

November 28, 2022

Alexis McKinnon Solid Waste Specialist Kitsap County Public Works Solid Waste Division 614 Division Street, MS-27 Port Orchard, WA 98366

Re: Third Quarter 2022 Environmental Monitoring Report Hansville Landfill, Kitsap County, Washington

Project No. 160423-005-05.1

Dear Alexis:

This quarterly report summarizes the results of environmental monitoring conducted at the Hansville Landfill (Site) during the third quarter of 2022, and was prepared by Aspect Consulting, LLC (Aspect) on behalf of Kitsap County Public Works Solid Waste Division (County) and Waste Management of Washington (WMW). Ongoing environmental monitoring at the Site supports the selected remedy of natural attenuation of groundwater with enhanced monitoring and institutional controls that was established under Amended Consent Decree No. 95-2-03005-1 (August 5, 2011).

The data sets presented in this letter report were collected in accordance with the Site Cleanup Action Plan (CAP; Ecology, 2011) and the "Compliance Monitoring Plan with Sampling & Analysis Plan and Quality Assurance Plan" (SCS, 2011; herein referred as Compliance Monitoring Plan), except where otherwise noted.

Conditions monitored at the Site during the third quarter of 2022 were consistent with historical trends showing improvements in protection of human health and the environment. This report is organized consistent with quarterly reporting topics listed in the Compliance Monitoring Plan, and includes:

- Site monitoring and maintenance activities, along with a discussion of any deviations from the CAP, or required tasks not otherwise documented in project plans
- · Landfill gas monitoring results and gas collection system adjustments
- Determination of groundwater flow direction and gradient, including a groundwater surface elevation contour map
- Water quality sampling results, including tabulated field data and laboratory analyses

Also included are time-series plots and projected trends in groundwater concentrations for selected analytes at selected monitoring locations. Finally, this report discusses geochemical parameters as indicators of landfill effects on groundwater and surface water.

Site Activities – Third Quarter 2022

Site activities during the reporting period included environmental monitoring of landfill gas, groundwater, and surface water. Documentation of the quarterly activities is presented in the following attachments:

- Attachment A presents landfill gas monitoring data.
- Attachment B presents groundwater elevations, a groundwater contour map, and groundwater and surface water quality analytical results.
- Attachment C presents summary statistics, time-series graphs, and graphs of projected groundwater concentrations for arsenic and vinyl chloride at selected monitoring wells.
- Attachment D presents supporting field records, laboratory data reports, and chain-of-custody documentation.

A chronology of on-Site monitoring activities performed during the third quarter 2022 is provided below:

- On July 20, 2022, Aspect completed groundwater and surface water sampling in accordance with the Compliance Monitoring Plan. Aspect conducted monthly performance monitoring of the blower system and condensate management system.
- On August 18, 2022, Aspect conducted monthly performance monitoring of the blower system and condensate management system.
- On September 15 and 16, 2022, Aspect conducted landfill gas monitoring in accordance with the Compliance Monitoring Plan and inspected the blower system for proper operation. Aspect monitored landfill gas concentrations at the blower, extraction wells, and at compliance monitoring probes. Extraction well flow rates were adjusted to ensure capture of landfill gasses, as necessary.
- On October 12, 2022, Kitsap County crews pumped out the condensate tank; Aspect was not on the Site to observe the work.

Deviations from the Compliance Monitoring Plan

There were no deviations from the Compliance Monitoring Plan during the third quarter 2022 environmental monitoring.

Summary of Landfill Gas Conditions

The following sections provide a discussion of landfill gas monitoring and gas extraction system performance. The layout of the landfill gas extraction system is shown on Figure A-1.

Landfill Gas Monitoring

Aspect monitored landfill gas concentrations at the blower on July 20 and August 18, 2022. Aspect monitored landfill gas concentrations at the blower, extraction wells, and compliance monitoring probes on September 15 and 16, 2022.

Landfill gas concentrations were measured with a calibrated GEM-5000 multi-gas meter. Landfill gas monitoring parameters collected for the compliance monitoring event are summarized in Table A-1, and listed below:

- Landfill gas composition measurements included methane (CH₄), carbon dioxide (CO₂), oxygen (O₂), and balance gas (Balance) concentrations.
- Collection system pressure measurements included the static pressure measured before and after any valve adjustments or purging, reported as "initial" and "adjusted," respectively.
- Collection system flow-rate measurements were obtained at all locations via orifice plates. The differential pressure and gas temperature were measured to calculate flow. Table A-1 presents flow rates measured after valve adjustments, reported as "adjusted."

Landfill Gas System Performance

During the compliance monitoring event on September 15 and 16, 2022, observed conditions remained within the normal range. Methane and carbon dioxide concentrations at the blower inlet were approximately 3.5 percent by volume and 15.6 percent by volume, respectively. The oxygen concentration was approximately 2.2 percent by volume. Flow rates were approximately 78.7 standard cubic feet per minute (scfm) during the third quarter. Wellfield optimization will continue to focus on maximizing methane and carbon dioxide collection rates.

During the September 2022 event, the 2,000-gallon condensate storage tank contained approximately 775 gallons. On October 13, 2022, Aspect was notified that on October 12, 2022, a crew from Kitsap County Public Works removed condensate from the 2,000-gallon condensate storage tank inside the flare compound. Approximately 1,300 gallons were removed from the condensate storage tank. The condensate recovery system operated successfully throughout the third quarter 2022 and showed lower volume recovery compared to the second quarter, consistent with historical seasonal trends.

Explosive Gas Control

Methane was not detected in any of the compliance gas probes during the compliance monitoring event on September 15 and 16, 2022. Locations of on-property compliance probes GP-1, GP-2S, GP-2M, GP-2D, GP-3, GP-4, GP-5, and GP-6 are shown on Figure A-1, and the location of off-property compliance probe GP-7 is shown on Figure B-1. Carbon dioxide concentrations ranged from 0.1 to 3.4 percent by volume, reflecting natural conditions.

Summary of Groundwater and Surface Water Conditions

This section addresses groundwater and surface water conditions based on the monitoring event on July 20, 2022. Samples were collected from six groundwater monitoring wells and from four surface water monitoring locations (see Figure B-1) for laboratory analysis.

Groundwater Flow

Groundwater flow conditions during the third quarter of 2022 were consistent with those observed during previous monitoring events. Groundwater surface elevations were calculated using water

levels measured July 20, 2022 (see Table B-1). Groundwater elevations ranged from 237.8 feet North American Vertical Datum of 1988 (NAVD88) in MW-12I to 266.4 feet NAVD88 in the upgradient, background monitoring well MW-5. The direction of groundwater flow at the Site was generally west across the landfill then shifts southwest with increased distance from the landfill; this is consistent with historical observations. Groundwater gradients ranged from 0.0069 feet over feet (feet/feet) in the upgradient areas at the landfill, to 0.013 feet/feet farther downgradient, with the gradient steepening near the groundwater discharge area (Figure B-1).

Groundwater and Surface Water Quality

Groundwater quality results from the third quarter of 2022 are presented in Table B-2, including field parameters, conventional parameters, dissolved metals, and volatile organic compounds. During the reporting period, dissolved arsenic concentrations in groundwater were below the Sitespecific cleanup level of 0.005 milligrams per liter (mg/L) at all monitoring wells except MW-14 (0.0134 mg/L) and MW-13D (0.005 mg/L). Dissolved manganese concentrations were below the Site-specific cleanup level of 2.24 mg/L. Vinyl chloride concentrations in groundwater were below the Site-specific groundwater cleanup level of 0.025 micrograms per liter (μ g/L) at all monitoring wells except MW-6 (0.042 μ g/L), MW-12I (0.045 μ g/L), and MW-14 (0.033 μ g/L); consistent with historical results.

Surface water quality results from the third quarter 2022 are presented in Table B-3, including field parameters, conventional parameters, dissolved metals, and volatile organic compounds. During the reporting period, dissolved arsenic concentrations in surface water were below the Site-specific cleanup level of 0.005~mg/L at all monitoring locations. Dissolved manganese concentrations in surface water were below the Site-specific cleanup level of 2.24~mg/L. Vinyl chloride concentrations in surface water were not detected at a reporting limit below the Site-specific cleanup level of $0.025~\mu\text{g/L}$.

Time-Series Plots and Projected Trends

Groundwater sampling results since 2007 are shown on time-series plots for dissolved arsenic (Figure C-1) and vinyl chloride (Figure C-2) at all compliance monitoring locations. Figure C-1 shows that dissolved arsenic concentrations in groundwater have been less than the cleanup level of 0.005 mg/L at MW-5 (background well), MW-6, MW-7, and MW-12I. Historically, dissolved arsenic concentrations at MW-13D were below the cleanup level and appear to have stabilized near the cleanup level since about 2019. Dissolved arsenic concentrations at MW-14 remain consistent with historical decreasing trends.

Figure C-2 shows vinyl chloride concentrations in groundwater have been less than the cleanup level of $0.025~\mu g/L$ at MW-5 (background well), MW-7, and MW-13D. The concentrations of vinyl chloride at MW-6, MW-12I, and MW-14 have historically exceeded the Site-specific cleanup level and have been decreasing over time. The vinyl chloride concentration at MW-6 and MW-12I increased slightly during the third quarter of 2022 compared with the second quarter of 2022 but is within a range that is consistent with an overall decreasing trend.

Figure C-3 shows time-series plots of historical and 10-year projected groundwater concentrations for MW-6 (vinyl chloride), MW-12I (vinyl chloride), MW-14 (vinyl chloride and arsenic), and MW-13D (arsenic). The projected restoration time frames for vinyl chloride concentrations range from approximately 1 to 10 years. In the event that the slowly increasing trend for dissolved arsenic

at MW-13D continues, concentrations may regularly exceed the cleanup level but will remain below the Puget Sound regional background of 8 μ g/L (Ecology, 2016) for more than 10 years. The projected restoration timeframe for arsenic in groundwater at MW-14 is more than 10 years. Maintaining landfill gas collection performance may achieve groundwater cleanup levels within a shorter time frame than shown on Figure C-3.

Statistical Evaluation of Groundwater Trends

Statistically significant decreasing trends in dissolved arsenic and/or vinyl chloride concentrations were identified at monitoring wells MW-6, MW-12I, and MW-14. We attribute the decreasing trends to the cleanup actions at the Site, and project concentrations will continue to decrease to Site-specific cleanup levels as described above and shown on Figure C-3.

A statistically significant increasing trend in dissolved arsenic concentrations was identified at monitoring well MW-13D. Dissolved arsenic concentrations exceeded the Site-specific cleanup levels during this monitoring period and remain below the regional natural background value provided by Ecology (Ecology, 2016; Ecology, 2022) as shown on Figure C-3. Statistical trend analysis for dissolved arsenic concentrations in MW-13D has been conducted since the 2019 Annual Environmental Monitoring Report (Aspect, 2020). As previously noted in the 2019 Report, based on the data available it is likely that arsenic concentrations since 2007 reflect natural variations or off-Site influences, as opposed to effects from the Hansville Landfill Site. Dissolved arsenic concentrations in MW-13D and other locations continue to be closely monitored and evaluated.

Table C-1 provides results of statistical analysis for arsenic and vinyl chloride for monitoring wells MW-6, MW-12I, MW-13D, and MW-14. The trends are defined as "statistically significant" because the magnitude of the Mann-Kendall Test Value (Z) was greater than the Critical Value (which is based on the number of data points and alpha). A negative Sen's Slope indicates a decreasing trend in concentrations while a positive Sen's Slope indicates an increasing trend. ¹ These statistics confirm what is visually apparent on Figure C-3, showing historical groundwater concentrations.

The statistical analysis of groundwater data was performed in accordance with the Compliance Monitoring Plan for historical data collected since January 23, 2007. The program Sanitas WQStat (ver. 9.0.34) was used to evaluate the Mann-Kendall Test and Sen's Slope. Mann-Kendall testing was performed to assess whether there were statistically significant trends in groundwater concentrations using the two-tailed test (alpha = 0.05). Mann-Kendall results are reported as an approximated normal distribution Test Value "Z" (where the number of data points was greater than 40). Sen's Slope analysis was performed to identify the trend direction for statistically significant trends and reflects the median of the slopes of all pairs of historical data.

Geochemical Parameters

Geochemical parameters in groundwater and surface water serve as indicators of landfill effects and can distinguish leachate impacts from gas-to-groundwater impacts. As shown in Tables B-2 and

 $^{^1}$ Sen's Slope values reflect the median of the slopes of historical data pairs, and were provided in units of $\mu g/L$ per day in reports by SCS through 2016. Starting in 2017, Sen's Slope values will be provided in units of $\mu g/L$ per year, to support interpretation. For comparison, Table C-1 provides Sen's Slope values for both units.

B-3, geochemical parameters collected at the Site include field parameters (dissolved oxygen, pH, Redox [reduction-oxidation potential], specific conductivity, and temperature), alkalinity/carbonate/bicarbonate, chloride, nitrate/nitrite/ammonia, sulfate, and total organic carbon.

Based on low concentrations of geochemical parameters identified as leachate indicators (such as chloride, sulfate, alkalinity, and bicarbonate) across the Site, there appears to be little if any leachate effect on groundwater and surface water quality. However, the downgradient monitoring wells show lower dissolved oxygen concentrations than the upgradient well (MW-5), which is likely caused by landfill gas coming in contact with groundwater directly beneath the landfill. Increasing the rate of landfill gas collection may prevent geochemically mediated effects on groundwater.

References

- Aspect Consulting, LLC, 2020, 2019 Annual Environmental Monitoring Report, Hansville Landfill, Kitsap County, Washington, February 28, 2020.
- SCS Engineers (SCS), 2011, Compliance Monitoring Plan with Sampling & Analysis Plan and Quality Assurance Plan Remedial Action at the Hansville Landfill, September 15, 2011.
- Washington State Department of Ecology (Ecology), 2011, Cleanup Action Plan Hansville Landfill, Kitsap County, Washington, Ecology Facility Site Identification Number: 2605, June 2011.
- Washington State Department of Ecology (Ecology), 2016, Natural Background Groundwater Arsenic Concentrations in Washington State, Ecology Publication No. 14-09-044, March 2016.
- Washington State Department of Ecology (Ecology), 2022, Natural Background Groundwater Arsenic Concentrations in Washington State, Ecology Publication No. 14-09-044, Draft for Public Comment published July 2021; Revised January 2022.

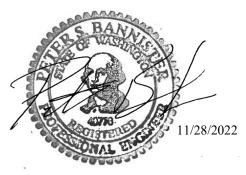
Limitations

Work for this project was performed for Kitsap County Public Works (Client), and this letter was prepared in accordance with generally accepted professional practices for the nature and conditions of work completed in the same or similar localities, at the time the work was performed. This letter does not represent a legal opinion. No other warranty, expressed or implied, is made.

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Sincerely,

Aspect consulting, LLC



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Ashey W. Provow

Ashley Provow, GIT Staff Geologist aprovow@aspectconsulting.com

Attachments: A – Landfill Gas Data

B – Water Quality Results

C – Groundwater Statistics and Time-Series Plots

D – Field Forms and Laboratory Reports

cc: Phil Perley, Waste Management of Washington

Steve Brown, Kitsap Public Health District

Cris Matthews, Washington State Department of Ecology

Joshua Carter, Port Gamble S'Klallam Tribe

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ATTACHMENT A Landfill Gas Data

Table A-3. Landfill Gas Data, Third Quarter, 2022

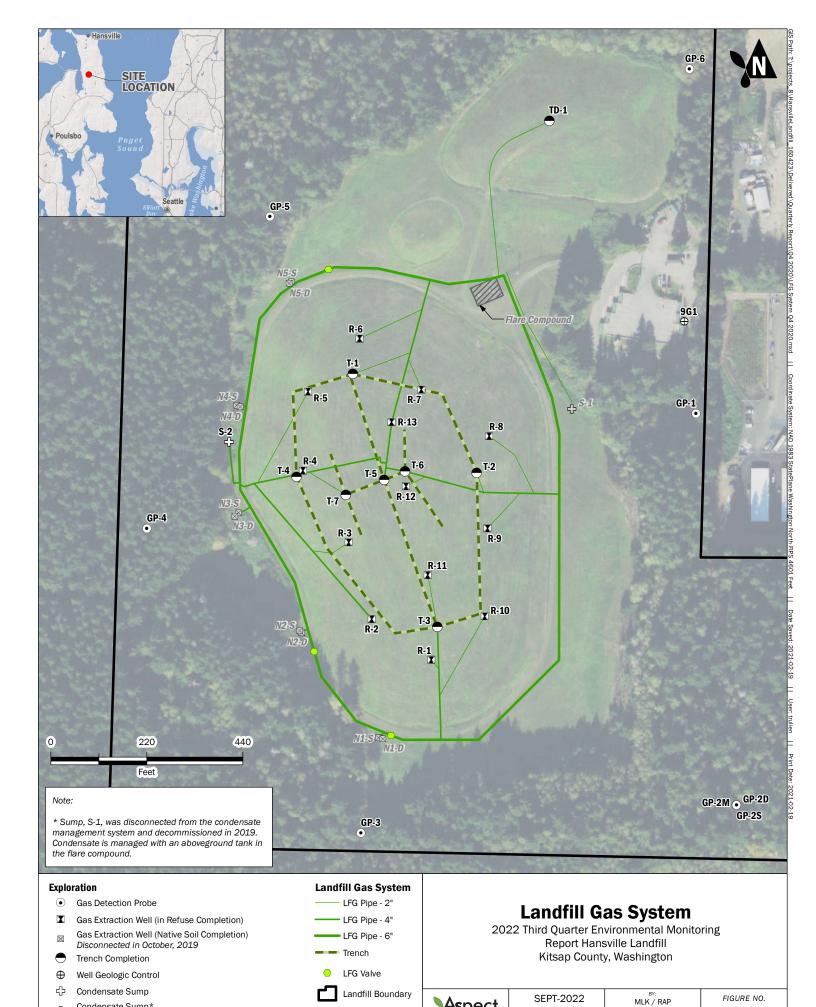
Project No. 160423, Hansville Landfill, Hansville, WA

			Methane	Carbon Dioxide	Oxygen	Hydrogen Sulfide	Balance	Static F	Pressure	Gas Ten	nperature	Flov	v Rate
			CH₄	CO ₂	O ₂	H₂S	Bal	(inche	es H₂O)	(degr	ees F)	(SC	CFM)
Location	Device ID	Date/Time	(% by vol)	(% by vol)	(% by vol)	(% by vol)	(% by vol)	Initial	Adjusted	Initial	Adjusted	Initial	Adjusted
Blower Inlet	HANSBLIN	9/15/22 15:15	3.5	15.6	2.2	1	78.7	-4.97	-5.35	69.1	69.2	72.6	94.5
Blower Outlet	HANSBLOT	9/15/22 15:19	4	16.1	1.8	5	78.1	N/A	N/A	N/A	N/A	N/A	N/A
Extraction Well 001	HANSR001	9/16/22 10:41	6.5	14.9	0	3	78.6	-0.5	-0.5	67.9	68.6	0.3	0.3
Extraction Well 002	HANSR002	9/16/22 10:54	2	14.8	4	1	79.2	N/A	N/A	N/A	N/A	N/A	N/A
Extraction Well 003	HANSR003	9/16/22 12:40	6.1	15	0	0	78.9	-1.33	-1.33	66.6	67.5	3.3	3.1
Extraction Well 004	HANSR004	9/16/22 11:55	3	17.4	0.6	0	79	-1.53	-1.52	66.1	69.1	2.2	2.7
Extraction Well 005	HANSR005	9/16/22 12:09	4.4	18.9	0.2	0	76.5	-1.04	-1.03	68.8	73.2	3	2.8
Extraction Well 006	HANSR006	9/16/22 12:23	2.6	12.6	8	0	76.8	-1.59	-1.59	88	87.1	2.9	3.3
Extraction Well 007	HANSR007	9/16/22 12:30	0.2	13.8	4.4	0	81.6	-1.19	-1.17	67.5	68.6	2.6	2.7
Extraction Well 008	HANSR008	9/15/22 15:35	4.6	18.6	0	3	76.8	-0.73	-0.74	68.1	68.1	1.4	1.7
Extraction Well 009	HANSR009	9/15/22 15:52	1.4	14.3	3.1	0	81.2	N/A	N/A	N/A	N/A	N/A	N/A
Extraction Well 010	HANSR010	9/16/22 10:32	5.5	11.2	3.8	3	79.5	-0.73	-0.73	76.6	76.8	0.9	0.7
Extraction Well 011	HANSR011	9/16/22 11:08	3	9.5	0	0	87.5	-0.59	-0.59	67	67	0.3	0.3
Extraction Well 012	HANSR012	9/16/22 11:17	8.6	5.4	0	0	86	-1	-1	66.6	66.8	1.9	0.9
Extraction Well 013	HANSR013	9/16/22 12:34	3.8	14.9	1.3	0	80	N/A	N/A	N/A	N/A	N/A	N/A
Trench Collector TD-1	HANSTD01	9/15/22 14:49	1.8	21.7	0	43	76.5	-0.1	-0.11	0	0	15	15
Trench Collector TR-1	HANSTR01	9/16/22 12:17	0.2	15.7	3.3	0	80.8	-0.85	-0.86	67.1	70.4	2.8	2.8
Trench Collector TR-2	HANSTR02	9/15/22 15:47	7.1	18.7	0	0	74.2	N/A	N/A	N/A	N/A	N/A	N/A
Trench Collector TR-3	HANSTR03	9/16/22 10:47	8.1	19.7	0	1	72.2	N/A	N/A	N/A	N/A	N/A	N/A
Trench Collector TR-4	HANSTR04	9/16/22 11:49	3	17.5	0.5	0	79	-1.53	-1.53	71	72	2.7	2.4
Trench Collector TR-5	HANSTR05	9/16/22 11:28	4.4	18.8	0.7	0	76.1	N/A	N/A	N/A	N/A	N/A	N/A
Trench Collector TR-6	HANSTR06	9/16/22 11:22	8.4	18.6	0.3	0	72.7	N/A	N/A	N/A	N/A	N/A	N/A
Trench Collector TR-7	HANSTR07	9/16/22 11:42	7.1	17.3	0.7	0	74.9	-0.87	-0.88	65.2	65.7	2.1	2.9
Gas Probe 1	HANSGP01	9/15/22 10:45	0	0.5	20.8	1	78.2	0.01	N/A	N/A	N/A	N/A	N/A
Gas Probe 2 Shallow	HANSGP2S	9/15/22 10:05	0	0.1	21.1	1	78.2	0.03	N/A	N/A	N/A	N/A	N/A
Gas Probe 2 Middle	HANSGP2M	9/15/22 9:45	0	0.9	19.5	1	77.9	-0.02	N/A	N/A	N/A	N/A	N/A
Gas Probe 2 Deep	HANSGP2D	9/15/22 9:53	0	1	18.7	1	79.5	0	N/A	N/A	N/A	N/A	N/A
Gas Probe 3	HANSGP03	9/15/22 11:05	0	0.8	20.5	1	80.3	0.04	N/A	N/A	N/A	N/A	N/A
Gas Probe 4	HANSGP04	9/15/22 12:08	0	1	20.1	0	78.5	0.01	N/A	N/A	N/A	N/A	N/A
Gas Probe 5	HANSGP05	9/15/22 13:41	0	0.1	21	0	79.9	0.03	N/A	N/A	N/A	N/A	N/A
Gas Probe 6	HANSGP06	9/15/22 14:04	0	2	19.2	1	79	0.01	N/A	N/A	N/A	N/A	N/A
Gas Probe 7	HANSGP07	9/16/22 9:50	0	3.4	18.3	1	79.8	0	N/A	N/A	N/A	N/A	N/A

Notes:

Flow rates measured using orifice plates N/A = indicates parameter not measured inches H_2O = inches water column degrees F = degrees Fahrenheit SCFM = standard cubic feet per minute

(--) = indicates location was not monitored and is to be decommissioned due to little to no landfill gas collection



Aspect

160423

A-1

Decomissioned in 2019 Basemap Layer Credits || Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community Copyright (C) 2020 - Kitsap County, HxGN Content Program Copyright:(c) 2014 Esri

Condensate Sump*

ATTACHMENT B Water Quality Results

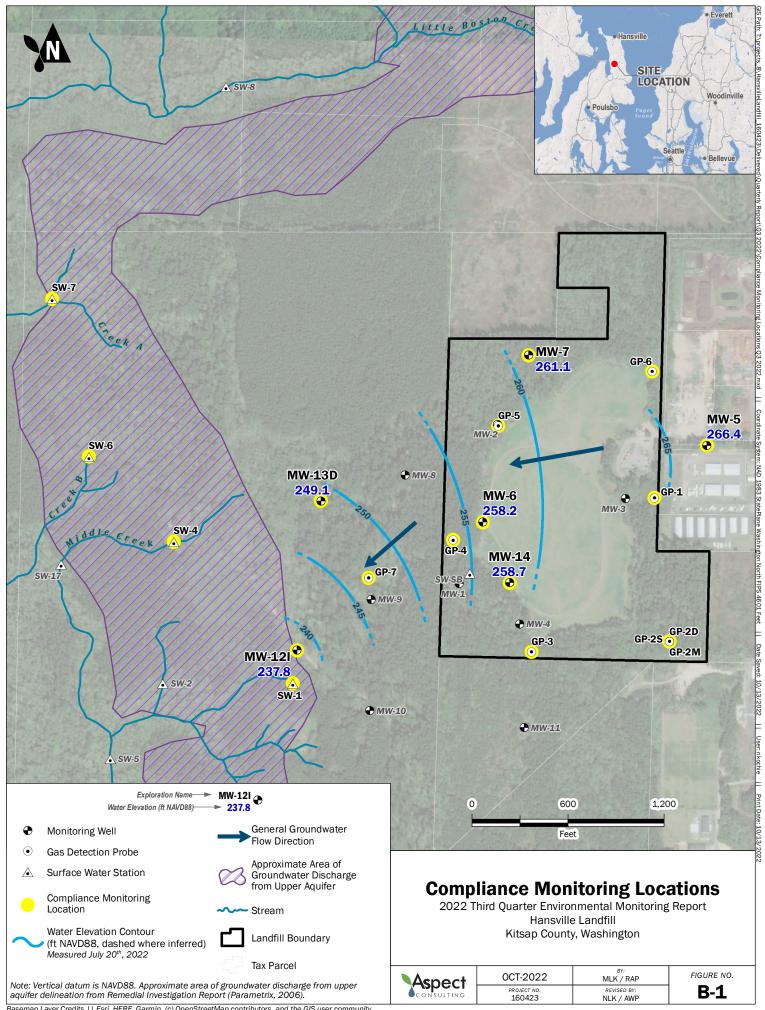


Table B-1. Water Level Elevations

Project No. 160423, Hansville Landfill, Hansville, WA

	Ground Elevation	Top of Casing Elevation	Screen Elevation (ft NAVD88)		Depth to Water	Water Level Elevation
Well	(ft NAVD88)	(ft NAVD88)	Тор	Bottom	(ft)	(ft NAVD88)
MW-5	363.7	366.9	244	234	100.52	266.4
MW-6	332.0	332.7	260	245	74.47	258.2
MW-7	344.3	346.0	259	244	84.89	261.1
MW-12I	245.6	248.1	217	207	10.28	237.8
MW-13D	258.1	260.4	205	195	11.34	249.1
MW-14	338.6	341.1	262	247	82.45	258.7

Notes:

Depths to water collected July 20, 2022.

Elevations relative to North American Vertical Datum of 1988 (NAVD88).

ft = feet

Table B-2. Groundwater Quality Results

Project No. 160423, Hansville Landfill, Hansville Washington

		Location	MW-5	MW-6	MW-7	MW-12I	MW-13D	MW-14
			07/20/2022	07/20/2022	07/20/2022	07/20/2022	07/20/2022	07/20/2022
		Site Cleanup						
Parameter	Units	Level						
Field Parameters								
Dissolved Oxygen	mg/L		7.41	0.43	0.58	0.43	0.44	0.23
pH	pH units		7.16	6.94	6.52	7.03	7.38	7.44
Redox	mV		38.5	68.7	48.9	59.0	59.8	43.5
Specific Conductivity	uS/cm		111.0	225.6	185.7	96.1	115.0	113.7
Temperature	deg C		13.3	12.9	11.5	10.9	12.1	12.9
Turbidity	NTU		24.7	1.58	2.47	0.17	3.96	1.07
Conventionals								
Alkalinity	mg/L		70	130	160	70	80	85
Ammonia (as N)	mg/L		< 0.03 U	0.052				
Bicarbonate	mg/L		70	130	160	70	80	85
Carbonate	mg/L		< 10 U					
Chloride	mg/L		< 3 U	7.3	< 3 U	4.6	5.5	3.5 J
Nitrate (as N)	mg/L		2.6	6	0.386	< 0.1 U	0.149	< 0.1 U
Nitrite (as N)	mg/L		< 0.1 U	0.27	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Orthophosphate (as P)	mg/L		< 0.1 U	< 0.1 U	< 0.1 UJ	< 0.1 U	< 0.1 U	< 0.1 U
Sulfate	mg/L		8.3 J	25	< 5 U	6.8	17	7 J
Total Organic Carbon	mg/L		< 1 U	1	1.4	2	< 1 U	1.7
Dissolved Metals								
Arsenic	ug/L	5.0	1.68	1.63	1.03	2.25	5	13.4
Manganese	ug/L	2240	1.9	360	1.5	30	5.4	910
Volatile Organic Compo	unds (VOC	Cs)						
Vinyl Chloride	ug/L	0.025	< 0.02 U	0.042	< 0.02 U	0.045	< 0.02 U	0.033

Notes:

Bold text = Analyte was detected

Shaded Cell = Result exceeded Site Cleanup level
U = Not detected at or above the Reporting Limit shown

mg/L = milligram per liter

ug/L = microgram per liter

J = Detected at a concentration less than the Reporting Limit, the value is an estimate

mV = millivolts

UJ = Non-detect, the value is an estimate

uS/cm = microSiemens per centimeter

deg C = degrees Celsius

NTU = Nephelometric Turbidity Units

Table B-3. Surface Water Quality Results

Project No. 160423, Hansville Landfill, Hansville Washington

		Location	SW-1	SW-4	SW-6	SW-7
			07/20/2022	07/20/2022	07/20/2022	07/20/2022
		Site Cleanup				
Parameter	Units	Level				
Field Parameters						
Dissolved Oxygen	mg/L		8.32	8.77	8.75	8.95
pH	pH units		7.28	7.68	7.72	7.72
Redox	mV		40.9	56.6	43.0	43.0
Specific Conductance	uS/cm		112.8	110.8	97.6	97.6
Temperature	deg C		12.8	18.5	15.5	15.5
Turbidity	NTU		11.8	10.4	81.4	10
Conventionals						
Alkalinity	mg/L		69	170	71	83
Ammonia (as N)	mg/L		< 0.03 U	< 0.03 U	< 0.03 U	< 0.03 U
Bicarbonate	mg/L		69	170	71	83
Carbonate	mg/L		< 10 U	< 10 U	< 10 U	< 10 U
Chloride	mg/L		5.2	14	3.8	3.7
Nitrate (as N)	mg/L		2.6	1.26	0.747	1.06
Nitrite (as N)	mg/L		< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Orthophosphate (as P)	mg/L		< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U
Sulfate	mg/L		9.3	25	5.4	8
Total Organic Carbon	mg/L		4.4	4	10	7.1
Dissolved Metals						
Arsenic	ug/L	5.0	0.773	1.67	3.88	2.15
Manganese	ug/L	2240	1.2	33	53	50
Volatile Organic Compou	ınds (VOC	Cs)				
Vinyl Chloride	ug/L	0.025	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U

Notes:

Bold text = Analyte was detected
Shaded Cell = Result exceeded Site Cleanup level
U = Not detected at or above the Reporting Limit shown
mg/L = milligram per liter
mg/L = milligram per liter

mV = millivolts
uS/cm = microSiemens per centimeter
deg C = degrees Celsius
NTU = Nephelometric Turbidity Units
ug/L = microgram per liter

ATTACHMENT C

Groundwater Statistics and Time-Series Plots

Table C-1. Statistical Analysis

Project 160423, Hansville Landfill, Hansville, WA

Dissolved Arsenic Statistical Results

			Mann-Kei	Sen's Slope			
Well	Statistical Trend ¹	Test Value, Z	Critical Value	Number of data points, n	Statistical Significance	(ug/L per day)	(ug/L per year)
MW-5	3						
MW-6							
MW-7							
MW-12I							
MW-13D	Increasing	8.0	1.96	62	Yes	5.2E-04	0.188
MW-14	Decreasing	-7.9	-1.96	62	Yes	-2.8E-03	-1.024

Vinyl Chloride Statistical Results

-			Mann-Kei	ndall Test ²		Sen's Slope			
Well	Statistical Trend ¹	Test Value, Z	Critical Value	Number of data points, n	Statistical Significance	(ug/L per day)	(ug/L per year)		
MW-5	3								
MW-6	Decreasing	-8.3	-1.96	63	Yes	-6.3E-05	-0.023		
MW-7									
MW-12I	Decreasing	-7.6	-1.96	63	Yes	-7.3E-05	-0.027		
MW-13D									
MW-14	Decreasing	-9.0	-1.96	63	Yes	-8.6E-05	-0.031		

Notes:

- 1 The Statistical Trend indicates:
 - "Non-significant" if the magnitude of the Test Value is less than the Critical Value,
 - "Increasing" if the magnitude of the Test Value is greater than the Critical Value and the Sen's Slope is positive, or
 - "Decreasing" if the magnitude of the Test Value is greater than the Critical Value and the Sen's Slope is negative.
- 2 Mann-Kendall tests were performed with alpha = 0.05 (95% confidence level).
 - For N>40, Mann-Kendall uses an approximation of a normal distribution, represented by Test Value Z.
- 3 "--" Indicates statistical analysis not conducted.
 - ug/L micrograms per liter
- 4 Data range is from 2nd quarter 2006 through 3rd quarter 2022

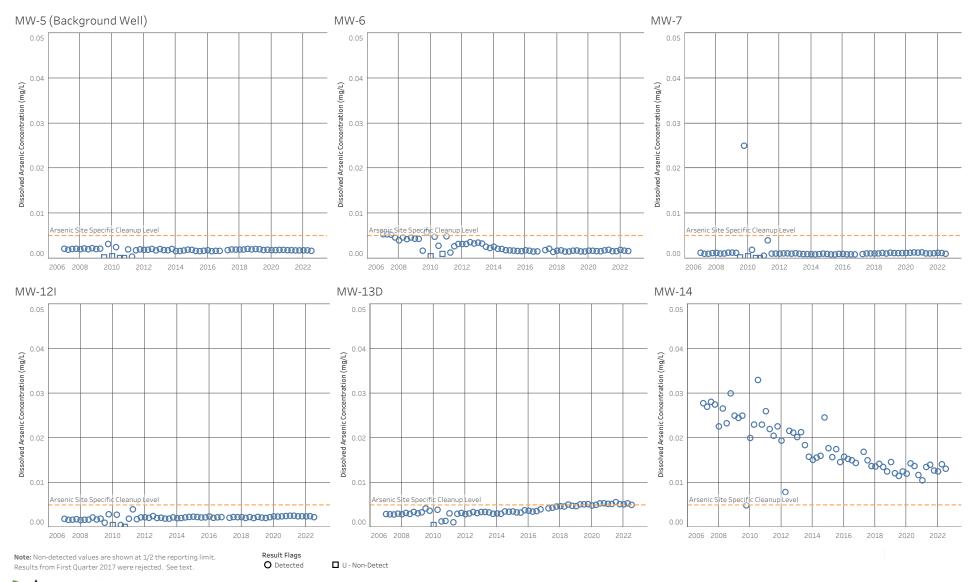




Figure C-1 - 2022 Third Quarter Dissolved Arsenic Sampling Results
2022 Third Quarter Environmental Monitoring Report
Hansville Landfill
Kitsap County, WA

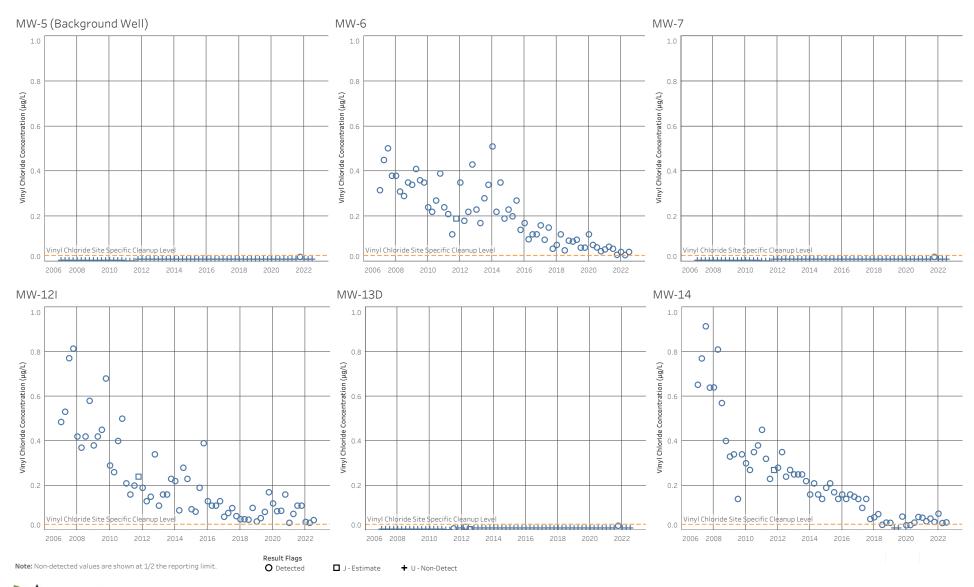




Figure C-2 - 2022 Third Quarter Vinyl Chloride Sampling Results
2022 Third Quarter Environmental Monitoring Report
Hansville Landfill
Kitsap County, WA

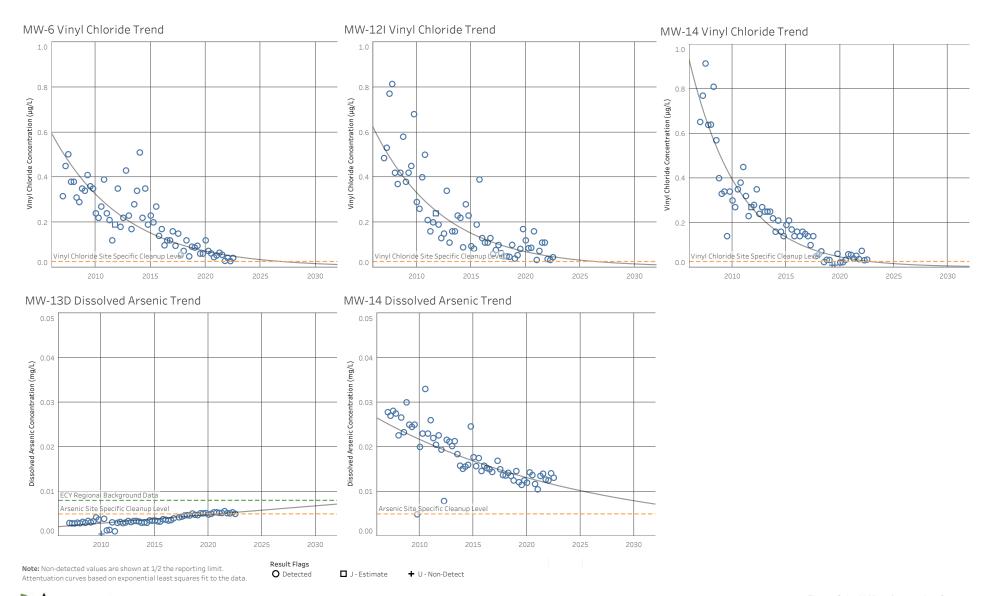




Figure C-3 - 10 Year Attenuation Curves 2022 Third Quarter Environmental Monitoring Report Hansville Landfill Kitsap County, WA

ATTACHMENT D

Field Forms and Laboratory Reports

	The second		Personal	No.
TA /	ACI	-	-	21
	= 12	9 I	=	
A				الات
	4s	SU	LTI	NG

ROUND	WATER S	AMPLING F	RECORD		电影	WELL NU	MBER: M	W-7		Page: of
oject Nan		lansville Land				Project Nu	mber:	16042 (ft TOC):	23	3
		MT, AL	9			Casing Sti	ckup (ft):	(11 100 <u>).</u>	23.0	
	Point of Well		N TOC .			C. Marchael Control of Control of Control	THE RESERVE OF THE PARTY OF THE		1	
	nterval (ft. TC	The second secon	-			Casing Dia	meter (inc	hes <u>):</u>		
lter Pack	Interval (ft. T	OC)								Mid
	umes: 3/4"=		2" = 0.16 g	pf 4	v)(gpf) = " = 0.65 gpf		.47 gpf		Sample In	Mid ntake Depth (ft TOC): Screen
LIDCINA	3/4"= 0 G MEASUF	Manager Parket	" = 0.62 Lpf	4" =	= 2.46 Lpf	0 - 5.50	о срі			
		Typical	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%	
Criteria: Time	Cumul. Volume	0.1-0.5 Lpm Purge Rate	Water	Temp.	Specific Conductance	Dissolved Oxygen	рН	ORP	Turbidity	Comments
	(gal o(L))	(gpm or Lpm)	(ft)	(°C)	(µS/cm)	(mg/L)		(mv)	(NTU)	04-4
36	THE RESERVE OF THE PERSON NAMED IN	0.1	85.08				-	-	(0 D A	Clean . L. ioviet , No Sheen ,
841		0.1	85.07	9.2	187.0	1. 1.56	Ministration	102.0	08-1	that they (I desc A
	6.510		85.03	9.2	192.0	0.47	6.87	91.0	17.9	Hear, Clear, Colorless, A
851	0.5	0 - 1	85.03	9.2	192.6	0.40	68.0	83.6	WANTED TO STATE OF THE PARTY OF	clear Lolorless NS, nos
	2-0	b-1	85.03	9.2	192.1	6.37	6.89	71.8	5.40	clear counter, no sme
- 00	2.5	0.1	85.05	9.2	191.8	0.35	6.88		2.90	clear colorless no men rosmes
6906	3.0	0.1	85.04	9.2	191.6	0.37	6.86	75.0	2.94	clean, colorless, no the
			71			W 1				
			遇	\mathbb{Z}_{i} .						
	(3)	41		Sel.						
	101		1							The second second
	1		. 75	N.A				1		
_			11/1/2							
. N		N.								AMPRICA
		70	<u> </u>	5 L		Total Casing	Volumes	Removed:	-	The second
otal Gallo	ns Purged:	5.6	244 (244)	70					1/1	W WIN
nding Wa	iter Level (ft T	oc): 85	.08			Ending Tota	I Depth (ft	TOC):	- 1	
AMPLE	INVENTO	RY			Mark the second					
Time	Volume	Bottle Type	Quantity	Filtration	Preservation	Appea				Remarks
	mL				1	Color	Turbidity 8 Sediment			
2910	40	VOA	3	N	HCI	Clear	0.91		2.4	
1972		Amber	1	N	H2SO4	Clear	1		Liller	
414	500	The second		-1	N	1		direct sul	h to ARI	
114	500	Poly	2	N			++			
	500	Poly	2	Y	HNO3		 .	direct su	TATE WELL	
	250	Poly	1	Υ	N	-	1	direct su	to ARI	
				24						
THODS		Aller			- 30				0	
rameters i	measured wit	h (instrument	model & ser	ial numbe <u>r)</u>	YSI: Orang	e Turbid	limeter: (Prange	2 WLI: K	urple + white
		edicated bladd			peristaltic			Alconox		
							,			
	ischarged W	ater:								
osal of D	ischarged W /Comments:		on site		-				West of the second	

	A	100		-1
7	45	0	е	CT
	CON	SII	ITI	NG

Sample number - 220426

OUNDV	VATER SA	AMPLING RE	ECORD			WELL NUM	IBER: M	W-5		Page: of
ject Name	e: H 4/20/2022 CMT	Hansville Landfil				Project Nun Starting Wa Casing Stic Total Depth	ater Level (kup (ft): (ft TOC <u>):</u>	ft TOC): 1	00.5	3
reened Int	erval (ft. TO)C)	1.0000000000000000000000000000000000000			Casing Diar	neter (inch	es): 2		
Iter Pack Ir	nterval (ft. To	OC)								
		(ft Water		(Lpfv))(gpf) =	(L)(g	al)		Sample In	take Depth (ft TOC): midscred
asing voic. asing volur	mes: 3/4"=	0.02 gpf	2" = 0.16 gpf	f 4"	= 0.65 gpf	6" = 1.4	47 gpt		Oding.	
20119	3/4"= 0	.09 Lpf 2"	= 0.62 Lpf	4" =	2.46 Lpf	6" = 5.56	Срі			
URGING		REMENTS	1	()	0.182			: 40 mV	± 10%	
Criteria:		Typical	Stable	na	± 3%	± 10%	± 0.1	± 10 mV		Comments
-	Cumul.	0.1-0.5 Lpm Purge Rate	Water	Temp.	Specific Conductance	Dissolved Oxygen	рН	ORP	Turbidity	00,,,,,,
Time	Volume		Level (ft)	(°C)	(µS/cm)	(mg/L)		(mv)	(NTU)	
	(gal q(L)	(gpm or Lpm)	100.53	- (9/	_	-	-		7.00	Start Act hoofist I'm
003	0	0.1	100.53					170.3		May, Colores, ho may in
008	0.5			-	1	1, 7.09	0.93	169.3	3.91	11
013	10		100.47	10	129.5	1.99	6.78	173.5	3.41	11
1018	1.5		100.47	9.9	179,	6.88		177.5	2.74	11
1023	2.0			9.80	129.1	4:33		181.2	2-23	II.
1028	2.5		100.49			6.06	7.09	185.9	2.39	LC
1033	3.0		100.49	9.8	128.7	6.69	707	190.2	2.01	I)
1038	3-5	V	100-49	9.8	128.8	0.01	7-07	170.2		
						Total Casir	ng Volumes	Removed:		
Total Gallo	ins Purged _	1 L								
Ending Wa	ater Level (ft	TOC):() (1.49			Ending Tot	al Depth (r	(100):		
SAMPLE	INVENTO)RY				T				
Time	Volume	Bottle Type	Quantity	Filtration	Preservation		Turbidity	8		Remarks
	mL					Color	Sedimer	nt		
1 29		VOA	3	N	HCI	Clear	2.51			
1030	250	Amber	73	N	H2SO4					
			2	N	N			direct s	ub to ARI	
\dashv	500	Poly		Y	HNO3			direct s	sub to ARI	
\dashv	500	Poly	2			+-			sub to ARI	
-	250	Poly	1	Y	N		1	- 0		
V										
urging Equ	measured v	dedicated blad	lder pump	erial numbe	er) YSI: Oray peristaltic	れらと Turb Deconf	oidimeter: Equipment	Oran :Alcono	S & WLI:	Purple + white
		Water:s:								



Sample number <u>5w - 4 - 220420</u>

OUNDV	VATER SA	AMPLING RI	ECORD			WELL NUI	NREK: T	9		Page: of
-	e:H 4/20/2022	lansville Lan df i				Project Nur Starting Wa	ter Level (ft TOC):		
	4/20/2022	· /	5			Casing Stic Total Depth Casing Diar	kup (ft):			
			N TOC			Total Depth	(ft TOC):	1:	_	_
reened In	terval (ft. TO	C)				Casing Diar	neter (inch	esį.		
ter Pack I	nterval (ft. Ti	DC)	10.000	-						
asing Volu	me	(ft Water) x	(Lpfv)(gpf) =	(L)(g	al) 17 opf		Sample In	ntake Depth (ft TOC):
asing volu	mes: 3/4"=	0.02 gpf	2" = 0.16 gp	1 4	= 0.05 gpi					
	3/4"= 0	09 Lpf 2"	= 0.62 Lpf	4" =	2.46 Lpf	0 - 0.00	<u> </u>			
URGING	MEASUF				- 199	-	+01	± 10 mV	± 10%	
Criteria:		Typical 0 1-0.5 Lpm	Stable	na	± 3%	± 10%	± 0.1			Comments
Tona	Cumul.	Purge Rate	Water	Temp	Specific Conductance	Dissolved Oxygen	рН	ORP	Turbidity	
Time	Volume	(gpm or Lpm)	Level (ft)	(°C)	(uS/cm)	(mg/L)		(mv)	(NTU)	and Sample
1255	(gal or L)	0 -1		83	278 5	10.23	7.40	162-2	18-8	Start Sample It brown , blace pounds
1600	0					19				It brown , what from
							1			
							1			
								1		
								133		
								- 1		
									1	
						Total Casing	Volumes	Removed		
Total Gallo	ons Purged _									
		TOC)				Ending Tota	Depth (ft	TOC)	==	
Ending Wa	aler Level (II	DV								
	INVENTO	Bottle Type	Quantity	Filtration	Preservation	Appea		_		Remarks
Time	Volume	Dottie 1,po				Color	Turbidity & Sediment	1		
	mL			NI NI	HCI	Cleary	18 8			
1.00	40	VOA	3	N	H2SO4	6/44				
	500	Amber	1	N	N	1200 hca		direct sub	to ARI	
	500	Poly	2	N				direct sul	10000000	
	500	Poly	2	Y	HNO3		1	direct su		
	250	Poly	11	Y	N	2.5				
4571100	NC .									1 .
METHOD	15		model 9 co	rial number	YSI Ortal	Turbio	limeter	1601-	WLI	» A
		with (instrument		OR	peristaltic	Decon Eq	uipment	Alconox	+ water	
		dedicated blade	ier pump	UN	pensiano					
urging Eq										
urging Eq		Water								



Sample number <u>SW-1-220420</u>

ROUND	WATER	SAMPLING I	RECORD			WELL N	UMBER: _	5w-	1		Page: of		
oject Nan	ne:	Hansville Land	dfill			Project N	umber:	1604	23				
ite:	ne: 4/20/2022 /:	~1				The second second second		(ft TOC):					
impled by	/:	(45)	1000			Casing Stickup (ft):							
easuring l	Point of We	ll:	NTOC			Total Dept	th (ft TOC):	_					
reened Ir	nterval (ft. T	OC)				Casing Dia	ameter (inc	hes):					
ter Pack	Interval (ft.	TOC)											
asing Vol	ume	(ft Wat	er) x	(Lp	fv)(gpf) =	(L)(gal)						
asing volu	umes: 3/4":	= 0.02 gpf	2" = 0.16		4" = 0.65 gpf				Sample I	ntake Depth	(ft TOC):		
	3/4"= 1	0.09 Lpf 2	2" = 0.62 Lp	f 4"	= 2.46 Lpf	6" = 5.5	6 Lpf						
URGIN	G MEASU	REMENTS											
Criteria:		Typical 0.1-0.5 Lpm	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%				
Time	Cumul.	Purge Rate	Water	Temp	Specific	Dissolved	pH	ORP	Turbidity		Comments		
	Volume (gal or L)	(gpm or Lpm)	Level (ft)	(°C)	Conductance (µS/cm)	Oxygen (mg/L)		(mv)	(NTU)				
445		(gpin or Epin)		10.0	205.5	6.45	10.86	The second second	Statement of the last	Start			
777		0 1	 	1-	101	0	0.00	13.1		Ottal			
					-		THE REAL PROPERTY.						
					-		1						
							- 10						
							1				(A)		
	-							400					
	-			-					10000				
									155				
									100				
										10000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
				-						1980			
						Total Casing	Volumes F	Removed					
otal Gallo	ns Purged _					Total Casing	VOIGITIES :	_					
1 14/-	tee Lovel (ft.	TOC):	_			Ending Total	Depth (ft 1	TOC)					
	INVENTO		Quantity	Filtration	Preservation	Appear	rance			Demorko			
Time	Volume	Bottle Type	Quantity	rilliation	11000114	Color	Turbidity &	1		Remarks			
	mL						Sediment						
450	40	VOA	3	N	HCI	bur	u7 1						
.,,	500	Amber	1	N	H2SO4								
		Poly	2	Ν	N			direct sub	lo ARI		100		
	500		2	Y	HNO3			direct sub	to ARI		1		
	500	Poly						direct sub	to ARI				
-	050	Poly	1	Υ	N								
	250							<u> </u>					
	250												
THORSE													
THODS					vo. ().	Turbide	meter 3	0.5	WLI	ul n			
ameters r	S measured wi	th (instrument n			ysi Overy	Turbidir	meter (Drawy	WLI	u/ A			
meters r	S measured wi	th (instrument n			YSI Overy peristaltic	Turbidir Decon Equ	meter: ¿	Alconox +	WLI ,	ul A			
imeters r	measured wi		er pump		YSI Overy penstallic	Turbidir Decon Equ	meter: ¿	Alconox +	WLI ,	u/ A			



ROUND	WATER	SAMPLING	RECOR)		WELL N	UMBER: _	SW-	7	Page:l_ofl
ate: ampled b easuring	4/20/202 y: Point of W	(15) [ell	N TOC			Casing St Total Dep	Vater Leve ickup (ft): th (ft TOC)	-		
reened i	nterval (ft.	TOC)	~			Casing Dia	ameter (inc	hes):		
		. TOC)			-					
asing Vol	umes: 3/4	(ft Wa l"= 0.02 gpf = 0.09 Lpf	2" = 0 16	gpf	4'' = 0.65 gpf	6" = 1	.47 gpf		Sample I	ntake Depth (fl TOC):
URGIN	G MEAS	UREMENTS								Market Mark
Criteria:		Typical 0 1-0 5 Lpm	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%	
Time	Cumul Volume (gal or L)	Purge Rate	Water Level	Temp.	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	рН	ORP (mv)	Turbidity (NTU)	Comments
1600	_	1.0		10 0	205 5	646	6.86	137.4	13.5	Start
										It brown no more
		-	-		<u> </u>					1+ brown, no soor,
										No. of the last
			-							DATE:
									- 1	
										100000000000000000000000000000000000000
										10000
al Gallor	ns Purged					Total Casing	Volumes F	Removed		
ding Wat	er Level (ft	TOC)				Ending Total	Depth (ft T	OC)		700
MPLE	INVENTO	ORY								
lime	Volume mL	Bottle Type	Quantity	Filtration	Preservation	Appear	Turbidity & Sediment			Remarks
03	40	VOA	3	N	HCI	14	135			
	500	Amber	1	Z	H2SO4		1			
	500	Poly	2	N	N			direct sub t	o ARI	
	500	Poly	2	Y	HNO3			direct sub t	o ARI	
4	250	Poly	1	Y	N	<u> </u>	V	direct sub t	o ARI	
g Equip	neasured w	ith (instrument i ledicated bladde Vater:	er pump		YSI. Osan G	I .		11		J/A

ROUND	WATER S	SAMPLING	RECORD			WELL NUMBER: [MW-13] Page: of					
ate:	4/20/2022		dfill			Project Number: 160423 Starting Water Level (ft TOC):					
	: Aup.		NTOO			THE RESERVE AND ADDRESS OF THE PARTY OF THE	tickup (ft):	and the second of the second o			
		II:				Control of the Contro	th (ft TOC): ameter (inc	THE RESIDENCE OF STREET	2"		
ilter Pack	Interval (ft.	OC)	-			Outsing Di	amotor (mo				
	ımes: 3/4"	(ft Wat = 0.02 gpf 0.09 Lpf		ppf	ofv)(gpf) = 4" = 0.65 gpf = 2.46 Lpf	6" =	1.47 gpf		Sample Ir	ntake Depth (ft TOC):	
PURGIN	G MEASU	REMENTS									
Criteria:		Typical 0.1-0.5 Lpm	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%		
Time	Cumul. Volume	Purge Rate		Temp.	Specific Conductanc	Dissolved e Oxygen	рН	ORP	Turbidity	Comments	
	(gallor L)	(gpm or Lpm)	(ft)	(°C)	(μS/cm)	(mg/L)		(mv)	(NTU)		
1250			_	-		-	-	-	-	Start	
1252	1	_	10.99	10.0	1535	2.99	-				
1257	0.70	U.0003	10.98			3.25	7.70	168.3			
1302	025	0.02	11.14	9.3	149.3	1.49	7.76				
1307	6.4	0.02	11.10	10.0	178.2	क्षा । ज		-	8.10		
1512	0.15	0.03	11.02		148.3	0.80		169.5			
1317	igal	0.03	11.21	10.0	148.2	0.74		175.4			
1322	1.5	010	1/20	10.1	1403	0.76	7.31	183.4	5.55		
, , ,							1				
								100			
								136			
								- 3			
	4										
Total Gallor	ns Purged	\$2				Total Casing	Volumes F	Removed:			
otar Canor	is raigou	i l	17.1			Ending Tota	D45 (6 T	.OC/-	-		
		roc):	00			Ending Tota	Depth (it i	OC)		100000000000000000000000000000000000000	
SAMPLE	INVENTO				[]	Appea	***************************************				
Time	Volume	Bottle Type	Quantity	Filtration	Preservation		Turbidity &			Remarks	
	mL					Color	Sediment				
325	40	VOA	3	N	HCI	near	4.09				
1	500	Amber	1	N	H2SO4		-1-				
	500	Poly	2	N	N			direct sub t	o ARI		
	500	Poly	2	Υ	HNO3			direct sub t	o ARI		
	250	Poly	1	Υ	N	G.	V	direct sub t	o ARI		
A										- H	
A											
							10	. 1	1 200	14 d 3.4	
THODS	255 53-04				1-1 # 1 1/			1(1)	MALL TO LE	U A NO	
THODS		n (instrument m					•			y will	
THODS meters m	ment <u>de</u>	dicated bladder	r pump			Turbidin Decon Equi	•			y will	
THODS ameters maing Equipment	ment <u>de</u>		r pump				•			4 unit	



Sample 156-6-226420

Columber	GROUNDWATER SAMPLING RECORD							WELL NUMBER: SW-Co Page: 1 of 1					
NTC Seemed Interval (ft. TOC) Casing Dameter (inches) Casing	ate:	4/20/2022		ifili			Starting Water Level (ft TOC):						
Casing Dameter (inches) Casing Dameter (127			NTOC			Casing S	Stickup (ft):		- 1			
sing Volume	creened In	terval (ft. T	OC)	NTOC							COMMENT OF		
sing Volume	ilter Pack I	nterval (ft.	TOC)		_		Casing L	nameter (inc	cnes):	_	99500		
Sample Intoke Depth (ft TOC)													
URGING MEASUREMENTS Criteria: Typical of 1-65 curve of 1	asing volu	mee: 3/4"	(it vvat	er) x	(Lp	nv)(gpr) =	(L			Carrala I	dele Dest	(A TOO): —	
URGING MEASUREMENTS Criteria: Typical of 1-65 curve of 1	zasing volu	3/4"=	-0.02 gpi 0.09 Inf :	2 - 0 10 g	βρι f Δ"	4 - 0.00 gpi	6" = 5			Sample II	паке Беріл	(II 100):	
Criteria:				002 25	30	- 2.40 Срг	0 - 0	о срі					
Time Cumb			Typical	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%			
Igailor L (gpm or Lpm) (ft) (rC) (u.Scm) (mpL) (mV) (NTU)	Time				Temp				ORP	Turbidity		Comments	
				Level	(°C)	No. 100 (100 (100 (100 (100 (100 (100 (100			(mv)	(NTU)			
Total Casing Volumes Removed Total Casing Volumes Removed Ending Total Depth (ft TOC) AMPLE INVENTORY Time Volume Bottle Type Quantity Filtration Preservation Appearance nit Color Scrippin Remarks Color Scrippin Remarks Color Scrippin Remarks 300 40 VOA 3 N HCI I N H2SQ4 500 Anther 1 N H2SQ4 500 Poly 2 N N O direct sub to ARI 500 Poly 1 Y N O direct sub to ARI THODS The Color Scrippin Remarks The Color Scr	1345						The second second				Start		
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AMPLE INVENTORY Time Volume Bottle Type Quantity Filtration Preservation Appearance Remarks mit VOA 3 N HCI II BOTT 31, 8 Sequent 500 Amber 1 N H2SO4 500 Poly 2 N N N I direct sub to ARI 500 Poly 2 Y HNO3 I direct sub to ARI 250 Poly 1 Y N I direct sub to ARI THODS meters measured with (instrument model & serial number YSI Draws Turbidimeter Change WLI mg Equipment dedicated bladder pump OR peristaltic Decon Equipment Alconox + water sal of Discharged Water on site	Total Gallor	is Purged		-			Total Casir	ig Volumes	Removed		1		
AMPLE INVENTORY Time													
Time Volume Bottle Type Quantity Filtration Preservation Appearance Color Seather	Ending Wat	er Level (ft	TOC)				Ending Tot	al Depth (ft	TOC)		1700		
THODS mil	SAMPLE	INVENTO	RY								V		
Miles Color Set 3 new	Time	Volume	Bottle Type	Quantity	Filtration	Preservation	Appe	arance			5		
September Sept		mi					Color				Kemarks		
500 Amber 1 N H2SO4	350		1/04	3	N.	HCI			-			-	
500 Poly 2 Y HNO3 direct sub to ARI 500 Poly 2 Y HNO3 direct sub to ARI 250 Poly 1 Y N direct sub to ARI THODS The transfer of t	7				1900		1	1					
THODS meters measured with (instrument model & serial number YSI UNIVERS Turbidimeter Ovariance WLI mg Equipment									direct sub to	ARI			
THODS meters measured with (instrument model & serial number YSI Urace Turbidimeter Ovaria WLI mg Equipment	$\neg \vdash \vdash$												
THODS meters measured with (instrument model & serial number YSI Urace Turbidimeter Ovace WLI mg Equipment	+												700
meters measured with (instrument model & serial number YSI Uvava = Turbidimeter Ovava & WLI ng Equipment	V+	250	Poly	1	Y	N	-	 \	direct sub to	ARI			
meters measured with (instrument model & serial number YSI Uvava = Turbidimeter Ovava & WLI ng Equipment													
ng Equipment <u>dedicated bladder pump</u> OR <u>peristaltic</u> Decon Equipment <u>Alconox + water</u> sal of Discharged Water <u>on site</u>	THODS								·				
ng Equipment <u>dedicated bladder pump</u> OR <u>peristaltic</u> Decon Equipment <u>Alconox + water</u> sal of Discharged Water <u>on site</u>	ameters me	easured with	h (instrument m	odel & seria	il number '	rsi browe	Turbidi	meter Ov	ana 2 u	NII -			
sal of Discharged Water on site													
					OK p	eristaltic	Decon Equ	ipment	Alconox + w	ater			
valions/Comments	sal of Disc	charged Wa	ater or	site									
	rvations/Co	omments											



Sample MW-12I - 120420

GROUNDWATER SAMPLING RECORD							UMBER:	Page: of				
Project No.	me.	Hansville Lan	dfill			Project Number: 160423						
late.	4/20/2022					Starting V	Vater Leve	el (fl TOC):	1.71			
Sampled b	y: Awp	r CITY				Casing Stickup (ft): Total Depth (ft TOC):						
Measuring	Point of We	ell:	NTOC									
Screened	Interval (ft. T	TOC)	ے.			Casing Diameter (inches): 2 "						
Filter Pack	Interval (II.	TOC)		0	-6-Vanf) =	(1)	(gal)					
Casing Vo	lume	(ft Wat	er) x	onf (L)	4" = 0.65 gpf	6" = 1	1.47 gpf		Sample li	ntake Depth (ft TOC):		
Casing vol	lumes: 3/4"=	= 0.02 gpf 0.09 Lpf 2	2'' = 0.62 Lg		= 2.46 Lpf							
DURGIN		REMENTS	17 1									
		Typical	Stable	na	± 3%	± 10%	± 0.1	± 10 mV	± 10%			
Criteria	Cumul.	0.1-0.5 Lpm	Water	Temp.	Specific	Dissolved	рН	ORP	Turbidity	Comments		
Time	Volume	Purge Rate	Level	(°C)	Conductance (µS/cm)	e Oxygen (mg/L)		(mv)	(NTU)			
21112	(gafor L)	(gpm or Lpm)	(ft)	-	- (perom)	-	-	-	=	Start		
B1422	F	.5	9.90	9.6	66.7	0.37	4.84	334.9	1.74			
1424	1.0	_	9.84	9.5	69.5	0.32	4.80	337.0	4.20			
1429	1.50	-2	9.84	9.5	70.6	0.25	4.68	340.1	3.52			
1434	2.0	.16	9.91		72.3	0.25	4.56	343.8	3.54			
	2.25	.125	9.89	• • • • • • • • • • • • • • • • • • • •	70.2	0.23	4.45	347.3	0.97			
1444	2.75	. (1)	4.01	1 177	1 1333	0.197	71.30	110 (11,210/6			
拉口。			10 40	TESTA D	n.	Calua	10.11	1 4				
			Time and			10 10 1						
			1 1000	1 100	10.14	Page 1						
			1.00	No.	- 推翻。)	1 1 7 1			Total Marie			
			1000	14 TE								
						N A						
		1	1000									
141		1	10 miles									
										V 10 L		
		.7	41987			Total Casing	Volumes I	Removed:				
Total Gallo	ns Purged:	7.0	Zan						_			
nding Wa	ter Level (ft T	roc): 4 . 0	52			Ending Total	Depth (ft	TOC):		-		
	INVENTO	ACCUSE AND THE RESIDENCE		7.73				-				
Time	Volume	Bottle Type	Quantity	Filtration	Preservation	Appear	ance Turbidity &			Remarks		
	mL					Color	Sediment					
445	17 20	VOA	3	N	HCI	UMN	1.27					
197	500	Amber	1	N	H2SO4	1						
-	500	MP CLESSON	- 2	N	N		200	direct sub t	o ARI			
-	500	Poly	2	Y	HNO3			direct sub t	o ARI			
7,	500	Poly	10 9	Y	N	0	O	direct sub t	10 F/4 92.10 k	129-		
N 1 /	250	Poly	1,	77.		-	7	2 4		1		
A	38 0 10					7.4		7.V	N-OF			
V	9000					7月1日						
THODS	7.1.2											
ETHODS rameters m	neasured with	n (instrument m	odel & seria	al number) \	rsi: black	Turbidim	neter: SV	cen	WLI: W	ael + white		
rameters m	neasured with	n (instrument m			rsi: black eristaltic	Turbidim		(B) 17		ael + white		
rameters m ging Equip	neasured with	dicated bladder	pump			100		(B) 17		aell + white		
rameters m ging Equip posal of Dis	neasured with ment: <u>de</u> scharged Wa		pump			100		(B) 17		aell + white		

As	0	e	ct
CON	SI	LT	ING

Sample 100 4 - 220420

							10040	13	
Date: 4/2 Sampled by:	Hansville 0/2022 #W of Well:	P			Casing St	umber:		子母、ろい	.
	al (ft. TOC)				Casing Dia	ameter (inch	es):	v	
Casing Volume	val (ft. TOC)(ft	Water) x		pfv)(gpf) =		gal)		Sample In	ntake Depth (ft TOC)
Casing volumes	3/4"= 0.02 gpf 3/4"= 0.09 Lpf	2" = 0.1 2" = 0.62	01	4" = 0.65 gpf 4" = 2.46 Lpf	6" = 5.5				
	ASUREMENT								
Criteria:	Typical 0 1 0 5 Lp	Stable	e na	± 3%	± 10%	± 0.1	± 10 mV	± 10%	
Time Vol	nul Purge Ra	ate Wate Level	1 Pimp	Specific Conductance (µS/cm)	Dissolved Oxygen (mg/L)	pH	ORP (mv)	Turbidity (NTU)	Comments
958 -	or L) (gpm or Lp	7117	-		4	-	-		Start
1002 -		74 4	10.4	90041	9.63	-2.29	407-7	0 00	
407 0-1	5).]	74.40		12070		-1-66	419-0	3.00	
412 05	UL		5/19	2420		-201	410.5		
12 07		745		2792	8.46		401.6	0.00	
000		744		1859	9,44		3807		
× 27 /12	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	74.4	111:7	284.5	9 43		299	0.83	
132 130	101	74.240			9099	0.21	306.1	1-11.	
12 1170	01	7145	-	200	02-49	0.35	2988	0.86	
12 171) M7 1-75		124 40	1	247.0	9.53	U.57	2810	6-40	
11 11-12									
					Total Casing	Volumes F	Removed		
l Gallons Purged	719	7.01							
ng Water Level ((10C)	4.59			Ending Total	Depth (ft T	00)		
IPLE INVENT	ORY								
ne Volume	Bottle Type	Quantity	Filtration	Preservation	Арреа	Turbidity &			Remarks
mL					Color	Sediment			
40	VOA	3	N	HCI	way	0.45			
500	Amber	1	N	H2SO4		1	1 1	to ADI	
500	Poly	2	N	N			direct sub		
500	Poly	2	Y	HNO3			direct sub		
250	Poly	1	Y	N			direct sul	U TO AKI	
						L			_
DDS									, ,
פעו	h (.a.a)	adal 9 aasa	Loumber \	SI Bart	Turbidir	meter. G	in	WLI.	Blue lunter
				eristaltic	Decon Equ				
rs measured wi	J			C. FORESTER					
qu ipment <u>de</u>	edicated bladder ateron	F	OKP						

0	pec.	à Z		Hambe	r		JMBER: ∰	The second second second		Page: of
GROUND	WATER	SÁMPLI NG F	RECORD		101					14 14 14 14
Project Na	me	Hansville Land	fill		774	Ot-ding V	umber:	(ff TOC):	82.05	3
Date	4.20.2022					Casing St	ickup (ft): th (ft TOC):		1 2/28	
Sampled h	V					Total Dep	th (ft TOC):			
Measuring	Point of We	ell: FOC <u>)</u>	NICC	OBST		Casing Dia	ameter (inch	nes):	21	
Ediar Dack	Interval (ft.	TOC)							3' 1	
n Va	luma -	(ft Wate	er) x	(Lp	fv)(gpf) =	(L)(gal)		Sample Ir	ntake Depth (ft TOC): Mi 350
Casing vo	umes: 3/4"	'= 0.02 gpt	2 - 0.10 9							
Casing VO	3/4"=	0.09 Lpf 2	" = 0.62 Lpf	4"	= 2.46 Lpf	6 = 0.0	О СР:			The
PURGIN	G MEASL	IREMENTS				4004	± 0.1	± 10 mV	± 10%	1 1 1 1 1 1 1 1 1
Criteria		Typical 0.1-0.5 Lpm	Stable	na	± 3%	± 10%	0.00 Sept. 15	ORP	Turbidity	Comments
	Cumul.	Purge Rate	Water	Temp.	Specific Conductance	STREET, SHIPS AND ADDRESS.	pН	(mv)	(NTU)	
Time	Volume (gal) of Dr	000	Level (ft)	(°C)	(µS/cm)	(mg/L)		-	- 16	Start
MA	9	50.7	-	-			200	141.0	4.63	clear coioness, noch
0750	0.3	1001	82.06	10.1	177.4	لدك	CONTRACTOR AND ADDRESS OF THE PARTY OF THE P	142 9	3.45	U. Salahari
0755	0.6	~0.1	62.06	10.2	+01·4	2.51	350000000000000000000000000000000000000	M9.1		N
0800	1.0	~0.1	90110	10.1	116.1	3-06	7.0	149 9		17
and the second second	1.3	~0.1	82.06	10.3	115. 6	3.09	7.00	149 0	1.48	V
0810	1.6	~O.1	82.04	10.2	115.3	3.01	7.20	111.4	1,	
0815	1.4		4				10 MA	British State		
			170		1	174 - 175 (8)-		3.1		
				1000	1. S. S.	A Alle				
					-2	Appropriate	Jr sett			
		Till				7.5				
			40.7							
						100				
					la la la			The state of the s		
								J. 11		
0 . !! -	ns Purged:_	1.6 gul		<u> </u>		Total Casing	Volumes R	emoveu:		
		V	20			Ending Total	Depth (ft To	OC):		Contract to the second
nding Wa	ter Level (ft 7	roc): 82 ·	30			Tuesday 1				VI.
AMPLE	INVENTO	RY	0 -444.	Filtration	Preservation	Appear	ance			Remarks
Ťime	Volume	Bottle Type	Quantity	Filliation		Color	Turbidity & Sediment			
	mL	7)			1.01		Made 1	
1920	40	VOA	3	N	A STATE OF THE PARTY OF THE PAR	"llow"	1	1 a 3		CAPALL
1	500	Amber	1 /	N	H2SO4	Angular I		direct sub t	o ARI	
	500	Poly	2	N	N	1701	Washington and the	direct sub t	1000年月1000	
	500	Poly	2	Y	HNO3		Market Control			
	250	Poly	/.1	Υ	N	V	V	direct sub to	UAN	
1/		7/4.	9.11							

ouplicate Sample MW-2000-220421

Disposal of Discharged Water:



Environment Testing America

ANALYTICAL REPORT

Eurofins Denver 4955 Yarrow Street Arvada, CO 80002 Tel: (303)736-0100

Laboratory Job ID: 280-161400-1 Client Project/Site: Hansville Landfill Sampling Event: 2Q_3Q_4Q Sampling

For:

Aspect Consulting 350 Madison Ave N Bainbridge Island, Washington 98110

Attn: Ms. Meilani Lanier-Kamaha'o

*V*Authorized for release by:

Janice S. Collin

5/26/2022 5:05:17 PM

Janice Collins, Project Management Assistant I (303)736-0100

Janice.Collins@et.eurofinsus.com

Review your project results through EO L.

Have a Question?



Visit us at: www.eurofinsus.com/Env

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

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

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

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15

Client: Aspect Consulting Project/Site: Hansville Landfill Laboratory Job ID: 280-161400-1

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Definitions/Glossary

Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Qualifiers

ΝЛ	212	10
IVI	HIA	1.5
•••		•

Qualifier Qualifier Description

MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not

applicable.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits

F2 MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly	used abbreviations n	nav or mav i	not be present in	this report.
Appreviation	THESE COMMONN	y useu abbievialions n	iay oi illay i	not be present ii	i uiis repo

Example 2 Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Denver

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Case Narrative

Client: Aspect Consulting Project/Site: Hansville Landfill

Job ID: 280-161400-1

Job ID: 280-161400-1

Laboratory: Eurofins Denver

Narrative

CASE NARRATIVE

Client: Aspect Consulting

Project: Hansville Landfill

Report Number: 280-161400-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than Eurofins TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The samples were received on 04/22/2022; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 0.4°C and 0.6°C C.

Holding Times

All holding times were within established control limits.

Method Blanks

All Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Dissolved Manganese Method 6020 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

Sample MW14-220421 was selected to fulfill the laboratory batch quality control requirements for Method 350.1. Analysis of the laboratory generated MS/MSD for this sample exhibited recoveries of Ammonia control limit above the upper control limit. In addition, the RPD was outside of the RPD limits for Ammonia. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, this anomaly may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

General Comments

The analyses for Method 8260C and Method 8260C SIM were performed by Eurofins Buffalo. Their address and phone number are:
Eurofins Buffalo

Eurofins Denver 5/26/2022

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Case Narrative

Client: Aspect Consulting Job ID: 280-161400-1 Project/Site: Hansville Landfill

Job ID: 280-161400-1 (Continued)

Laboratory: Eurofins Denver (Continued)

10 Hazelwood Drive, Suite 106 Amherst, NY 14228 716-691-2600

The analysis for Nitrate, Nitrite, Ortho-phos Method 300.0, and Dissolved Arsenic Method 200.8 were performed by ARI. Their address and phone number are: Analytical Resources, Inc. 4611 S.134th Place Tukwila, WA 98168-3240 206-695-6200

Client: Aspect Consulting Project/Site: Hansville Landfill

Client Sample ID: MW7-220420 Lab Sample ID: 280-161400-1

Analyte	Result C	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	1.3		1.0		ug/L	1	_	6020	Dissolved
Total Alkalinity	140		10		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity	140		10		mg/L	1		SM 2320B	Total/NA
Total Organic Carbon - Average	1.8		1.0		mg/L	1		SM 5310B	Total/NA

Client Sample ID: MW5-220420	Lab Sample ID: 280-161400-2

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Sulfate	7.1	5.0	mg/L		300.0	Total/NA
Total Alkalinity	78	10	mg/L	1	SM 2320B	Total/NA
Bicarbonate Alkalinity	78	10	mg/L	1	SM 2320B	Total/NA

Client Sample ID: SW6-22	20420		Lab Sample ID: 2	80-161400-3
Amalista	December Occalification	 MDI II	DUE - D. Made d	B T

Analyte	Result Qu	ıalifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	35		1.0		ug/L	1	_	6020	Dissolved
Chloride	3.3		3.0		mg/L	1		300.0	Total/NA
Total Alkalinity	46		10		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity	46		10		mg/L	1		SM 2320B	Total/NA
Total Organic Carbon - Average	22		1.0		mg/L	1		SM 5310B	Total/NA

Client Sample ID: SW4-220420	Lab Sample ID: 280-161400-4

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac	O Method	Prep Type
Manganese	35	1.0	ug/L		6020	Dissolved
Chloride	10	3.0	mg/L	1	300.0	Total/NA
Sulfate	17	5.0	mg/L	1	300.0	Total/NA
Total Alkalinity	130	10	mg/L	1	SM 2320B	Total/NA
Bicarbonate Alkalinity	130	10	mg/L	1	SM 2320B	Total/NA
Total Organic Carbon - Average	9.7	1.0	mg/L	1	SM 5310B	Total/NA

Client Sample ID: SW1-220420	Lab Sample ID: 280-161400-5

Analyte	Result Qua	lifier RL	MDL Unit	Dil Fac D	Method	Prep Type
Manganese	1.1	1.0	ug/L		6020	Dissolved
Chloride	9.4	3.0	mg/L	1	300.0	Total/NA
Sulfate	17	5.0	mg/L	1	300.0	Total/NA
Total Alkalinity	100	10	mg/L	1	SM 2320B	Total/NA
Bicarbonate Alkalinity	100	10	mg/L	1	SM 2320B	Total/NA
Total Organic Carbon - Average	2.7	1.0	mg/L	1	SM 5310B	Total/NA

Lab Sample ID: 280-161400-6 Client Sample ID: SW7-220420

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac [Method	Prep Type
Manganese	27	1.0	ug/L		6020	Dissolved
Chloride	3.3	3.0	mg/L	1	300.0	Total/NA
Sulfate	7.8	5.0	mg/L	1	300.0	Total/NA
Total Alkalinity	57	10	mg/L	1	SM 2320B	Total/NA
Bicarbonate Alkalinity	57	10	mg/L	1	SM 2320B	Total/NA
Total Organic Carbon - Average	9.2	1.0	mg/L	1	SM 5310B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Job ID: 280-161400-1

Client: Aspect Consulting

Job ID: 280-161400-1

Project/Site: Hansville Landfill

Client Sample ID: MW13D-220420

Lab Sample ID: 280-161400-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	6.3		1.0		ug/L		_	6020	Dissolved
Chloride	5.1		3.0		mg/L	1		300.0	Total/NA
Sulfate	15		5.0		mg/L	1		300.0	Total/NA
Total Alkalinity	73		10		mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity	73		10		ma/L	1		SM 2320B	Total/NA

Client Sample ID: MW12I-220420

Lab Sample ID: 280-161	400-8
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Analyte	Result Quali	fier RL	MDL I	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.033	0.020	ī	ug/L		_	8260C SIM	Total/NA
Manganese	27	1.0	ι	ug/L	1		6020	Dissolved
Chloride	3.8	3.0	r	mg/L	1		300.0	Total/NA
Sulfate	5.7	5.0	1	mg/L	1		300.0	Total/NA
Total Alkalinity	70	10	r	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity	70	10	r	mg/L	1		SM 2320B	Total/NA
Total Organic Carbon - Average	2.0	1.0	r	mg/L	1		SM 5310B	Total/NA

Client Sample ID: MW6-220420

Lab Sample ID: 280-161400-9

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac) Method	Prep Type
Vinyl chloride	0.028	0.020		ug/L		8260C SIM	Total/NA
Manganese	340	1.0		ug/L	1	6020	Dissolved
Chloride	6.8	3.0		mg/L	1	300.0	Total/NA
Sulfate	25	5.0		mg/L	1	300.0	Total/NA
Total Alkalinity	140	10		mg/L	1	SM 2320B	Total/NA
Bicarbonate Alkalinity	140	10		mg/L	1	SM 2320B	Total/NA
Total Organic Carbon - Average	1.4	1.0		mg/L	1	SM 5310B	Total/NA

Client Sample ID: MW14-220421

Lab Sample ID: 280-161400-10

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	0.032	0.020		ug/L	1	_	8260C SIM	Total/NA
Manganese	1300	1.0		ug/L	1		6020	Dissolved
Chloride	3.6	3.0	1	mg/L	1		300.0	Total/NA
Sulfate	7.0	5.0		mg/L	1		300.0	Total/NA
Total Alkalinity	93	10	1	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity	93	10	1	mg/L	1		SM 2320B	Total/NA
Total Organic Carbon - Average	2.5	1.0		mg/L	1		SM 5310B	Total/NA

Client Sample ID: MW20DD-220421

Lab Sample ID: 280-161400-11

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
Vinyl chloride	0.037	0.020	ug/L		8260C SIM	Total/NA
Manganese	1300	1.0	ug/L	1	6020	Dissolved
Chloride	3.9	3.0	mg/L	1	300.0	Total/NA
Sulfate	7.6	5.0	mg/L	1	300.0	Total/NA
Total Alkalinity	94	10	mg/L	1	SM 2320B	Total/NA
Bicarbonate Alkalinity	94	10	mg/L	1	SM 2320B	Total/NA
Total Organic Carbon - Average	1.8	1.0	mg/L	1	SM 5310B	Total/NA

Client Sample ID: TB1-220421

Lab Sample ID: 280-161400-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Denver

5/26/2022

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Method Summary

Client: Aspect Consulting Project/Site: Hansville Landfill

Method **Method Description** Protocol Laboratory 8260C SIM Volatile Organic Compounds (GC/MS) SW846 TAL BUF 6020 Metals (ICP/MS) SW846 TAL DEN 300.0 Anions, Ion Chromatography **MCAWW** TAL DEN 350.1 Nitrogen, Ammonia MCAWW TAL DEN SM 2320B Alkalinity SM TAL DEN SM 5310B Organic Carbon, Total (TOC) SM TAL DEN Subcontract Dissolved As (ARI) - direct sub to ARI from field SC0056 None Nitrate/Nitrite/o-phos(field filtered) (ARI) - direct sub to ARI from field Subcontract None SC0056

Protocol References:

Purge and Trap

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

3005A

5030C

SM = "Standard Methods For The Examination Of Water And Wastewater"

Preparation, Total Recoverable or Dissolved Metals

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200

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

TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Eurofins Denver

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Job ID: 280-161400-1

TAL DEN

TAL BUF

SW846

SW846

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Sample Summary

Client: Aspect Consulting

Job ID: 280-161400-1 Project/Site: Hansville Landfill

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-161400-1	MW7-220420	Water	04/20/22 09:10	04/22/22 11:00
280-161400-2	MW5-220420	Water	04/20/22 10:40	04/22/22 11:00
280-161400-3	SW6-220420	Water	04/20/22 13:50	04/22/22 11:00
280-161400-4	SW4-220420	Water	04/20/22 13:00	04/22/22 11:00
280-161400-5	SW1-220420	Water	04/20/22 14:50	04/22/22 11:00
280-161400-6	SW7-220420	Water	04/20/22 16:05	04/22/22 11:00
280-161400-7	MW13D-220420	Water	04/20/22 13:25	04/22/22 11:00
280-161400-8	MW12I-220420	Water	04/20/22 14:45	04/22/22 11:00
280-161400-9	MW6-220420	Water	04/20/22 16:50	04/22/22 11:00
280-161400-10	MW14-220421	Water	04/21/22 08:20	04/22/22 11:00
280-161400-11	MW20DD-220421	Water	04/21/22 07:00	04/22/22 11:00
280-161400-12	TB1-220421	Water	04/20/22 09:10	04/22/22 11:00

Client Sample Results

Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: MW7-220420							Lab Sam	ple ID: 280-16	1400-
Date Collected: 04/20/22 09:10								. Matrix:	: Wate
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	ND		0.020		ug/L		<u> </u>	05/01/22 22:16	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	118		50 - 150			-		05/01/22 22:16	
TBA-d9 (Surr)	101		50 - 150					05/01/22 22:16	
, ,									
Client Sample ID: MW5-220420							Lab Sam	iple ID: 280-16	
Date Collected: 04/20/22 10:40								Matrix:	: Wate
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	ND		0.020		ug/L			05/01/22 22:44	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	117		50 - 150			-		05/01/22 22:44	
TBA-d9 (Surr)	97		50 - 150					05/01/22 22:44	
Client Sample ID: SW6-220420							Lab Sam	nple ID: 280-16	1400
•							Lab Saii		
Date Collected: 04/20/22 13:50								Matrix:	. wate
Date Received: 04/22/22 11:00						_			
Analyte		Qualifier	RL	MDL	Unit	<u>D</u> .	Prepared	Analyzed	Dil Fa
Vinyl chloride	ND		0.020		ug/L			05/01/22 23:12	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	115		50 - 150					05/01/22 23:12	
TBA-d9 (Surr)	91		50 - 150					05/01/22 23:12	
Client Sample ID: SW4-220420							Lab Sam	ple ID: 280-16	1400-
Date Collected: 04/20/22 13:00								. Matrix:	
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	ND		0.020		ug/L	= -		05/01/22 23:40	
_	a								
Surrogate	%Recovery	Qualifier	Limits			-	Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	118		50 - 150					05/01/22 23:40	
TBA-d9 (Surr)	97		50 - 150					05/01/22 23:40	
Client Sample ID: SW1-220420							Lab Sam	ple ID: 280-16	1400-
Date Collected: 04/20/22 14:50								Matrix:	
Date Received: 04/22/22 11:00									
	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
			0.020		ug/L		· ·	05/02/22 00:08	
Analyte Vinyl chloride	ND		0.020						
Analyte Vinyl chloride		Qualifier					Prepared	Analyzed	Dil F=
Analyte Vinyl chloride Surrogate	%Recovery	Qualifier	Limits			-	Prepared	Analyzed	Dil Fa
Analyte Vinyl chloride		Qualifier				-	Prepared	Analyzed 05/02/22 00:08 05/02/22 00:08	Dil Fa
Analyte Vinyl chloride Surrogate Dibromofluoromethane (Surr) TBA-d9 (Surr)	%Recovery	Qualifier	Limits 50 - 150			-	•	05/02/22 00:08 05/02/22 00:08	
Analyte Vinyl chloride Surrogate Dibromofluoromethane (Surr) TBA-d9 (Surr) Client Sample ID: SW7-220420	%Recovery	Qualifier	Limits 50 - 150			-	•	05/02/22 00:08 05/02/22 00:08 nple ID: 280-16	1400-
Analyte Vinyl chloride Surrogate Dibromofluoromethane (Surr) TBA-d9 (Surr) Client Sample ID: SW7-220420 Date Collected: 04/20/22 16:05	%Recovery	Qualifier	Limits 50 - 150			-	•	05/02/22 00:08 05/02/22 00:08	1400-
Analyte Vinyl chloride Surrogate Dibromofluoromethane (Surr) TBA-d9 (Surr)	%Recovery 118 108	Qualifier Qualifier	Limits 50 - 150		Unit	D	•	05/02/22 00:08 05/02/22 00:08 nple ID: 280-16	1400-

Eurofins Denver

Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

TBA-d9 (Surr)

Method: 8260C SIM - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	116		50 - 150			-	· · ·	05/02/22 00:36	
TBA-d9 (Surr)	91		50 - 150					05/02/22 00:36	
Client Sample ID: MW13D-22	20420						Lab Sam	ple ID: 280-16	1400-
Date Collected: 04/20/22 13:								Matrix	
Date Received: 04/22/22 11:0	00								
Analyte	Result ND	Qualifier		MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	ND		0.020		ug/L			05/02/22 01:04	
Surrogate	%Recovery	Qualifier	Limits			-	Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	115		50 - 150					05/02/22 01:04	
TBA-d9 (Surr)	101		50 - 150					05/02/22 01:04	
Client Sample ID: MW12I-220	0420						Lab Sam	ple ID: 280-16	1400-
Date Collected: 04/20/22 14:4	45							Matrix	: Wate
Date Received: 04/22/22 11:0	00								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	0.033		0.020		ug/L			05/02/22 01:32	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	117		50 - 150			-		05/02/22 01:32	
TBA-d9 (Surr)	99		50 - 150					05/02/22 01:32	
Client Sample ID: MW6-2204	120						Lab Sam	ple ID: 280-16	1400
Date Collected: 04/20/22 16:	50							Matrix	: Wate
Date Received: 04/22/22 11:0	00								
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	0.028		0.020		ug/L			05/02/22 02:00	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	117		50 - 150			-		05/02/22 02:00	
TBA-d9 (Surr)	91		50 - 150					05/02/22 02:00	
Client Sample ID: MW14-220)421						Lab Samp	ole ID: 280-161	400-1
Date Collected: 04/21/22 08:								Matrix	
Date Received: 04/22/22 11:0						_			
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	0.032		0.020		ug/L			05/02/22 02:28	
Surrogate	%Recovery	Qualifier	Limits			_	Prepared	Analyzed	Dil F
Dibromofluoromethane (Surr)	118		50 - 150					05/02/22 02:28	
TBA-d9 (Surr)	90		50 - 150					05/02/22 02:28	
Client Sample ID: MW20DD-	220421						Lab Samp	ole ID: 280-161	I 400 -1
Date Collected: 04/21/22 07:	00							Matrix	: Wate
Date Received: 04/22/22 11:0	00								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Vinyl chloride	0.037		0.020		ug/L			05/02/22 02:56	
Surrogate	%Recovery	Qualifier	Limits			.=	Prepared	Analyzed	Dil Fa
Dibromofluoromethane (Surr)	115		50 - 150			=		05/02/22 02:56	

Eurofins Denver

05/02/22 02:56

50 - 150

Client Sample Results

Client: Aspect Consulting Job ID: 280-161400-1 Project/Site: Hansville Landfill

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Client Sample ID: TB1-2204 Date Collected: 04/20/22 09 Date Received: 04/22/22 11	9:10						Lab Samı	ole ID: 280-161 Matrix:	
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.020		ug/L			05/02/22 03:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	115		50 - 150					05/02/22 03:24	1
TBA-d9 (Surr)	99		50 ₋ 150					05/02/22 03:24	1

Method: 6020 - Metals (IC	CP/MS) - Dissolved
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Client Sample ID: SW7-220420

Client Sample ID: MW7-220420 Date Collected: 04/20/22 09:10							Lab Sam	ple ID: 280-16 Matrix	1400-1 : Water
Date Received: 04/22/22 11:00	D 14	O a differen	ъ.	MDI	1114	_	B	A l	D'! F
Analyte	Result	Qualifier	RL	MDL	Unit	<u>D</u>	Prepared	Analyzed	Dil Fac
Manganese	1.3		1.0		ug/L		04/26/22 10:05	04/26/22 18:46	1
Client Sample ID: MW5-220420							Lab Sam	ple ID: 280-16	1400-2
Date Collected: 04/20/22 10:40								Matrix	: Water
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		1.0		ug/L		04/26/22 10:05	04/26/22 18:50	1
Manganese Client Sample ID: SW6-220420	ND		1.0		ug/L		04/26/22 10:05		

Date Collected: 04/20/22 13:50								Matrix:	Water
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	35		1.0		ug/L		04/26/22 10:05	04/26/22 18:54	1

Client Sample ID: SW4-220420							Lab Sam	DIE ID: 280-16	1400-4
Date Collected: 04/20/22 13:00								Matrix:	Water
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	35		1.0		ua/L		04/26/22 10:05	04/26/22 18:57	1

Client Sample ID: SW1-220420 Date Collected: 04/20/22 14:50	Lab Sample ID: 280-161400-5 Matrix: Water
Date Received: 04/22/22 11:00	Wattix. Water

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1.1	1.0	ug/L		04/26/22 10:05	04/26/22 19:01	1

Date Collected: 04/20/22 16:05								Matrix	Water
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	27		1.0		ua/l		04/26/22 10:05	04/26/22 19:04	

Client Sample ID: MW13D-220420	Lab Sample ID: 280-161400-7
Date Collected: 04/20/22 13:25	Matrix: Water
Data Bassiyad: 04/22/22 11:00	

Buto 11000110u: 0-1/22/22 11100							
Analyte	Result Qualif	fier RL	MDL Uni	t D	Prepared	Analyzed	Dil Fac
Manganese	6.3	1.0	ug/l	-	04/26/22 10:05	04/26/22 19:08	1

Lab Sample ID: 280-161400-6

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Client Sample Results

Client: Aspect Consulting
Project/Site: Hansville Landfill

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: MW12I-220420 Date Collected: 04/20/22 14:45							Lab Sam	ole ID: 280-16 Matrix:	1400-8 Water
Date Received: 04/22/22 11:00 Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	27		1.0		ug/L		04/27/22 09:33	04/28/22 09:41	1
Client Sample ID: MW6-220420							Lab Sam	ole ID: 280-16	1400-9
Date Collected: 04/20/22 16:50 Date Received: 04/22/22 11:00								Matrix	Water
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	340		1.0		ug/L		04/27/22 09:33	04/28/22 09:45	1
Client Sample ID: MW14-220421 Date Collected: 04/21/22 08:20 Date Received: 04/22/22 11:00							Lab Samp	le ID: 280-161 Matrix:	400-10 Water
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1300		1.0		ug/L		04/27/22 09:33	04/28/22 09:49	1
Client Sample ID: MW20DD-22042	1						Lab Samp	le ID: 280-161	400-11
Date Collected: 04/21/22 07:00							•	Matrix:	Water
Date Received: 04/22/22 11:00									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	1300		1.0		ug/L		04/27/22 09:33	04/28/22 09:53	1

		_
	noral Chamistry	Conor
	eneral Chemistry	Genera

Client Sample ID: MW7-220420

Client Sample ID: MW5-220420

Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		3.0		mg/L		-	05/04/22 15:40	1
Sulfate	ND		5.0		mg/L			05/04/22 15:40	1
Ammonia as N	ND		0.030		mg/L			05/05/22 10:30	1
Total Alkalinity	140		10		mg/L			04/27/22 21:15	1
Bicarbonate Alkalinity	140		10		mg/L			04/27/22 21:15	1
Carbonate Alkalinity	ND		10		mg/L			04/27/22 21:15	1
Total Organic Carbon - Average	1.8		1.0		mg/L			04/27/22 01:08	1

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND	3.0	mg/L			05/04/22 15:55	1
Sulfate	7.1	5.0	mg/L			05/04/22 15:55	1
Ammonia as N	ND	0.030	mg/L			05/02/22 15:40	1
Total Alkalinity	78	10	mg/L			04/27/22 21:20	1
Bicarbonate Alkalinity	78	10	mg/L			04/27/22 21:20	1
Carbonate Alkalinity	ND	10	mg/L			04/27/22 21:20	1
Total Organic Carbon - Average	ND	1.0	mg/L			04/27/22 02:24	1

Client Sample ID: SW6-220420 Date Collected: 04/20/22 13:50								Lab Sam	ple ID: 280-16 Matrix:	
	Date Received: 04/22/22 11:00									
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	3.3		3.0		mg/L			05/04/22 16:10	1

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Lab Sample ID: 280-161400-1

Lab Sample ID: 280-161400-2

Client: Aspect Consulting Job ID: 280-161400-1

General Chemistry (Continued)

Project/Site: Hansville Landfill

Client Sample ID: SW6-220420 Lab Sample ID: 280-161400-3

Date Collected: 04/20/22 13:50 **Matrix: Water** Date Received: 04/22/22 11:00

Analyte Result Qualifier RL **MDL** Unit D Dil Fac Prepared Analyzed Sulfate 5.0 05/04/22 16:10 ND mg/L ND Ammonia as N 0.030 05/02/22 14:55 mg/L **Total Alkalinity** 46 10 mg/L 04/27/22 21:26 10 **Bicarbonate Alkalinity** 46 mg/L 04/27/22 21:26 Carbonate Alkalinity ND 10 mg/L 04/27/22 21:26 22 1.0 mg/L 04/27/22 02:40

Client Sample ID: SW4-220420 Lab Sample ID: 280-161400-4 **Matrix: Water**

Date Collected: 04/20/22 13:00 Date Received: 04/22/22 11:00

Total Organic Carbon - Average

Date Received: 04/22/22 11:00						
Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Chloride	10	3.0	mg/L	 _	05/04/22 17:10	1
Sulfate	17	5.0	mg/L		05/04/22 17:10	1
Ammonia as N	ND	0.030	mg/L		05/05/22 10:48	1
Total Alkalinity	130	10	mg/L		04/27/22 21:32	1
Bicarbonate Alkalinity	130	10	mg/L		04/27/22 21:32	1
Carbonate Alkalinity	ND	10	mg/L		04/27/22 21:32	1
Total Organic Carbon - Average	9.7	1.0	mg/L		04/27/22 02:55	1

Client Sample ID: SW1-220420 Lab Sample ID: 280-161400-5 **Matrix: Water**

Date Collected: 04/20/22 14:50

Date Received: 04/22/22 11:00								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	9.4	3.0		mg/L			05/04/22 17:56	1
Sulfate	17	5.0		mg/L			05/04/22 17:56	1
Ammonia as N	ND	0.030		mg/L			05/05/22 11:12	1
Total Alkalinity	100	10		mg/L			04/27/22 21:50	1
Bicarbonate Alkalinity	100	10		mg/L			04/27/22 21:50	1
Carbonate Alkalinity	ND	10		mg/L			04/27/22 21:50	1
Total Organic Carbon - Average	2.7	1.0		mg/L			04/27/22 03:11	1

Client Sample ID: SW7-220420 Lab Sample ID: 280-161400-6 Date Collected: 04/20/22 16:05 **Matrix: Water**

Date Received: 04/22/22 11:00

Date Received. 04/22/22 11.00									
Analyte	Result Q	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		3.0		mg/L			05/04/22 18:11	1
Sulfate	7.8		5.0		mg/L			05/04/22 18:11	1
Ammonia as N	ND		0.030		mg/L			05/05/22 11:14	1
Total Alkalinity	57		10		mg/L			04/27/22 21:56	1
Bicarbonate Alkalinity	57		10		mg/L			04/27/22 21:56	1
Carbonate Alkalinity	ND		10		mg/L			04/27/22 21:56	1
Total Organic Carbon - Average	9.2		1.0		mg/L			04/27/22 03:25	1

Client Sample ID: MW13D-220420 Lab Sample ID: 280-161400-7 Date Collected: 04/20/22 13:25 **Matrix: Water**

Date Received: 04/22/22 11:00	D	0	D.	MDI	1114		B	A	D11 F
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		3.0		mg/L			05/04/22 18:26	1
Sulfate	15		5.0		mg/L			05/04/22 18:26	1
Ammonia as N	ND		0.030		mg/L			05/05/22 11:06	1

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Client: Aspect Consulting Job ID: 280-161400-1 Project/Site: Hansville Landfill

General Chemistry (Continued)

Client Sample ID: MW13D-220420 Lab Sample ID: 280-161400-7

Date Collected: 04/20/22 13:25 **Matrix: Water** Date Received: 04/22/22 11:00

Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	73		10		mg/L			04/27/22 22:01	1
Bicarbonate Alkalinity	73		10		mg/L			04/27/22 22:01	1
Carbonate Alkalinity	ND		10		mg/L			04/27/22 22:01	1
Total Organic Carbon - Average	ND		1.0		mg/L			04/27/22 03:39	1

Lab Sample ID: 280-161400-8 Client Sample ID: MW12I-220420 Date Collected: 04/20/22 14:45 **Matrix: Water**

Date Received: 04/22/22 11:00

Date Received. 04/22/22 11.00									
Analyte	Result (Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		3.0		mg/L			05/04/22 18:41	1
Sulfate	5.7		5.0		mg/L			05/04/22 18:41	1
Ammonia as N	ND		0.030		mg/L			05/02/22 15:08	1
Total Alkalinity	70		10		mg/L			04/27/22 22:07	1
Bicarbonate Alkalinity	70		10		mg/L			04/27/22 22:07	1
Carbonate Alkalinity	ND		10		mg/L			04/27/22 22:07	1
Total Organic Carbon - Average	2.0		1.0		mg/L			04/27/22 03:54	1

Client Sample ID: MW6-220420 Lab Sample ID: 280-161400-9 **Matrix: Water**

Date Collected: 04/20/22 16:50

Date Received: 04/22/22 11:00							
Analyte	Result Qualifie	r RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.8	3.0	mg/L			05/04/22 18:56	1
Sulfate	25	5.0	mg/L			05/04/22 18:56	1
Ammonia as N	ND	0.030	mg/L			05/02/22 15:27	1
Total Alkalinity	140	10	mg/L			04/27/22 22:13	1
Bicarbonate Alkalinity	140	10	mg/L			04/27/22 22:13	1
Carbonate Alkalinity	ND	10	mg/L			04/27/22 22:13	1
Total Organic Carbon - Average	1.4	1.0	mg/L			04/27/22 04:08	1

Lab Sample ID: 280-161400-10 Client Sample ID: MW14-220421 Date Collected: 04/21/22 08:20 **Matrix: Water**

Date Paceived: 04/22/22 11:00

Date Received: 04/22/22 11:00						
Analyte	Result Qualifier	RL	MDL Unit	D Prepared	Analyzed	Dil Fac
Chloride	3.6	3.0	mg/L		05/04/22 19:11	1
Sulfate	7.0	5.0	mg/L		05/04/22 19:11	1
Ammonia as N	ND F2 F1	0.030	mg/L		05/02/22 16:17	1
Total Alkalinity	93	10	mg/L		04/27/22 22:19	1
Bicarbonate Alkalinity	93	10	mg/L		04/27/22 22:19	1
Carbonate Alkalinity	ND	10	mg/L		04/27/22 22:19	1
Total Organic Carbon - Average	2.5	1.0	mg/L		04/27/22 04:24	1

Client Sample ID: MW20DD-220421 Lab Sample ID: 280-161400-11 **Matrix: Water**

Date Collected: 04/21/22 07:00

Analyzed	Dil Fac
05/05/22 02:25	1
05/05/22 02:25	1
05/02/22 15:32	1
04/27/22 22:24	1
04/27/22 22:24	1
	05/05/22 02:25 05/05/22 02:25 05/02/22 15:32 04/27/22 22:24

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Client Sample Results

Client: Aspect Consulting Job ID: 280-161400-1 Project/Site: Hansville Landfill

General Chemistry (Continued)

Client Sample ID: MW20DD-220421 Lab Sample ID: 280-161400-11 Date Collected: 04/21/22 07:00

Matrix: Water

Date Received: 04/22/22 11:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbonate Alkalinity	ND		10		mg/L			04/27/22 22:24	1
Total Organic Carbon - Average	1.8		1.0		mg/L			04/27/22 05:13	1

Surrogate Summary

Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

Matrix: Water Prep Type: Total/NA

		DBFM	TBA	ent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	
280-161400-1	MW7-220420	118	101	
280-161400-2	MW5-220420	117	97	
280-161400-3	SW6-220420	115	91	
280-161400-4	SW4-220420	118	97	
280-161400-5	SW1-220420	118	108	
280-161400-6	SW7-220420	116	91	
280-161400-7	MW13D-220420	115	101	
280-161400-8	MW12I-220420	117	99	
280-161400-9	MW6-220420	117	91	
280-161400-10	MW14-220421	118	90	
280-161400-11	MW20DD-220421	115	100	
280-161400-12	TB1-220421	115	99	
480-197268-I-3 MS	Matrix Spike	105	81	
480-197268-I-3 MSD	Matrix Spike Duplicate	107	84	
LCS 480-624035/6	Lab Control Sample	107	103	
LCSD 480-624035/7	Lab Control Sample Dup	104	110	
MB 480-624035/9	Method Blank	112	101	

DBFM = Dibromofluoromethane (Surr)

TBA = TBA-d9 (Surr)

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Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: 8260C SIM - Volatile Organic Compounds (GC/MS)

MB MB

Lab Sample ID: MB 480-624035/9

Matrix: Water

Analysis Batch: 624035

Client Sample ID: Method	Blank
Prep Type: Total	:al/NA

Result Qualifier RL **MDL** Unit Analyzed Dil Fac Analyte D Prepared 05/01/22 20:52 Vinyl chloride ND 0.020 ug/L

MB MB Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac Dibromofluoromethane (Surr) 112 50 - 150 05/01/22 20:52 TBA-d9 (Surr) 101 50 - 150 05/01/22 20:52

Lab Sample ID: LCS 480-624035/6 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 624035

Spike LCS LCS %Rec Added Limits **Analyte** Result Qualifier Unit D %Rec 0.200 50 - 150 Vinyl chloride 0.143 ug/L

LCS LCS Surrogate %Recovery Qualifier Limits 50 - 150 Dibromofluoromethane (Surr) 107 TBA-d9 (Surr) 103 50 - 150

Lab Sample ID: LCSD 480-624035/7 **Client Sample ID: Lab Control Sample Dup Matrix: Water** Prep Type: Total/NA

Analysis Batch: 624035

	Spike	LCSD	LCSD				%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Vinyl chloride	 0.200	0.148		ug/L		74	50 - 150	3	20

LCSD LCSD %Recovery Qualifier Limits Surrogate 50 - 150 Dibromofluoromethane (Surr) 104 TBA-d9 (Surr) 110 50 - 150

Lab Sample ID: 480-197268-I-3 MS Client Sample ID: Matrix Spike Prep Type: Total/NA

Matrix: Water

Analysis Batch: 624035

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	105		50 - 150
TBA-d9 (Surr)	81		50 - 150

Client Sample ID: Matrix Spike Duplicate Lab Sample ID: 480-197268-I-3 MSD **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 624035

	พรบ	IVISU	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	107		50 - 150
TBA-d9 (Surr)	84		50 - 150

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Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 280-572917/1-A

Matrix: Water

Analysis Batch: 573194

Client Sample ID: Method Blank **Prep Type: Total Recoverable Prep Batch: 572917** MB MB

Result Qualifier RL **MDL** Unit D Analyzed Dil Fac Analyte Prepared 1.0 04/26/22 10:05 04/27/22 15:22 Manganese ND ug/L

Lab Sample ID: LCS 280-572917/2-A

Matrix: Water

Analyte

Manganese

Analysis Batch: 573194

Lab Sample ID: MB 280-573064/1-A

Spike

Sample Sample

Sample Sample

Sample Sample

Result Qualifier

490

Result Qualifier

490

Result Qualifier

Added 40.0

Spike

Added

40.0

Spike

Added

40.0

Spike

Added

40.0

Spike

Added

40.0

418

RL

1.0

Result Qualifier

MDL Unit

LCS LCS

MS MS

514 4

MSD MSD

537 4

MS MS

41.0

Result Qualifier

Result Qualifier

Result Qualifier

35.4

Result Qualifier

ug/L

Unit

ug/L

Unit

ug/L

Unit

ug/L

Unit

ug/L

LCS LCS

ug/L

Unit D %Rec

> **Prep Type: Total Recoverable** Prep Batch: 573064

> > Analyzed

Prep Type: Total Recoverable

Prep Batch: 572917

Client Sample ID: Lab Control Sample

%Rec

Limits

85 - 117

04/27/22 09:33 04/28/22 09:33

Client Sample ID: Lab Control Sample

%Rec

Limits 85 - 117

Client Sample ID: Method Blank

105

Prepared

%Rec

%Rec

D %Rec

56

114

%Rec

103

Prep Type: Total Recoverable

Matrix: Water Analysis Batch: 573292

MB MB

Analyte Result Qualifier $\overline{\mathsf{ND}}$ Manganese

Lab Sample ID: LCS 280-573064/2-A **Matrix: Water**

Analysis Batch: 573292

Analyte

Lab Sample ID: 280-161320-D-8-B MS

Manganese

Manganese

Analyte

Matrix: Water Analysis Batch: 573194

Analyte

Manganese Lab Sample ID: 280-161320-D-8-C MSD

Matrix: Water

Analysis Batch: 573194

Analyte

Lab Sample ID: 280-161333-A-2-D MS **Matrix: Water**

Analysis Batch: 573226

Manganese NΩ

Lab Sample ID: 280-161333-A-2-E MSD **Matrix: Water**

Analysis Batch: 573226

Analyte

Sample Sample Result Qualifier Manganese

ND

Spike Added 40.0

MSD MSD Result Qualifier

42.1

Unit ug/L

%Rec 105

Limits 85 - 117

85 - 117

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Dil Fac

Client Sample ID: Matrix Spike Prep Type: Dissolved

Prep Batch: 572917 %Rec

Prep Batch: 573064

Limits 85 - 117

Client Sample ID: Matrix Spike Duplicate Prep Type: Dissolved

Prep Batch: 572917 %Rec **RPD**

Limits **RPD** Limit 85 - 117

Client Sample ID: Matrix Spike

Prep Type: Dissolved Prep Batch: 573064

%Rec Limits

Prep Type: Dissolved Prep Batch: 573064 %Rec **RPD**

> **RPD** Limit

Client: Aspect Consulting Project/Site: Hansville Landfill

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 280-573801/39

Matrix: Water

Analysis Batch: 573801

Client Sample ID: Method Blank **Prep Type: Total/NA**

MB MB Analyte Result Qualifier RL **MDL** Unit D Analyzed Dil Fac Prepared Chloride ND 3.0 mg/L 05/04/22 19:56 Sulfate ND 5.0 mg/L 05/04/22 19:56

Lab Sample ID: MB 280-573801/6 **Matrix: Water**

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Type: Total/NA

Analysis Batch: 573801

MB MB Analyte Result Qualifier RL **MDL** Unit Prepared Analyzed Dil Fac Chloride ND 3.0 mg/L 05/04/22 11:22 Sulfate ND 5.0 05/04/22 11:22 mg/L

Lab Sample ID: LCS 280-573801/37 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

Analysis Batch: 573801

Spike LCS LCS %Rec Added Result Qualifier Unit Analyte D %Rec Limits Chloride 100 102 102 90 - 110 mg/L Sulfate 100 102 102 mg/L 90 - 110

Lab Sample ID: LCS 280-573801/4 Client Sample ID: Lab Control Sample

Matrix: Water

Analysis Batch: 573801

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Chloride 100 99.7 mg/L 100 90 - 110 Sulfate 100 99.9 mg/L 100 90 - 110

Lab Sample ID: LCSD 280-573801/38 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 573801

Spike LCSD LCSD %Rec **RPD** Analyte Added Result Qualifier Unit %Rec Limits **RPD** Limit Chloride 100 101 mg/L 101 90 - 110 10 Sulfate 100 102 102 90 - 110 mg/L 10

Lab Sample ID: LCSD 280-573801/5 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 573801

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier %Rec RPD **Analyte** Unit Limits Limit Chloride 100 99.8 mg/L 100 90 - 110 0 10 Sulfate 100 99.9 mg/L 100 90 - 110

Lab Sample ID: MRL 280-573801/3 **Client Sample ID: Lab Control Sample**

Matrix: Water

Analysis Batch: 573801

•	S	Spike M	RL MRL			%Rec	
Analyte	A	dded Res	ult Qualifier	Unit D	%Rec	Limits	
Chloride		5.00 4.	72	mg/L	94	50 - 150	
Sulfate		5.00	ND	mg/L	89	50 - 150	

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Prep Type: Total/NA

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Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 280-161400-3 MS Client Sample ID: SW6-220420

Matrix: Water

Analysis Batch: 573801

	Sample Sample	Spike	MS	MS				%Rec	
Analyte	Result Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	3.3	50.0	55.4		mg/L		104	80 - 120	
Sulfate	ND	50.0	56.5		ma/L		104	80 - 120	

Lab Sample ID: 280-161400-3 MSD Client Sample ID: SW6-220420 **Matrix: Water Prep Type: Total/NA**

Analysis Batch: 573801

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Chloride	3.3		50.0	56.2		mg/L		106	80 - 120	2	20
Sulfate	ND		50.0	57.4		mg/L		106	80 - 120	2	20

Lab Sample ID: 280-161400-11 MS Client Sample ID: MW20DD-220421 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 573801

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	3.9		50.0	56.4		mg/L		105	80 - 120	
Sulfate	7.6		50.0	60.6		mg/L		106	80 - 120	

Lab Sample ID: 280-161400-11 MSD Client Sample ID: MW20DD-220421 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 573801

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	3.9		50.0	57.6		mg/L		107	80 - 120	2	20	
Sulfate	7.6		50.0	61.8		mg/L		108	80 - 120	2	20	

Lab Sample ID: 280-161400-3 DU Client Sample ID: SW6-220420 Matrix: Water **Prep Type: Total/NA**

Analysis Batch: 573801

Analysis balch: 5/3001								
-	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Chloride	3.3		3.29		mg/L		 0.2	15
Sulfate	ND		ND		mg/L		NC	15

Lab Sample ID: 280-161400-11 DU Client Sample ID: MW20DD-220421 **Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 573801

Analysis Baton: 070001	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Chloride	3.9		 3.94		mg/L		 0.1	15
Sulfate	7.6		7.63		mg/L		0.05	15

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5/26/2022

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

Client Sample ID: MW14-220421

Client Sample ID: MW14-220421

Client Sample ID: MW20DD-220421

Client Sample ID: MW20DD-220421

Client: Aspect Consulting

Project/Site: Hansville Landfill

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-573617/125

Matrix: Water

Analysis Batch: 573617

MB MB

Result Qualifier RL **MDL** Unit Analyzed Dil Fac Analyte D Prepared 05/02/22 16:15 Ammonia as N ND 0.030 mg/L

Lab Sample ID: MB 280-573617/90

Matrix: Water

Analysis Batch: 573617

MB MB

MDL Unit Result Qualifier RL Prepared Analyzed Dil Fac Analyte 0.030 05/02/22 14:41 Ammonia as N ND mg/L

Lab Sample ID: LCS 280-573617/124

Matrix: Water

Analysis Batch: 573617

Spike LCS LCS %Rec Added Result Qualifier Limits Analyte Unit %Rec Ammonia as N 2.50 2.51 90 - 110 mg/L

Lab Sample ID: LCS 280-573617/89

Matrix: Water

Analysis Batch: 573617

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Ammonia as N 2.50 2.51 mg/L 101 90 - 110

Lab Sample ID: 280-161400-10 MS

Matrix: Water

Analysis Batch: 573617

Sample Sample Spike MS MS %Rec Result Qualifier Added Limits Analyte Result Qualifier Unit %Rec ND F2 F1 1.00 1.09 109 90 - 110 Ammonia as N mg/L

Lab Sample ID: 280-161400-10 MSD

Matrix: Water

Analysis Batch: 573617

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier **RPD** Analyte Unit %Rec Limits Limit ND F2 F1 1 00 Ammonia as N 1.59 F1 F2 mg/L 159 90 - 110 37

Lab Sample ID: 280-161400-11 MS

Matrix: Water

Analysis Batch: 573617

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Limits Analyte Unit %Rec Ammonia as N ND 1.00 1.09 mg/L 109 90 - 110

Lab Sample ID: 280-161400-11 MSD

Matrix: Water

Analysis Batch: 573617

Spike MSD MSD %Rec **RPD** Sample Sample Result Qualifier Added Limits Analyte Result Qualifier Unit %Rec RPD Limit Ammonia as N 90 - 110 ND 1.00 1.10 mg/L 110

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Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 280-574030/20 Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 574030

MB MB

Result Qualifier RL **MDL** Unit Analyzed Dil Fac Analyte Prepared 0.030 05/05/22 10:28 Ammonia as N ND mg/L

Lab Sample ID: LCS 280-574030/18 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 574030

Spike LCS LCS %Rec Added Result Qualifier D %Rec Limits Analyte Unit 2.50 90 - 110 Ammonia as N 2.51 mg/L 101

Lab Sample ID: LCSD 280-574030/19 Client Sample ID: Lab Control Sample Dup Prep Type: Total/NA

Matrix: Water

Analysis Batch: 574030

Spike LCSD LCSD %Rec **RPD** Added Result Qualifier Limits RPD Limit Analyte Unit %Rec Ammonia as N 2.50 2.54 102 90 - 110 mg/L

Lab Sample ID: 280-161400-1 MS Client Sample ID: MW7-220420 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 574030

Spike MS MS %Rec Sample Sample Analyte Result Qualifier Added Result Qualifier Unit %Rec Limits 1.00 1.02 90 - 110 Ammonia as N ND mg/L 102

Lab Sample ID: 280-161400-1 MSD

Matrix: Water

Analysis Batch: 574030

MSD MSD RPD Sample Sample Spike %Rec Analyte Result Qualifier Added Limits Result Qualifier Unit %Rec Limit ND 1.00 0.985 99 90 - 110 Ammonia as N mg/L

Lab Sample ID: 280-161400-7 MS

Matrix: Water

Analysis Batch: 574030

Sample Sample Spike MS MS %Rec Result Qualifier Added Result Qualifier Analyte Unit D %Rec Limits 1.00 Ammonia as N ND 1 04 mg/L 104 90 - 110

Lab Sample ID: 280-161400-7 MSD

Matrix: Water

Analysis Batch: 574030

Sample Sample Spike MSD MSD %Rec **RPD** Result Qualifier Added Result Qualifier D Limits RPD Limit Analyte Unit %Rec ND 102 Ammonia as N 1.00 1.02 mg/L 90 - 110

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Prep Type: Total/NA

Client Sample ID: MW7-220420

Client Sample ID: MW13D-220420

Client Sample ID: MW13D-220420

Prep Type: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 280-573241/58

Matrix: Water

Analysis Batch: 573241

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		10		mg/L			04/27/22 16:57	1
Bicarbonate Alkalinity	ND		10		mg/L			04/27/22 16:57	1
Carbonate Alkalinity	ND		10		mg/L			04/27/22 16:57	1

Lab Sample ID: MB 280-573241/6

Matrix: Water

Analysis Batch: 573241

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND		10		mg/L			04/27/22 10:51	1
Bicarbonate Alkalinity	ND		10		mg/L			04/27/22 10:51	1
Carbonate Alkalinity	ND		10		mg/L			04/27/22 10:51	1

Lab Sample ID: MB 280-573241/84

Matrix: Water

Analysis Batch: 573241

	MR M	IB						
Analyte	Result Q	ualifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity	ND	10		mg/L			04/27/22 20:23	1
Bicarbonate Alkalinity	ND	10		mg/L			04/27/22 20:23	1
Carbonate Alkalinity	ND	10		mg/L			04/27/22 20:23	1

Lab Sample ID: LCS 280-573241/83

Matrix: Water

Analysis Batch: 573241

7 man, 500 = attorn 51 5= 11								
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Alkalinity		202		ma/l		101	89 - 109	

Lab Sample ID: LCSD 280-573241/5

Matrix: Water

Analysis Batch: 573241

,										
	Spike	LCSD	LCSD				%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Total Alkalinity	200	199		ma/l		100	89 - 109		10	

Lab Sample ID: 280-161362-A-4 DU

Matrix: Water

Analysis Batch: 573241

Allalysis Datcil. 3/3241								
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Total Alkalinity	390		389		mg/L		 0.3	10
Bicarbonate Alkalinity	390		389		mg/L		0.3	20
Carbonate Alkalinity	ND		ND		mg/L		NC	20

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Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Client Sample ID: Duplicate

QC Sample Results

Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 280-573105/21 **Client Sample ID: Method Blank Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 573105

MB MB

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Average	ND -	1.0	mg/L			04/26/22 20:52	1

Lab Sample ID: LCS 280-573105/20 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 573105

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Organic Carbon - Average	25.0	25.9		mg/L		104	88 - 112	

Lab Sample ID: 280-161400-1 MS Client Sample ID: MW7-220420 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 573105

Analysis Dateil. 070100										
	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Organic Carbon - Average	1.8		25.0	26.8		mg/L		100	88 - 112	

Lab Sample ID: 280-161400-1 MSD Client Sample ID: MW7-220420 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 573105

•	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Total Organic Carbon - Average	1.8		25.0	27.0		mg/L		101	88 - 112	1	15

Client: Aspect Consulting Job ID: 280-161400-1 Project/Site: Hansville Landfill

GC/MS VOA

Analysis Batch: 624035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-1	MW7-220420	Total/NA	Water	8260C SIM	
280-161400-2	MW5-220420	Total/NA	Water	8260C SIM	
280-161400-3	SW6-220420	Total/NA	Water	8260C SIM	
280-161400-4	SW4-220420	Total/NA	Water	8260C SIM	
280-161400-5	SW1-220420	Total/NA	Water	8260C SIM	
280-161400-6	SW7-220420	Total/NA	Water	8260C SIM	
280-161400-7	MW13D-220420	Total/NA	Water	8260C SIM	
280-161400-8	MW12I-220420	Total/NA	Water	8260C SIM	
280-161400-9	MW6-220420	Total/NA	Water	8260C SIM	
280-161400-10	MW14-220421	Total/NA	Water	8260C SIM	
280-161400-11	MW20DD-220421	Total/NA	Water	8260C SIM	
280-161400-12	TB1-220421	Total/NA	Water	8260C SIM	
MB 480-624035/9	Method Blank	Total/NA	Water	8260C SIM	
LCS 480-624035/6	Lab Control Sample	Total/NA	Water	8260C SIM	
LCSD 480-624035/7	Lab Control Sample Dup	Total/NA	Water	8260C SIM	
480-197268-I-3 MS	Matrix Spike	Total/NA	Water	8260C SIM	
480-197268-I-3 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C SIM	

Metals

Prep Batch: 572917

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-1	MW7-220420	Dissolved	Water	3005A	
280-161400-2	MW5-220420	Dissolved	Water	3005A	
280-161400-3	SW6-220420	Dissolved	Water	3005A	
280-161400-4	SW4-220420	Dissolved	Water	3005A	
280-161400-5	SW1-220420	Dissolved	Water	3005A	
280-161400-6	SW7-220420	Dissolved	Water	3005A	
280-161400-7	MW13D-220420	Dissolved	Water	3005A	
MB 280-572917/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-572917/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-161320-D-8-B MS	Matrix Spike	Dissolved	Water	3005A	
280-161320-D-8-C MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Prep Batch: 573064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-8	MW12I-220420	Dissolved	Water	3005A	
280-161400-9	MW6-220420	Dissolved	Water	3005A	
280-161400-10	MW14-220421	Dissolved	Water	3005A	
280-161400-11	MW20DD-220421	Dissolved	Water	3005A	
MB 280-573064/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 280-573064/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
280-161333-A-2-D MS	Matrix Spike	Dissolved	Water	3005A	
280-161333-A-2-E MSD	Matrix Spike Duplicate	Dissolved	Water	3005A	

Analysis Batch: 573166

Lab S	Sample ID	Client Sample ID	Prep Type	Matrix	Method P	rep Batch
280-1	61400-1	MW7-220420	Dissolved	Water	6020	572917
280-1	61400-2	MW5-220420	Dissolved	Water	6020	572917
280-1	61400-3	SW6-220420	Dissolved	Water	6020	572917
280-1	61400-4	SW4-220420	Dissolved	Water	6020	572917

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Client: Aspect Consulting

Job ID: 280-161400-1

Project/Site: Hansville Landfill

Metals (Continued)

Analysis Batch: 573166 (Continued)

La	ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
28	30-161400-5	SW1-220420	Dissolved	Water	6020	572917
28	30-161400-6	SW7-220420	Dissolved	Water	6020	572917
28	30-161400-7	MW13D-220420	Dissolved	Water	6020	572917

Analysis Batch: 573194

Lab Sample ID MB 280-572917/1-A	Client Sample ID Method Blank	Prep Type Total Recoverable	Matrix Water	Method 6020	Prep Batch 572917
LCS 280-572917/2-A	Lab Control Sample	Total Recoverable	Water	6020	572917
280-161320-D-8-B MS	Matrix Spike	Dissolved	Water	6020	572917
280-161320-D-8-C MSD	Matrix Spike Duplicate	Dissolved	Water	6020	572917

Analysis Batch: 573226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161333-A-2-D MS	Matrix Spike	Dissolved	Water	6020	573064
280-161333-A-2-E MSD	Matrix Spike Duplicate	Dissolved	Water	6020	573064

Analysis Batch: 573292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-8	MW12I-220420	Dissolved	Water	6020	573064
280-161400-9	MW6-220420	Dissolved	Water	6020	573064
280-161400-10	MW14-220421	Dissolved	Water	6020	573064
280-161400-11	MW20DD-220421	Dissolved	Water	6020	573064
MB 280-573064/1-A	Method Blank	Total Recoverable	Water	6020	573064
LCS 280-573064/2-A	Lab Control Sample	Total Recoverable	Water	6020	573064

General Chemistry

Analysis Batch: 573105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-1	MW7-220420	Total/NA	Water	SM 5310B	
280-161400-2	MW5-220420	Total/NA	Water	SM 5310B	
280-161400-3	SW6-220420	Total/NA	Water	SM 5310B	
280-161400-4	SW4-220420	Total/NA	Water	SM 5310B	
280-161400-5	SW1-220420	Total/NA	Water	SM 5310B	
280-161400-6	SW7-220420	Total/NA	Water	SM 5310B	
280-161400-7	MW13D-220420	Total/NA	Water	SM 5310B	
280-161400-8	MW12I-220420	Total/NA	Water	SM 5310B	
280-161400-9	MW6-220420	Total/NA	Water	SM 5310B	
280-161400-10	MW14-220421	Total/NA	Water	SM 5310B	
280-161400-11	MW20DD-220421	Total/NA	Water	SM 5310B	
MB 280-573105/21	Method Blank	Total/NA	Water	SM 5310B	
LCS 280-573105/20	Lab Control Sample	Total/NA	Water	SM 5310B	
280-161400-1 MS	MW7-220420	Total/NA	Water	SM 5310B	
280-161400-1 MSD	MW7-220420	Total/NA	Water	SM 5310B	

Analysis Batch: 573241

Lab Sample ID 280-161400-1	Client Sample ID MW7-220420	Prep Type Total/NA	Matrix Water	Method SM 2320B	Prep Batch
280-161400-2	MW5-220420	Total/NA	Water	SM 2320B	
280-161400-3	SW6-220420	Total/NA	Water	SM 2320B	
280-161400-4	SW4-220420	Total/NA	Water	SM 2320B	

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Client: Aspect Consulting Job ID: 280-161400-1 Project/Site: Hansville Landfill

General Chemistry (Continued)

Analysis Batch: 573241 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-5	SW1-220420	Total/NA	Water	SM 2320B	
280-161400-6	SW7-220420	Total/NA	Water	SM 2320B	
280-161400-7	MW13D-220420	Total/NA	Water	SM 2320B	
280-161400-8	MW12I-220420	Total/NA	Water	SM 2320B	
280-161400-9	MW6-220420	Total/NA	Water	SM 2320B	
280-161400-10	MW14-220421	Total/NA	Water	SM 2320B	
280-161400-11	MW20DD-220421	Total/NA	Water	SM 2320B	
MB 280-573241/58	Method Blank	Total/NA	Water	SM 2320B	
MB 280-573241/6	Method Blank	Total/NA	Water	SM 2320B	
MB 280-573241/84	Method Blank	Total/NA	Water	SM 2320B	
LCS 280-573241/83	Lab Control Sample	Total/NA	Water	SM 2320B	
LCSD 280-573241/5	Lab Control Sample Dup	Total/NA	Water	SM 2320B	
280-161362-A-4 DU	Duplicate	Total/NA	Water	SM 2320B	

Analysis Batch: 573617

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-2	MW5-220420	Total/NA	Water	350.1	<u> </u>
280-161400-3	SW6-220420	Total/NA	Water	350.1	
280-161400-8	MW12I-220420	Total/NA	Water	350.1	
280-161400-9	MW6-220420	Total/NA	Water	350.1	
280-161400-10	MW14-220421	Total/NA	Water	350.1	
280-161400-11	MW20DD-220421	Total/NA	Water	350.1	
MB 280-573617/125	Method Blank	Total/NA	Water	350.1	
MB 280-573617/90	Method Blank	Total/NA	Water	350.1	
LCS 280-573617/124	Lab Control Sample	Total/NA	Water	350.1	
LCS 280-573617/89	Lab Control Sample	Total/NA	Water	350.1	
280-161400-10 MS	MW14-220421	Total/NA	Water	350.1	
280-161400-10 MSD	MW14-220421	Total/NA	Water	350.1	
280-161400-11 MS	MW20DD-220421	Total/NA	Water	350.1	
280-161400-11 MSD	MW20DD-220421	Total/NA	Water	350.1	

Analysis Batch: 573801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
280-161400-1	MW7-220420	Total/NA	Water	300.0	<u> </u>
280-161400-2	MW5-220420	Total/NA	Water	300.0	
280-161400-3	SW6-220420	Total/NA	Water	300.0	
280-161400-4	SW4-220420	Total/NA	Water	300.0	
280-161400-5	SW1-220420	Total/NA	Water	300.0	
280-161400-6	SW7-220420	Total/NA	Water	300.0	
280-161400-7	MW13D-220420	Total/NA	Water	300.0	
280-161400-8	MW12I-220420	Total/NA	Water	300.0	
280-161400-9	MW6-220420	Total/NA	Water	300.0	
280-161400-10	MW14-220421	Total/NA	Water	300.0	
280-161400-11	MW20DD-220421	Total/NA	Water	300.0	
MB 280-573801/39	Method Blank	Total/NA	Water	300.0	
MB 280-573801/6	Method Blank	Total/NA	Water	300.0	
CS 280-573801/37	Lab Control Sample	Total/NA	Water	300.0	
CS 280-573801/4	Lab Control Sample	Total/NA	Water	300.0	
CSD 280-573801/38	Lab Control Sample Dup	Total/NA	Water	300.0	
CSD 280-573801/5	Lab Control Sample Dup	Total/NA	Water	300.0	
MRL 280-573801/3	Lab Control Sample	Total/NA	Water	300.0	

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Client: Aspect Consulting

Job ID: 280-161400-1

Project/Site: Hansville Landfill

General Chemistry (Continued)

Analysis Batch: 573801 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-3 MS	SW6-220420	Total/NA	Water	300.0	
280-161400-3 MSD	SW6-220420	Total/NA	Water	300.0	
280-161400-11 MS	MW20DD-220421	Total/NA	Water	300.0	
280-161400-11 MSD	MW20DD-220421	Total/NA	Water	300.0	
280-161400-3 DU	SW6-220420	Total/NA	Water	300.0	
280-161400-11 DU	MW20DD-220421	Total/NA	Water	300.0	

Analysis Batch: 574030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-161400-1	MW7-220420	Total/NA	Water	350.1	
280-161400-4	SW4-220420	Total/NA	Water	350.1	
280-161400-5	SW1-220420	Total/NA	Water	350.1	
280-161400-6	SW7-220420	Total/NA	Water	350.1	
280-161400-7	MW13D-220420	Total/NA	Water	350.1	
MB 280-574030/20	Method Blank	Total/NA	Water	350.1	
LCS 280-574030/18	Lab Control Sample	Total/NA	Water	350.1	
LCSD 280-574030/19	Lab Control Sample Dup	Total/NA	Water	350.1	
280-161400-1 MS	MW7-220420	Total/NA	Water	350.1	
280-161400-1 MSD	MW7-220420	Total/NA	Water	350.1	
280-161400-7 MS	MW13D-220420	Total/NA	Water	350.1	
280-161400-7 MSD	MW13D-220420	Total/NA	Water	350.1	

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Project/Site: Hansville Landfill

Client Sample ID: MW7-220420

Date Collected: 04/20/22 09:10 Date Received: 04/22/22 11:00

Client: Aspect Consulting

Lab Sample ID: 280-161400-1

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/01/22 22:16	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	572917	04/26/22 10:05	PFM	TAL DEN
Dissolved	Analysis	6020		1			573166	04/26/22 18:46	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 15:40	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	574030	05/05/22 10:30	JJM	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 21:15	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 01:08	ABW	TAL DEN

Client Sample ID: MW5-220420

Date Collected: 04/20/22 10:40 Date Received: 04/22/22 11:00

Lab Sample ID: 280-161400-2

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/01/22 22:44	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	572917	04/26/22 10:05	PFM	TAL DEN
Dissolved	Analysis	6020		1			573166	04/26/22 18:50	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 15:55	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	573617	05/02/22 15:40	MMP	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 21:20	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 02:24	ABW	TAL DEN

Client Sample ID: SW6-220420

Date Collected: 04/20/22 13:50

Date Received: 04/22/22 11:00

Lab Sample ID: 280-161400-4

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/01/22 23:12	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	572917	04/26/22 10:05	PFM	TAL DEN
Dissolved	Analysis	6020		1			573166	04/26/22 18:54	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 16:10	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	573617	05/02/22 14:55	MMP	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 21:26	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 02:40	ABW	TAL DEN

Client Sample ID: SW4-220420

Date Collected: 04/20/22 13:00

Date Received: 04/22/22 11:00

	Batch	Batch	_	Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/01/22 23:40	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	572917	04/26/22 10:05	PFM	TAL DEN
Dissolved	Analysis	6020		1			573166	04/26/22 18:57	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 17:10	RAF	TAL DEN

Eurofins Denver

Matrix: Water

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Client: Aspect Consulting Project/Site: Hansville Landfill

Client Sample ID: SW4-220420 Date Collected: 04/20/22 13:00

Lab Sample ID: 280-161400-4

Matrix: Water

Date Received: 04/22/22 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	574030	05/05/22 10:48	JJM	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 21:32	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 02:55	ABW	TAL DEN

Lab Sample ID: 280-161400-5 Client Sample ID: SW1-220420

Date Collected: 04/20/22 14:50 **Matrix: Water**

Date Received: 04/22/22 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 00:08	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	572917	04/26/22 10:05	PFM	TAL DEN
Dissolved	Analysis	6020		1			573166	04/26/22 19:01	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 17:56	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	574030	05/05/22 11:12	JJM	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 21:50	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 03:11	ABW	TAL DEN

Lab Sample ID: 280-161400-6 Client Sample ID: SW7-220420

Date Collected: 04/20/22 16:05

Date Received: 04/22/22 11:00

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 00:36	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	572917	04/26/22 10:05	PFM	TAL DEN
Dissolved	Analysis	6020		1			573166	04/26/22 19:04	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 18:11	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	574030	05/05/22 11:14	JJM	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 21:56	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 03:25	ABW	TAL DEN

Client Sample ID: MW13D-220420

Date Collected: 04/20/22 13:25

Date Received: 04/22/22 11:00

_	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 01:04	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	572917	04/26/22 10:05	PFM	TAL DEN
Dissolved	Analysis	6020		1			573166	04/26/22 19:08	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 18:26	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	574030	05/05/22 11:06	JJM	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 22:01	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 03:39	ABW	TAL DEN

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Matrix: Water

Matrix: Water

Lab Sample ID: 280-161400-7

Client: Aspect Consulting Project/Site: Hansville Landfill

Client Sample ID: MW12I-220420

Date Collected: 04/20/22 14:45 Date Received: 04/22/22 11:00

Lab Sample ID: 280-161400-8

Matrix: Water

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 01:32	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	573064	04/27/22 09:33	MB	TAL DEN
Dissolved	Analysis	6020		1			573292	04/28/22 09:41	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 18:41	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	573617	05/02/22 15:08	MMP	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 22:07	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 03:54	ABW	TAL DEN

Client Sample ID: MW6-220420 Lab Sample ID: 280-161400-9 Date Collected: 04/20/22 16:50 **Matrix: Water**

Date Received: 04/22/22 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 02:00	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	573064	04/27/22 09:33	MB	TAL DEN
Dissolved	Analysis	6020		1			573292	04/28/22 09:45	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 18:56	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	573617	05/02/22 15:27	MMP	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 22:13	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 04:08	ABW	TAL DEN

Client Sample ID: MW14-220421 Lab Sample ID: 280-161400-10 Date Collected: 04/21/22 08:20 **Matrix: Water**

Date Received: 04/22/22 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 02:28	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	573064	04/27/22 09:33	MB	TAL DEN
Dissolved	Analysis	6020		1			573292	04/28/22 09:49	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/04/22 19:11	RAF	TAL DEN
Total/NA	Analysis	350.1		1	10 mL	10 mL	573617	05/02/22 16:17	MMP	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 22:19	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 04:24	ABW	TAL DEN

Lab Sample ID: 280-161400-11 Client Sample ID: MW20DD-220421 Date Collected: 04/21/22 07:00 **Matrix: Water**

Date Received: 04/22/22 11:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 02:56	CDC	TAL BUF
Dissolved	Prep	3005A			50 mL	50 mL	573064	04/27/22 09:33	MB	TAL DEN
Dissolved	Analysis	6020		1			573292	04/28/22 09:53	LMT	TAL DEN
Total/NA	Analysis	300.0		1	10 mL	10 mL	573801	05/05/22 02:25	RAF	TAL DEN

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Lab Chronicle

Client: Aspect Consulting Job ID: 280-161400-1

Project/Site: Hansville Landfill

Date Collected: 04/21/22 07:00 Matrix: Water Date Received: 04/22/22 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	350.1		1	10 mL	10 mL	573617	05/02/22 15:32	MMP	TAL DEN
Total/NA	Analysis	SM 2320B		1			573241	04/27/22 22:24	KEG	TAL DEN
Total/NA	Analysis	SM 5310B		1	20 mL	20 mL	573105	04/27/22 05:13	ABW	TAL DEN

Client Sample ID: TB1-220421 Lab Sample ID: 280-161400-12

Date Collected: 04/20/22 09:10 Matrix: Water

Date Received: 04/22/22 11:00

	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C SIM		1	25 mL	25 mL	624035	05/02/22 03:24	CDC	TAL BUF

Laboratory References:

SC0056 = Analytical Resources, Inc, 4611 South 134th Place, Suite 100, Tukwila, WA 98168, TEL (206)695-6200 TAL BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600 TAL DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

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10 May 2022

Betsy Sara Eurofins - Test America - Denver 4955 Yarrow Street Arvada, CO 80002

RE: Hansville (28006013-2Q/3Q/4Q Sampling)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)

Associated SDG ID(s)

22D0347

N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, LLC

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Shelly Fishel, Project Manager

Thelly & Fisher

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4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

Chain of Custody Record

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Phone (303) 736-0100 Fax (303) 431-7171

Arvada, CO 80002 4955 Yarrow Street

Eurofins TestAmerica, Denver

Environment Testing

seuronns :

estAmerica

N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - HZSO4
T - TSO Dodecahydrate
U - Acetone Diss As,NO3,NO2,o-phos subbed direct to ARI Special Instructions/Note: V - MCAA W - ph 4-5 Z - other (specify) Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Mont Preservation Codes: COC No: 280-23414-6845.1 G - Amchlor H - Ascorbic Acid C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH J - DI Water A - HCL B - NaOH K-EDTA L-EDA Job #: 04/21/20/ Total Number of containers Method of Shipment Carrier Tracking No(s). Analysis Requested Special Instructions/QC Requirements: Nitrate/Nitrite (IC) - direct sub to ARI IRA of dus treenice - direct sub to ARI Ortho-phosphate (field filtered)- direct sub to ARI E-Mail: Betsy.Sara@Eurofinset.com S Received by Vinyl Chloride (TA Buffalo) Lab PM: Sara, Betsy A erform MS/MSD (Yes or No) Time: Company BT=Tissue, A=Air Preservation Code: (W=water, S=solid, O=waste/oil, Matrix Type (C=comp, Radiological G=grab) Sample 2008 413 SYOK 3/6 Project #:skip sites/events 28006013 - 2Q/3Q/4Q Sampling Po #: Purchase Order not required 1328 300 SOS 975 (20) Ynoha onic 080 Sample 2 3 Time 1650 Sampler, +CM Date: TAT Requested (days): Unknown Due Date Requested: Sample Date 1/21/26 Date/Time: Poison B (Canaha d nlkaimahas Prosections with Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify) MW-130-220470 nour 220420 J24017 AW-ILT-22012 mw-7-220420 W-10-720172 MINI-2010-22-02 MNW-S-22047 D MW-10-270120 4W-14-22042 Flammable Project Name: Hansville Landfill Possible Hazard Identification Empty Kit Relinquished by: Company: Aspect Consulting, LLC Client Information Sample Identification In Contact. 350 Madison Ave N ーカーかっ Bainbridge Island Non-Hazard 11-MS State, Zip: WA, 98110 Washington hone:

Sooler Temperature(s) °C and Other Remarks:

Received by:

Company

Date/Time:

Custody Seal No.

Custody Seals Intact:

elinquished by:

nquished by:

Page 2 of 32 22D0347 ARISample FINAL 10 May 2022 2016

ompany

Date/Time:

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Analytical Report

Eurofins - Test America - DenverProject: Hansville4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-7-220420	22D0347-01	Water	20-Apr-2022 09:10	21-Apr-2022 13:16
MW-5-220420	22D0347-02	Water	20-Apr-2022 10:40	21-Apr-2022 13:16
SW-6-220420	22D0347-03	Water	20-Apr-2022 13:50	21-Apr-2022 13:16
SW-4-220420	22D0347-04	Water	20-Apr-2022 13:00	21-Apr-2022 13:16
SW-1-220420	22D0347-05	Water	20-Apr-2022 14:50	21-Apr-2022 13:16
SW-7-220420	22D0347-06	Water	20-Apr-2022 16:05	21-Apr-2022 13:16
MW-13D-220420	22D0347-07	Water	20-Apr-2022 13:25	21-Apr-2022 13:16
MW-12I-220420	22D0347-08	Water	20-Apr-2022 14:45	21-Apr-2022 13:16
MW-6-220420	22D0347-09	Water	20-Apr-2022 16:50	21-Apr-2022 13:16
MW-14-220421	22D0347-10	Water	21-Apr-2022 08:20	21-Apr-2022 13:16
MW-20DD-220421	22D0347-11	Water	21-Apr-2022 07:00	21-Apr-2022 13:16

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Analytical Report

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported: Arvada CO, 80002 10-May-2022 20:16 Project Manager: Betsy Sara

Work Order Case Narrative

Client: Eurofins - Test America - Denver

Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling

Work Order: 22D0347

Sample receipt

Sample(s) as listed on the preceding page were received 21-Apr-2022 13:16 under ARI work order 22D0347. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Dissolved Metals - EPA Method 200.8

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

Wet Chemistry

The sample(s) were prepared and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The duplicate (DUP) relative percent difference (RPD) were within advisory control limits. The matrix spike (MS) percent recoveries were within advisory control limits except Orthophosphorus which was out of control low and has been flagged.

A - L-1:1 B 116
Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Aspect / Euro	ofns Test America Denver	Project Name: Hansi	lille Landt	î II
COC No(s):	(NA)	Delivered by: Fed-Ex UPS Couri	ier Hand Delivered	Other:
Assigned ARI Job No: 221	00347	Tracking No:		NA)
Preliminary Examination Phase:				
Were intact, properly signed and	dated custody seals attached to the	outside of the cooler?	YES	NO
Were custody papers included wi	th the cooler?		YES	NO
STATE OF STATE OF STATE	ed out (ink, signed, etc.)		YES	NO
Time 1316		1.2		
If cooler temperature is out of con	ppliance fill out form 00070F	7.4	Temp Gun ID#:	1009708
Cooler Accepted by			1314	
Log-In Phase:	Complete custody forms and a	ttach all snipping documents		
Was a temperature blan kinclud What kind of packing material Was sufficientice used (if appro How were bottles sealed in plast Did all bottles arrive in good con Were all bottle labels complete a Did the number of containers list Did all bottle labels and tags agr Were all bottles used correct for Do any of the analyses (bottles) Were all VOC vials free of air but Was sufficient amount of sample	priate)?	Vet Ice Gel Packs Baggies Foam I	NA Individually	YES NO Grouped Not YES NO
	** Notify Project Manager of c	discrepancies or concerns **		
Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample II	D on COC
		Andrew Control of the		
Additional Notes, Discrepanci	es. & Resolutions:		<u> </u>	
By: Da	ite:			

0016F 01/17/2018 Cooler Receipt Form

Revision 014A



Printed: 4/21/2022 2:58:46PM

WORK ORDER

22D0347

Samples will be discarded 90 days after submission of a final report unless other instructions are received.

Client: Eurofins - Test America - Denver Project Manager: Shelly Fishel

Project: Hansville Project Number: 28006013-2Q/3Q/4Q Sampling

Container ID Container Type pH 22D0347-01 A Miscellaneous Container 22D0347-01 B Miscellaneous Container 22D0347-01 C Miscellaneous Container 22D0347-02 A Miscellaneous Container 22D0347-02 B Miscellaneous Container 22D0347-02 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-04 A Miscellaneous Container 22D0347-04 A Miscellaneous Container 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous Container 22D0347-05 A Miscellaneous Container F	
22D0347-01 B Miscellaneous Container 22D0347-01 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-02 A Miscellaneous Container 22D0347-02 B Miscellaneous Container 22D0347-02 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-03 C Miscellaneous Container 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous Container 22D0347-04 C Miscellaneous Container 22D0347-04 C Miscellaneous Container	
22D0347-01 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-02 A Miscellaneous Container 22D0347-02 B Miscellaneous Container 22D0347-02 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-03 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous Container 22D0347-04 C Miscellaneous Container	
22D0347-02 A Miscellaneous Container 22D0347-02 B Miscellaneous Container 22D0347-02 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-03 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous Container 22D0347-04 C Miscellaneous Container	
22D0347-02 A Miscellaneous Container 22D0347-02 B Miscellaneous Container 22D0347-02 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-03 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous Container 22D0347-04 C Miscellaneous Container	
22D0347-02 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-03 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-03 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-03 A Miscellaneous Container 22D0347-03 B Miscellaneous Container 22D0347-03 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-03 C Miscellaneous container, 1:1 HN03 (FF) 22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-04 A Miscellaneous Container 22D0347-04 B Miscellaneous Container 22D0347-04 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-04 C Miscellaneous container, 1:1 HN03 (FF)	
	——————————————————————————————————————
22D0347-05 B Miscellaneous Container	
22D0347-05 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-06 A Miscellaneous Container	**
22D0347-06 B Miscellaneous Container	
22D0347-06 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-07 A Miscellaneous Container	
22D0347-07 B Miscellaneous Container	
22D0347-07 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-08 A Miscellaneous Container FF	
22D0347-08 B Miscellaneous Container	**************************************
22D0347-08 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-09 A Miscellaneous Container FF	
22D0347-09 B Miscellaneous Container	
22D0347-09 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-10 A Miscellaneous Container	
22D0347-10 B Miscellaneous Container	
22D0347-10 C Miscellaneous container, 1:1 HN03 (FF)	
22D0347-11 A Miscellaneous Container FF	
22D0347-11 B Miscellaneous Container	
22D0347-11 C Miscellaneous container, 1:1 HN03 (FF)	



Eurofins - Test America - Denver

Analytical Report

Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

MW-7-220420 22D0347-01 (Water)

Metals and Metallic Compounds (dissolved)

 Method: EPA 200.8 UCT-KED
 Sampled: 04/20/2022 09:10

 Instrument: ICPMS1
 Analyst: SKD

 Analyzed: 05/10/2022 00:49

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Extract ID: 22D0347-01 C 01

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 1.19 ug/L

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Analytical Report

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported:
Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

MW-7-220420 22D0347-01 (Water)

Wet Chemistry

Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/20/2022 09:10

 Instrument: IC930 Analyst: BF
 Analyst: BF

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BKD0658 Sample Size: 10 mL

Extract ID: 22D0347-01 A

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 0.209 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 0.100 ND mg/L U Reporting Detection Limit Analyte CAS Number Dilution Limit Result Notes

1426-44-42

0.12

mg-P/L

0.10

0.10

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

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Analytical Report

Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

> MW-5-220420 22D0347-02 (Water)

Metals and Metallic Compounds (dissolved)

Method: EPA 200.8 UCT-KED Sampled: 04/20/2022 10:40 Instrument: ICPMS1 Analyst: SKD Analyzed: 05/10/2022 00:53

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-02 C 01 Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Sample Preparation:

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 1.79 ug/L

Analytical Report

Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

MW-5-220420 22D0347-02 (Water)

Wet	Che	mist	·v
***	CIIC	1111311	·.y

Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/20/2022 10:40

 Instrument: IC930 Analyst: BF
 Analyst: BF

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-02 A
Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 2.35 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 0.100 ND mg/L U Reporting Detection Limit Analyte CAS Number Dilution Limit Result Notes

1426-44-42

0.10

0.10

0.10

mg-P/L

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Analytical Report

Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

> SW-6-220420 22D0347-03 (Water)

Metals and Metallic Compounds (dissolved)

Method: EPA 200.8 UCT-KED Sampled: 04/20/2022 13:50 Instrument: ICPMS1 Analyst: SKD Analyzed: 05/10/2022 00:56

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-03 C 01 Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Sample Preparation:

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022

Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 2.59 ug/L

mg-P/L

ND

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported:
Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

SW-6-220420 22D0347-03 (Water)

Wet	Cher	nistry
***	CHU	111341 9

Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/20/2022 13:50

 Instrument: IC930 Analyst: BF
 Analyst: BF

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-03 A
Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 ND 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 U 0.100 ND mg/L Reporting Detection Limit Analyte CAS Number Dilution Limit Result Notes

1426-44-42

0.10

0.10



Eurofins - Test America - Denver Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

> SW-4-220420 22D0347-04 (Water)

Metals and Metallic Compounds (dissolved)

Method: EPA 200.8 UCT-KED Sampled: 04/20/2022 13:00 Instrument: ICPMS1 Analyst: SKD Analyzed: 05/10/2022 01:54

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-04 C 01 Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Sample Preparation:

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 1.82 ug/L

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number:28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager:Betsy Sara10-May-2022 20:16

SW-4-220420 22D0347-04 (Water)

Wet	Che	mistry

 Method: EPA 300.0
 Sampled: 04/20/2022 13:00

 Instrument: IC930 Analyst: BF
 Analyzed: 04/21/2022 20:03

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem
Preparation Batch: BKD0658 Sample Size: 10 mL

Extract ID: 22D0347-04 A

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 0.782 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 0.100 ND mg/L U Reporting Detection

Analyte CAS Number Dilution Limit Limit Result Units Notes
Orthophosphorus 1426-44-42 1 0.10 0.10 ND mg-P/L U



Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

SW-1-220420 22D0347-05 (Water)

Metals and Metallic Compounds (dissolved)

 Method: EPA 200.8 UCT-KED
 Sampled: 04/20/2022 14:50

 Instrument: ICPMS1
 Analyst: SKD

 Analyzed: 05/10/2022 01:58

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Extract ID: 22D0347-05 C 01

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 0.943 Arsenic, Dissolved 0.0373 0.200 ug/L

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Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

SW-1-220420 22D0347-05 (Water)

Wet	Che	mistry
1100	CIIC	

Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/20/2022 14:50

 Instrument: IC930 Analyst: BF
 Analyzed: 04/21/2022 21:03

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-05 A
Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

			Detection	Reporting			
Analyte	CAS Number	Dilution	Limit	Limit	Result	Units	Notes
Nitrate-N	14797-55-8	1	0.100	0.100	3.57	mg/L	
			Detection	Reporting			
Analyte	CAS Number	Dilution	Limit	Limit	Result	Units	Notes
Nitrite-N	14797-65-0	1	0.100	0.100	ND	mg/L	U
			Detection	Reporting			
Analyte	CAS Number	Dilution	Limit	Limit	Result	Units	Notes

1426-44-42

0.10

0.10

ND

mg-P/L

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Analytical Report

Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

> SW-7-220420 22D0347-06 (Water)

Metals and Metallic Compounds (dissolved)

Method: EPA 200.8 UCT-KED Sampled: 04/20/2022 16:05 Instrument: ICPMS1 Analyst: SKD Analyzed: 05/10/2022 02:01

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-06 C 01 Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Sample Preparation:

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes

7440-38-2 Arsenic, Dissolved 0.0373 0.200 1.43 ug/L



Eurofins - Test America - Denver Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

SW-7-220420 22D0347-06 (Water)

Wet Chemistry

Method: EPA 300.0 Sampled: 04/20/2022 16:05 Instrument: IC930 Analyst: BF Analyzed: 04/21/2022 21:23

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-06 A Preparation Method: No Prep Wet Chem Sample Preparation: Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 0.960 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 0.100 ND mg/L U Reporting Detection

Limit Analyte CAS Number Dilution Limit Result Notes 1426-44-42 mg-P/L Orthophosphorus 0.10 0.10 ND



Eurofins - Test America - Denver Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

> MW-13D-220420 22D0347-07 (Water)

Metals and Metallic Compounds (dissolved)

Method: EPA 200.8 UCT-KED Sampled: 04/20/2022 13:25 Instrument: ICPMS1 Analyst: SKD Analyzed: 05/10/2022 02:16

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-07 C 01 Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Sample Preparation:

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 5.35 ug/L



mg-P/L

ND

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported:
Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

MW-13D-220420 22D0347-07 (Water)

Wet	Che	mistry
1100	CIIC	

Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/20/2022 13:25

 Instrument: IC930 Analyst: BF
 Analyzed: 04/21/2022 21:43

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-07 A
Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 ND 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 U 0.100 ND mg/L Reporting Detection Limit Analyte CAS Number Dilution Limit Result Notes

1426-44-42

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Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

MW-12I-220420 22D0347-08 (Water)

Metals and Metallic Compounds (dissolved)

 Method: EPA 200.8 UCT-KED
 Sampled: 04/20/2022 14:45

 Instrument: ICPMS1 Analyst: SKD
 Analyzed: 05/10/2022 02:20

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Extract ID: 22D0347-08 C 01

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 2.47 ug/L

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mg-P/L

ND

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported:
Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

MW-12I-220420 22D0347-08 (Water)

Wet	Ch	emistry	
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Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/20/2022 14:45

 Instrument: IC930 Analyst: BF
 Analyzed: 04/21/2022 22:03

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-08 A

Preparation Batch: BKD0658 Sample Size: 10 mL Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 ND 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 U 0.100 ND mg/L Reporting Detection Limit Analyte CAS Number Dilution Limit Result Notes

1426-44-42

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Eurofins - Test America - Denver Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

> MW-6-220420 22D0347-09 (Water)

Metals and Metallic Compounds (dissolved)

Method: EPA 200.8 UCT-KED Sampled: 04/20/2022 16:50 Instrument: ICPMS1 Analyst: SKD Analyzed: 05/10/2022 02:23

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-09 C 01 Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Sample Preparation:

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 1.72 ug/L

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

MW-6-220420 22D0347-09 (Water)

Wet	Ch	emistry
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 Method: EPA 300.0
 Sampled: 04/20/2022 16:50

 Instrument: IC930 Analyst: BF
 Analyzed: 04/21/2022 22:23

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-09 A
Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 0.100 4.86 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 0.320 0.100 mg/L Reporting Detection

Analyte CAS Number Dilution Limit Limit Result Units Notes

Orthophosphorus 1426-44-42 1 0.10 0.10 ND mg-P/L U

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Analytical Report

Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported:

Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

MW-14-220421 22D0347-10 (Water)

Metals and Metallic Compounds (dissolved)

 Method: EPA 200.8 UCT-KED
 Sampled: 04/21/2022 08:20

 Instrument: ICPMS1
 Analyst: SKD

 Analyzed: 05/10/2022 02:27

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Extract ID: 22D0347-10 C 01

Preparation Batch: BKE0066 Sample Size: 25 mL

Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes 7440-38-2 Arsenic, Dissolved 0.0373 0.200 14.1 ug/L

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mg-P/L

ND

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

MW-14-220421 22D0347-10 (Water)

Wet Chemistry

Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/21/2022 08:20

 Instrument: IC930 Analyst: BF
 Analyzed: 04/21/2022 22:43

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-10 A
Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

Detection Reporting Limit Limit Units Analyte CAS Number Dilution Result Notes Nitrate-N 14797-55-8 0.100 ND 0.100 mg/L Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes Nitrite-N 14797-65-0 0.100 U 0.100 ND mg/L Reporting Detection Limit Analyte CAS Number Dilution Limit Result Notes

1426-44-42

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0.10

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Eurofins - Test America - Denver Project: Hansville

Project Number: 28006013-2Q/3Q/4Q Sampling 4955 Yarrow Street Reported: Project Manager: Betsy Sara Arvada CO, 80002 10-May-2022 20:16

> MW-20DD-220421 22D0347-11 (Water)

Metals and Metallic Compounds (dissolved)

Method: EPA 200.8 UCT-KED Sampled: 04/21/2022 07:00 Instrument: ICPMS1 Analyst: SKD Analyzed: 05/10/2022 02:30

Analysis by: Analytical Resources, LLC

Extract ID: 22D0347-11 C 01 Preparation Method: REN EPA 600/4-79-020 4.1.4 HNO3 matrix Sample Preparation:

Preparation Batch: BKE0066 Sample Size: 25 mL Prepared: 05/03/2022 Final Volume: 25 mL

Detection Reporting Analyte CAS Number Dilution Limit Limit Result Units Notes

7440-38-2 Arsenic, Dissolved 0.0373 0.200 14.7 ug/L



mg-P/L

ND

0.10

0.10

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number: 28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager: Betsy Sara10-May-2022 20:16

MW-20DD-220421 22D0347-11 (Water)

Wet Chemistry	y
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Orthophosphorus

 Method: EPA 300.0
 Sampled: 04/21/2022 07:00

 Instrument: IC930 Analyst: BF
 Analysed: 04/21/2022 23:03

Analysis by: Analytical Resources, LLC

Sample Preparation: Preparation Method: No Prep Wet Chem Extract ID: 22D0347-11 A
Preparation Batch: BKD0658 Sample Size: 10 mL

Prepared: 04/21/2022 Final Volume: 10 mL

			Detection	Reporting			
Analyte	CAS Number	Dilution	Limit	Limit	Result	Units	Notes
Nitrate-N	14797-55-8	1	0.100	0.100	ND	mg/L	U
			Detection	Reporting			
Analyte	CAS Number	Dilution	Limit	Limit	Result	Units	Notes
Nitrite-N	14797-65-0	1	0.100	0.100	ND	mg/L	U
			Detection	Reporting			
Analyte	CAS Number	Dilution	Limit	Limit	Result	Units	Notes

1426-44-42

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Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds (dissolved) - Quality Control

Batch BKE0066 - REN EPA 600/4-79-020 4.1.4 HNO3 matrix

Instrument: ICPMS1 Analyst: SKD

Eurofins - Test America - Denver

QC Sample/Analyte	Isotope	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BKE0066-BLK1)					Prep	ared: 03-May	y-2022 An	alyzed: 10-	May-2022 (00:42		
Arsenic, Dissolved	75a	ND	0.0373	0.200	ug/L							U
LCS (BKE0066-BS1)					Prep	ared: 03-May	y-2022 An	alyzed: 10-	May-2022 (00:46		
Arsenic, Dissolved	75a	25.6	0.0373	0.200	ug/L	25.0		103	80-120			

Analytical Report

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow StreetProject Number:28006013-2Q/3Q/4Q SamplingReported:Arvada CO, 80002Project Manager:Betsy Sara10-May-2022 20:16

Analysis by: Analytical Resources, LLC

Wet Chemistry - Quality Control

Batch BKD0658 - No Prep Wet Chem

Instrument: IC930 Analyst: BF

		Detection	Reporting		Spike	Source		%REC		RPD	
QC Sample/Analyte	Result	Limit	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Blank (BKD0658-BLK1)				Prepa	ared: 21-Apı	:-2022 Ana	lyzed: 21-	Apr-2022 17	7:43		
Nitrate-N	ND	0.100	0.100	mg/L							U
Nitrite-N	ND	0.100	0.100	mg/L							U
Orthophosphorus	ND	0.10	0.10	mg-P/L							U
LCS (BKD0658-BS1)				Prepa	ared: 21-Apı	:-2022 Ana	lyzed: 21-	Apr-2022 18	8:03		
Nitrate-N	5.08	0.100	0.100	mg/L	5.00		102	90-110			
Nitrite-N	5.14	0.100	0.100	mg/L	5.00		103	90-110			
Orthophosphorus	4.58	0.10	0.10	mg-P/L	5.00		91.6	90-110			
Duplicate (BKD0658-DUP1)	S	ource: 22D	00347-01	Prepa	ared: 21-Apı	:-2022 Ana	lyzed: 21-	Apr-2022 18	8:43		
Nitrate-N	0.196	0.100	0.100	mg/L		0.209			6.42	20	
Nitrite-N	ND	0.100	0.100	mg/L		ND					U
Orthophosphorus	ND	0.10	0.10	mg-P/L		0.12					U
Matrix Spike (BKD0658-MS1)	S	ource: 22D	00347-01	Prepa	ared: 21-Apı	-2022 Ana	lyzed: 21-	Apr-2022 19	9:03		
Nitrate-N	2.20	0.100	0.100	mg/L	2.00	0.209	99.7	75-125			
Nitrite-N	1.74	0.100	0.100	mg/L	2.04	ND	85.3	75-125			
Orthophosphorus	1.27	0.10	0.10	mg-P/L	2.00	0.12	57.2	75-125			*

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported: Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

Certified Analyses included in this Report

Analyte	Certifications
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EPA 200.8 UCT-KED in Water

Arsenic-75a NELAP,WADOE,WA-DW,DoD-ELAP

EPA 300.0 in Water

Nitrate-N DoD-ELAP, WADOE, WA-DW, NELAP Nitrite-N DoD-ELAP, WADOE, WA-DW, NELAP Orthophosphorus DoD-ELAP, WADOE, WA-DW, NELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2023
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2022
WADOE	WA Dept of Ecology	C558	06/30/2022
WA-DW	Ecology - Drinking Water	C558	06/30/2022

Analytical Report

[2C]

Flagged value is not within established control limits.

Analytical Report

Eurofins - Test America - Denver Project: Hansville

4955 Yarrow Street Project Number: 28006013-2Q/3Q/4Q Sampling Reported:

Arvada CO, 80002 Project Manager: Betsy Sara 10-May-2022 20:16

Notes and Definitions

D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Indicates this result was quantified on the second column on a dual column analysis.

5

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13

Carrier Tracking No(s):

Ervironme t Testing

💸 eurofins

12rtATICILES

Chain of Custody Record

Eurofins TestAmerica, Denver

Phone (303) 736-0100 Fax (303) 431-7171

Arvada, CO 80002

4955 Yarrow Street

Diss As,NO3,NO2,o-phos subbed direct to ARI P - Na2O4S Q - Na2SO3 R - Na2S2SO3 S - H2SO4 T - TSP Dodecahydrate DEN Special Instructions/Note: Z - other (specify) U - Acetone V - MCAA W - ph 4-5 N - None O - AsNaO2 Months Sompany Company

 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

 □ Return To Client
 □ Disposal By Lab
 Archive For _____ Mon

 Special Instructions/QC Requirements:

 CFeg. reservation Codes COC No: 280-23414-6845.1 000 H - Ascorbic Acid C - Zn Acetate E - NaHSO4 F - MeOH G - Amchlor J - DI Water K - EDTA L - EDA Date/Time: 4/91122 Page: ;# qor 121 Total Number of containers 5.01 Date/Time: 280-161400 Chain of Custody Method of Shipment: Ö **Analysis Requested** Cooler Temperature(s) °C and Other Remarks: Nitrate/Nitrite (IC) - direct sub to ARI Ortho-phosphate (field filtered)- direct sub to ARI E-Mail: Betsy.Sara@Eurofinset.com teceived by: Received by: Received by: <u>ラ</u> 14 2260C SIM - Vinyl Chloride (TA Buffalo) Sara, Betsy A ertorm MS/MSD (Yes or No) Time: BT=Tissue, A=Air) Preservation Code: (W=water, S=solid, O=waste/oil, Matrix Company Company 3 Radiological (C=comp, G=grab) Sample Type S Project #:skip sites/events 28006013 - 2Q/3Q/4Q Sampling SSOW#: . neken Buh / Anlan PO#: Purchase Order not required 10,40 1350 0820 1325 5241 020 509/ $\mathcal{E}_{\mathcal{C}}$ 5010 Sample 025-413-540 Time Date: Unknown TAT Requested (days) Due Date Requested: 4/20122 Sample Date Mrsh Date/Time: Date/Time ₩O#; Poison B 8122851 mi Kamanan Qamertrankuthura Skin Irritant Vamahab Deliverable Requested: I, II, III, IV, Other (specify) 2522 -220420 Custody Seal No.: 9 220420 220420 074022-0 22022 22002 2047 22042 -22047 22022 Flammable Possible Hazard Identification Project Name: Hansville Landfill MW-2000-Quier Empty Kit Relinquished by: Aspect Consulting, LLC Client Information MW-14-Sample Identification 350 Madison Ave N MW-12I Non-Hazard Bainbridge Island C S-MW 7 Neilan NW-C elinquished by: 134 telinquished by: 510elinguished by: State, Zip: WA, 98110 Washington ient Contact: 3 3 3

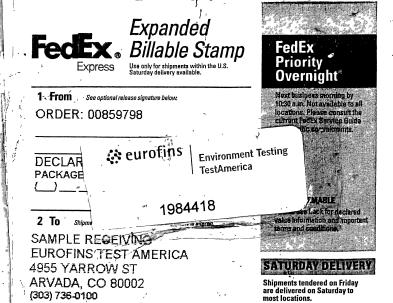
Environment Texting Textine ca 🛟 eurofins

Chain of Custody Record

Eurofins TestAmerica, Denver 4955 Yarrow Street Arvada, CO 80002 Phone (303) 736-0100 Fax (303) 431-7171

Client Information	Sampler: Communication of the	4	M	Lab PM: Sara, Betsy A	etsy A					Car	er Tracki	Carrier Tracking No(s):		COC No: 280-23414-6845.	4-6845.1		$\overline{}$
Client Conner - Lamen - Lamen 12	Phone:	13-540	708	E-Mail: Betsy.Sara@Eurofinset.com	ara@Eı	rofins	et.com							Page:			
Company: Aspect Consulting, LLC								Analy	Analysis Requested	adnes	sted			Job #:			
Address: 350 Madison Ave N	Due Date Requested:				_					_				Preservation Codes			
City: Bainbridge Island	TAT Requested (days):							17						A - HCL B - NaOH C - Zn Acetate		M - Hexane N - None O - AsNaO2	
State, Zip: WA, 98110	Ţ-							RA of d						D - Nitric Ac E - NaHSO4		- Na2O4S - Na2SO3	
Phone:	Po #: Purchase Order not required	ot required		(0				ect sul						G - Amchlor H - Ascorbic		- Nazszsos - H2SO4 - TSP Dodecahydrate	
Email: Walker Co. O. S. C.	WO#:			N 10 S	(oN			ıib -(b∉								U - Acetone V - MCAA	
ct Name: Hansville Lar	Project #:skip sites/events 28006013 - 2Q/3Q/4Q Sampling	ants 2/4Q Sampl	ing	:ə人) ə _l	to sə			a filtere						K-EDTA L-EDA	≥ N	/ - ph 4-5 - other (specify)	
Site: Washington	SSOW#:			gms	ap (v	s		oləñ) ə		up - (c				other:			
	Sample Date	Sample (Sample (w. Type (secomp, cew Gegrab) BTETISS	Matrix (W=water, S=solid, O=waste/oil, G=BI=Tissue, A=Air)	Perform MS/M 8260C SIM - Vin	Dissolved Metal	Ammonia/TOC Alks/CI/SO4	Ortho-phosphat	Dissolved Arser Divate(Nitrite (N	ALD SECURITION (AL				Total Mumber	cial Instr	Special Instructions/Note:	Γ
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73			-)	-		+-			-				Diss As,NC	03,NO2,o-	Diss As,NO3,NO2,o-phos subbed direct to	2
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Possible Hazard Identification Non-Hazard Elammable Skin Irritant	Poison B		Radiological		Sampl □	l e Disposal (A f Return To Client	osal (A fee	may be	asse:	assessed if sam Disposal By Lab	sample:	are ret	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lah Holling Mon	than 1 m	onth) Months	
ssted: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:	Instru	ctions/	QC Re	quirem	ents:							T
Empty Kit Relinquished by:		Date:		Time:	ne:	l		\	_		Method	Method of Shipment:	발				Т
Relinquished by.	Date/Time: U/2	727	1057 Company	any	Rec	Received by:	. \	H	}	l		Date/Time:	\mathcal{L}	11 76%	00/	Company Off	· -
Relinquisher by:	Date/T/me:		Сотрапу	any	Rec	Received by:						Date/Time	ле:		<u>ŏ</u>		_
Relinquished by:	Date/Time:		Сотрапу	any	Rec	Received by:						Date/Time:	ле:		ŭ	Company	_
Custody Seals Intact: Custody Seal No.:					ပ္ပိ	ler Tem	oerature	(s) °C ar	Cooler Temperature(s) °C and Other Remarks:	Remark	ió						_
				15	14		11	12	11	10	9	8	7	6	4	3	1

Do Not Lift Using This Tag





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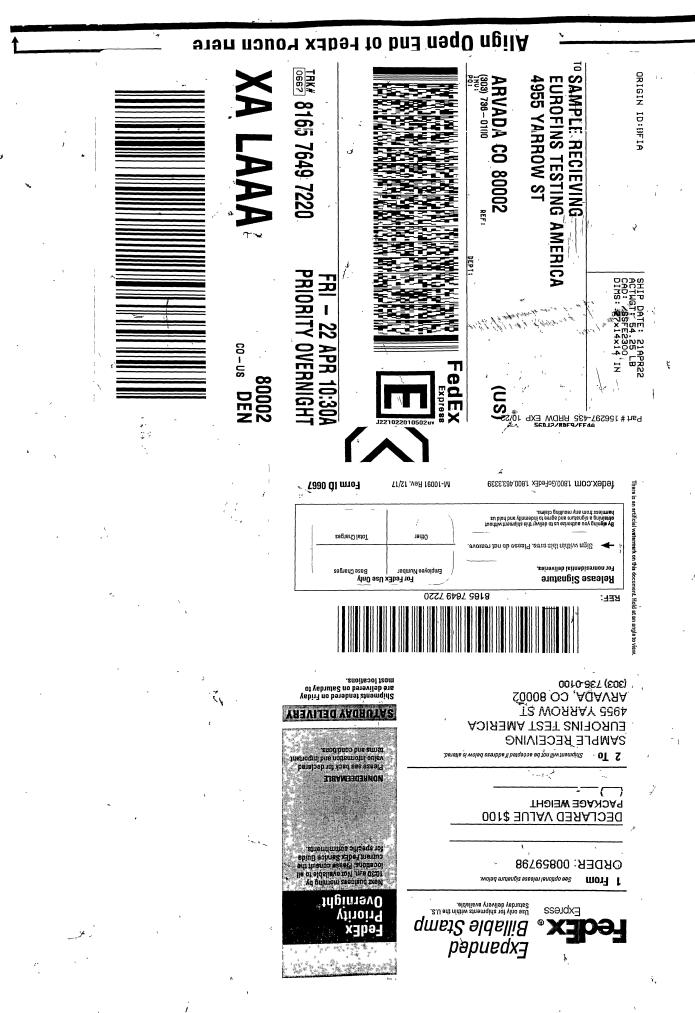
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	Release Signature	For FedEx	Use Only
l	For nonresidential deliveries.	Employee Number	Base Charges
7	Sign within this area. Please do not remove.	Other	Total Charges
	By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.	ř	<u>(</u>)

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10091 Rev. 12/17

Form ID 0667



Chain of Custody Record

Arvada, CO 80002 Phone: 303-736-0100 Fax: 303-431-7171

Eurofins Denver 4955 Yarrow Street

Client Information (Sub Contract Lah)				Lab Fin		(ن	Carrier Tracking No(s):	ng ivo(s).		COC No.		
Client Contact:	Phone				Collins, Janice S	SeS			1				280-611874.1	τ.	
Shipping/Receiving				Janice	e.Collin	c-maii. Janice.Collins@et.eurofinsus.com	ırofinsus	COM	is ≤	State of Origin: Washington	;; C		Page:		
Eurofins Environment Testing Northeast,					Accredita State D	Accreditations Required (See note):	uired (See	note):					qor #qor		
Address:	Due Date Requested:	ij				5		1000					280-161400-1	+	
10 Mazelwood Drive,	5/5/2022						1	Analysis Requested	Redu	ested			Preservation Codes:	Codes:	
Amherst	TAT Requested (days):	ys):				-							A - HCL B - NaOH	M - Hexane N - None	
State, Zip: NY, 14228-2298													C - Zn Acetate D - Nitric Acid	0 - AsNa02 P - Na204S	
Phone: 716-691-2600(Tel) 716-691-7991(Fax)	PO #:					pc							F - MeOH G - Amchlor	Q - Na2SO3 R - Na2S2O3 S - H2SO4	
Email:	MO#					Metho							H - Ascorbic Acid		ahydrate
Project Name: Hansville Landfill	Project #: 28006013					POC9			-			and a fi	K - EDTA	V - MCAA W - pH 4-5 Z - other (specify)	
Site: Hansville	SSOW#:					JOW) :						.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
			Sample	Matrix		1/20300						30 30 4		O.	
and the state of t		Sample	Type (C=comp,	(W=water, S=solid, O=waste/oil,	id Filte form A	0C_SIM						muN li			
Sample Identification - Cilent ID (Lab ID)	Sample Date	Time	G=grab) B	4		826		_						Special Instructions (Motor	
	\bigvee	X	Preservation Code:	on Code:	X									Melionania in in	Jie.
MW7-220420 (280-161400-1)	4/20/22	09:10 Pacific		Water		×							3		
MW5-220420 (280-161400-2)	4/20/22	10:40 Pacific		Water		×				+					
SW6-220420 (280-161400-3)	4/20/22	13:50 Pacific		Water		×		+	+				0 0		
SW4-220420 (280-161400-4)	4/20/22	13:00 Pacific		Water		×		-		-			0 0		
SW1-220420 (280-161400-5)	4/20/22	14:50 Pacific		Water		×		+		+			0 0		
SW7-220420 (280-161400-6)	4/20/22	16:05 Pacific		Water		×		+		+	+		0 6		
MW13D-220420 (280-161400-7)	4/20/22	13:25 Pacific		Water		×							0 6		
MW12I-220420 (280-161400-8)	4/20/22	14:45 Pacific		Water		×							0 6		
MW6-220420 (280-161400-9)	4/20/22	16:50		Water		×	\perp	1	+	+	+				
Note: Since laboratory accreditations are subject to change. Eurofins TestAmerica places the numeration of mathrd accreditations.	i places the ownership	Pacific				<							က		

maintain accreditation in the State of Origin listed above for analysis/testymental paces the ownersing of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently restAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica. Possible Hazard Identification

Possible Hazard Identification				
Unconfirmed		Sample Dispos	e may be assessed if samples	<u>(c</u>
		Return To Client	O Client Disposal By Lah	;
Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank: 2	Special Instructi	Requirements:	nths
Empty Kit Relinguished by:	0			
	Date.	Time:	Method of Shipment:	
Kelinduished by	L	The second		
Wool Da 22	SS/ 53/	Neceived by	M. W. L. L. Date/Time: U 76/12 Company	yur,
Reinquished by:	Date/Time:	Company		+
		Company Received by:	Date/Time: Company	any
Relinquished by:				
	Date/ Time:	Company Received by:	Date/Time: Company	any
Custody Seals Intact Custody Seal No				
Δ Yes Δ No		Cooler Temper	Cooler Temperature(s) °C and Other Remarks:	
			1) ++	

Arvada, CO 80002 Phone: 303-736-0100 Fax: 303-431-7171

Eurofins Denver 4955 Yarrow Street

💸 eurofins | Environment Testing | America

Figure Property	Client Information (Sub Contract Lab)	odilipier.		Lab PM:		Carr	Carrier Tracking No(s):	COC No.	
Procession of Particles Pa	Client Contact:	Phone:		Collins, Jar	ice S			280-611874.2	
Controller Carbon	Shipping/Receiving			Janice.Colli	ns@et.euro;		sof Origin:	Page:	
1000 1000	Company. Eurofins Environment Testing Northeast,			Accredii	ations Require			Job #:	
1.	Address: 10 Hazelwood Drive,	Due Date Requested: 5/5/2022		-				280-161400-1 Preservation Codes:	
Section Control Cont	City: Amherst	TAT Requested (days):				Analysis Keque	sted		xane
1972-2000 1976-591-7901 1980 1978 1978 1978 1970-197	State, ZIp. NY, 14228-2298								ne NaO2 204S
1	391-2600(Tel)	PO#			pc				2SSO3 2S2O3 SO4
Sample General Control Con	Email:	# OM			Meth			ъ	P Dodecahydrate etone
Sample demittedion - Client ID (Lab ID)	Project Name: Hansville Landfill	Project #: 28006013) Local			J - DI Water K - EDTA L - EDA	AA 14-5 er (specify)
Sample Identification - Client D (Lab ID) Sample Date Sample Identification - Client D (Lab ID) Sample	Site: Hansville	SSOW#:			dow) c			Other:	(abecily)
MV4-22047 (280-161400-10)	Sample Identification - Client ID (Lab ID)			S benetlii blei	Seoc_SIM/50300			to 1edmuM lsi	
MVA14-220421 (280-161400-10)		1	7 0	T E	:8				ions/Note:
Number Carbo-16 (400-15)	MW14-220421 (280-161400-10)	-	Wate	_	×				
TB1-220421 (280-161400-12)	MW20DD-220421 (280-161400-11)	-	Wate	-	×			7 (
Passible faces become are subject to charge. Euroffine Teach/merica places the conversity of method, analyse & accreditation compliance upon not autocontract televatives. This sample suppress is forwarded under chain-of-catalogy. If the laboratory does not currently often an object of charge. Euroffine Teach/merica places the conversity of method, analyse & accreditation compliance, upon not autocontract televatives. This sample suppress is forwarded under chain-of-catalogy. If the laboratory does not currently obtained to be a suppliance and chain of charges are retelement to claim of teachers are conversity of the	TB1-220421 (280-161400-12)	-	Wate		: ×			n (
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tote Since laboratory accreditations are subject to change. Exordina TestAhmerica places the coverectivity of method, analytic science and the control of the control of method analytic science and the control of the									
lote Since ubroatory accreditations are subject to change. Eurofine Test/merica abroatory accreditations are subject to change. Eurofine Test/merica abroatory accreditations are subject to change. Eurofine Test/merica abroatory or other instructions on the instructions will be provided. Any changes to accreditation shaus should be brought to Eurofine Test/merica abroatory or other instructions will be provided. Any changes to accreditation shaus should be brought to Eurofine Test/merica abroatory or other instructions will be provided. Any changes to accreditation shaus should be brought to Eurofine Test/merica abroatory or other instructions will be provided. Any changes to accreditation shaus should be brought to Eurofine Test/merica abroatory or other instructions of the i									
Possible Hazard Identification Third Since is boardoy Seals inflact: Custody								,	
tote Since laboratory accreditations are subject to change. Eurofinar TestAmenica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample suppressed accreditation in the Site of Origin listed above for analysis/leasts/matrix being analyzed, the samples must be shipped back to the Eurofina TestAmenica abendancy and the Site of Origin listed above for analysis/leasts/matrix being analyzed, the samples must be shipped back to the Eurofina TestAmenica abendancy and the Site of Origin listed above for analysis/leasts/matrix being analyzed, the samples must be shipped back to the Eurofina TestAmenica abendancy and the Eurofina Season of Contract (Special Institution) **Contract II.II.II.II.II.II.II.II.III.II.II.II.II									
Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, II, IV, Other (specify) Primary Deliverable Rank: 2 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Special Instructions/QC Requirements: Months Empty Kit Relinquished by: Relinquished by: A Yes A No. Date/Time: Company Company Received by: Received by: Bate/Time: Company Company Custody Seals Infact: A Yes A No. A Yes A No. Coulonger Remarks: A Yes A No. Company Company	Note: Since laboratory accreditations are subject to change, Eurofins Test maintain accreditation in the State of Origin listed above for analysis/tests. TestAmerica attention immediately. If all requested accreditations are cur	thmerica places the ownership of method, ar s/matrix being analyzed, the samples must be irrent to date, return the signed Chain of Cust.	nalyte & accreditation cor shipped back to the Eur ody attesting to said com	I I npliance upon ofins TestAme plicance to Eu	out subcontrac irica laboratory rofins TestAme	ct laboratories. This sample shij	oment is forwarded under chain	of-custody. If the laboratory doe	s not currently Eurofins
Primary Deliverable Rank: 2 Date:	Possible Hazard Identification			Sar	nple Dispos	sal (A fee may be asses	sed if samples are reta	ined longer than 1 month	
Date: Time: Time: Time: Method of Shipment: Time: Time: Method of Shipment: Date/Time: Da	Deliverable Requested: I, II, III, IV, Other (specify)	Primary Deliverable Rank 2			Return T	o Client Dispo	sal By Lab	chive For Moi	nths
Date: Time: Date: Time: Time: Method of Shipment: Date/Time: Date/Time: Company Received by: Date/Time: Date/Time: Company Received by: Date/Time: Date/Time: Company Received by: Date/Time: Date/Time	Empty Kit Relinguished by:			ădo 	scial instruct	tions/QC Requirements:			
Date/Time: Dat	Relinquished by:						Method of Shipment:		
Date/Time: Company Received by: Date/Time: A No Cooler Temperature(s) °C and Other Remarks: Date/Time:	Neo-Under Reinfurther hv	Den	Something St.	3	Received by:	291	Date/Time:	Compa	any
Sale Time: Company Received by: Date/Time: alls Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks:	Balinaniishad bu:	Date/Ime:	Company		Received by:		Date/Time:	Compa	any
Custody Seal No∴		Date/Time:	Company		Received by:		Date/Time:	Сотра	any
					Cooler Tempe	rature(s) °C and Other Remarks			

Client: Aspect Consulting Job Number: 280-161400-1

Login Number: 161400 List Source: Eurofins Denver

List Number: 1

Creator: Kazenga, Oliver M

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

Client: Aspect Consulting

Job Number: 280-161400-1

Login Number: 161400 List Number: 2

Creator: Kolb, Chris M

List Source: Eurofins Buffalo List Creation: 04/29/22 04:45 PM

Creator: Koid, Chris M		
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.7 ir gun #1 ice
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Eurofins Denver