2	<2	2.4	Y	Absent		NYTCL-8270-LVI(7)
L2235216-01K1	Amber 250ml unpreserved	C	NA		3.1	Y	Absent		NYTCL-8270-LVI(7)
L2235216-01K2	Amber 250ml unpreserved	A	NA		2.9	Y	Absent		NYTCL-8270-LVI(7)
L2235216-01L	Amber 250ml unpreserved	D	7	7	2.4	Y	Absent		NYTCL-8270-LVI(7)
L2235216-01L1	Amber 250ml unpreserved	C	NA		3.1	Y	Absent		NYTCL-8270-LVI(7)
L2235216-01L2	Amber 250ml unpreserved	A	NA		2.9	Y	Absent		NYTCL-8270-LVI(7)
L2235216-01M	Amber 1000ml HCl preserved	D	NA		2.4	Y	Absent		OG-1664(28)
L2235216-01M1	Amber 1000ml HCl preserved	C	NA		3.1	Y	Absent		OG-1664(28)
L2235216-01M2	Amber 1000ml HCl preserved	A	NA		2.9	Y	Absent		OG-1664(28)
L2235216-01N	Amber 1000ml HCl preserved	D	NA		2.4	Y	Absent		OG-1664(28)
L2235216-01N1	Amber 1000ml HCl preserved	C	NA		3.1	Y	Absent		OG-1664(28)
L2235216-01N2	Amber 1000ml HCl preserved	A	NA		2.9	Y	Absent		OG-1664(28)

Project Name: 9762-7720100C-WH06-507052
Project Number: LEACHATE SAMPLING 22

Serial_No:07262218:29
Lab Number: L2235216
Report Date: 07/26/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2235216-01O	Amber 1000ml H2SO4 preserved	D	<2	<2	2.4	Y	Absent		NY-TPHENOL-420(28)
L2235216-01O1	Amber 1000ml H2SO4 preserved	C	<2	<2	3.1	Y	Absent		NY-TPHENOL-420(28)
L2235216-01O2	Amber 1000ml H2SO4 preserved	A	<2	<2	2.9	Y	Absent		NY-TPHENOL-420(28)
L2235216-02A	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-02B	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-02C	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-02D	Plastic 250ml HNO3 preserved	B	<2	<2	3.9	Y	Absent		BA-6020T(180),FE-6020T(180),NI-6020T(180),CR-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),AS-6020T(180),AG-6020T(180),CD-6020T(180)
L2235216-02E	Plastic 250ml NaOH preserved	B	>12	>12	3.9	Y	Absent		TCN-9010(14),ACN-9010(14)
L2235216-02F	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	3.9	Y	Absent		SULFIDE-4500(7)
L2235216-02G	Plastic 250ml Zn Acetate/NaOH preserved	B	>9	>9	3.9	Y	Absent		SULFIDE-4500(7)
L2235216-02H	Plastic 250ml unpreserved	B	7	7	3.9	Y	Absent		A2-HG-1631(28)
L2235216-02I	Plastic 950ml unpreserved	B	7	7	3.9	Y	Absent		TSS-2540(7)
L2235216-02J	Plastic 950ml unpreserved	B	7	7	3.9	Y	Absent		PH-9040(1),BOD-5210(2)
L2235216-02K	Amber 250ml unpreserved	B	7	7	3.9	Y	Absent		NYTCL-8270-LVI(7)
L2235216-02L	Amber 250ml unpreserved	B	<2	<2	3.9	Y	Absent		NYTCL-8270-LVI(7)
L2235216-02M	Amber 1000ml HCl preserved	B	NA		3.9	Y	Absent		OG-1664(28)
L2235216-02N	Amber 1000ml HCl preserved	B	NA		3.9	Y	Absent		OG-1664(28)
L2235216-02O	Amber 1000ml H2SO4 preserved	B	<2	<2	3.9	Y	Absent		NY-TPHENOL-420(28)
L2235216-03A	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)
L2235216-03B	Vial HCl preserved	E	NA		4.9	Y	Absent		NYTCL-8260(14)

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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Project Name: 9762-7720100C-WH06-507052**Lab Number:** L2235216**Project Number:** LEACHATE SAMPLING 22**Report Date:** 07/26/22**Footnotes**

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

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Identified Compounds (TICs).

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

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Project Number: LEACHATE SAMPLING 22

Lab Number: L2235216
Report Date: 07/26/22

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 82 Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry. USEPA Office of Water, EPA Method 1631 Revision E, EPA-821-R-02-019, August 2002.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 140 Method 1664, Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625/625.1:** alpha-Terpineol**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.****EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 2		Date Rec'd in Lab 7/1/22		ALPHA Job # 122 35216											
Client Information Client: Parsons Address: 301 Plainfield Rd, 30350 Spring House, NY 13312 Phone: 315-522-9673 Fax: Email: schwarzj@parsons.com		Project Information Project Name: Fordale Landfill - biochute - 2022 Project Location: Frankfort, NY Project # 432502 (Use Project name as Project #) ☐ Project Manager: Ed Ashton ALPHAQuote #: Turn-Around Time Standard ☐ Due Date: Rush (only if pre approved) ☐ # of Days:		Deliverables ☐ ASP-A ☐ ASP-B ☐ EQuIS (1 File) ☐ EQuIS (4 File) ☐ Other		Billing Information ☐ Same as Client Info PO #		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge											
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: contact shawn - no location of AECOM at 610-733-8027 w/ any questions. Please specify Metals or TAL.		ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)		Sample Specific Comments		Total Bottles											
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000	SP-1000
35216 -01	EF 2022 - biochute	6-30-22	0945	water	EDH/KRM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-02	EF 2022 - biochute - 11	6-30-22	1000	water	" "	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-01	EF 2022 - biochute - M5	6-30-22	1045	water	" "	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-01	EF 2022 - biochute (FBI)																		
-01	EF 2022 - biochute - M50	6-30-22	1100	water	" "	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
-03	Top Blank	-	-	water	-														
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		A V P P A P P P A B A A D E E K/E		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)									
Relinquished By: Ed Ashton (Parsons) Secure Storage Chi Stahl		Date/Time 6-30-22/1600 06/30/22 1630 06/30/22 1630		Received By: Secure Storage Chi Stahl		Date/Time 06/30/22 1600 06/30/22 1630 7/1/22 0100													

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