



August 7, 2025

Mr. Michael Smith
Land Quality Bureau
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, IA 50321

**RE: Metro Park East – Phase II MSWLF Unit and Former CWTS
Permit No. #77-SDP-01-72P
July 2025 Verification Results and Monitoring Program Summary**

Dear Mr. Smith,

On behalf of Metro Waste Authority (MWA), HDR Engineering, Inc. (HDR) has prepared this letter to provide the Iowa Department of Natural Resources (IDNR) with laboratory analytical results from the July 16, 2025, verification monitoring event, and a summary of the monitoring program for the next compliance monitoring event at the Metro Park East (MPE) Phase II municipal solid waste landfill (MSWLF) Unit and Former Constructed Wetlands Treatment System (CWTS). Based on the analytical and statistical results from the Spring 2025 semiannual compliance monitoring event, zinc was detected above the upper prediction limit (UPL) at monitoring location MW-66. A verification monitoring event was conducted to evaluate if zinc at MW-66 exceeded the UPL when using the 1-of-2 verification sampling method. The July 2025 verification monitoring event field sampling form and laboratory analytical report are attached. The analytical concentrations of the original and verification samples, are summarized on the table below:

Sample Date	Zinc (mg/L) [MW-66]
Original Sample (April 2025)	0.0205
Verification Sample (July 2025)	0.0152 J
Interwell Upper Prediction Limit	0.02

Notes:

mg/L = milligrams per liter

Bold indicates a concentration that exceeds the interwell upper prediction limit.

J = Laboratory flag indicating result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value. These detections are not considered statistically significant detections.

The July 2025 verification event zinc concentration collected from monitoring well MW-66 is J-flagged and lower than the interwell upper prediction threshold of 0.02 mg/L. Since 1-of-2 sampling events indicate concentrations are below the UPL, a statistically significant increase (SSI) was not verified for zinc at MW-66. Since an SSI was not verified at monitoring location MW-66, this monitoring location will be maintained in the detection monitoring program for the fall 2025 semiannual monitoring event.



If there are any questions regarding this submittal, please do not hesitate to contact Richard Wilson at (402) 392-6714.

Sincerely,
HDR Engineering, Inc.

A handwritten signature in Bengali script, which reads 'সুদীপ্ত সারকার' (Sudipta Sarkar).

Sudipta Sarkar
Solid Waste EIT

A handwritten signature in cursive script, which reads 'Richard Wilson'.

Richard Wilson
Environmental Practice Manager (Solid Waste)

cc: Mr. Matthew Morris, Metro Waste Authority
Mr. Andrew Phillips, Metro Waste Authority

Low Stress Groundwater Sampling Data Sheet



Facility Name: <u>AW-001 MPIE</u>	Sampler Name(s): <u>ROW</u>
MW Identification: <u>MW-66</u>	Date/Time: <u>7-16-2025 /</u>
Sample Number: <u>2</u>	PID Readings: <u>N/A</u>
Weather Conditions: <u>Cloudy</u>	
Wellhead Inspection: <u>Good</u>	

Visual Inspection:

1. Survey Mark Present: (Yes/No)	<u>Yes</u> / <u>No</u>	5. Standing/Ponded Water (Yes/No)	<u>Yes</u> / <u>No</u>
2. Collision/Vandalism Damage: (Yes/No)	<u>Yes</u> / <u>No</u>	6. Frost Heaving (Yes/No)	<u>Yes</u> / <u>No</u>
3. Casing Degradation: (Yes/No)	<u>Yes</u> / <u>No</u>	7. Lock in Place (Yes/No)	<u>Yes</u> / <u>No</u>
4. Well Subsidence: (Yes/No)	<u>Yes</u> / <u>No</u>		

Ground Water Measurements/Purge data:

1. Static Water Level (±0.01 feet [ft.])	<u>15.64</u>	6. Purge Rate (mL/min)	<u>250</u>
2. Bottom of casing (±0.01 ft.)	<u>N/A</u>	7. Water Level Measuring Equip.	<u>Solinst</u>
3. Casing Diameter (inches)	<u>2"</u>	8. Purge Equipment Used	<u>Bladder</u>
4. Actual Volume of Water Purged (mL)		9. Dedicated? (Yes/No)	<u>Yes</u> / <u>No</u>
5. Purge Water Characteristics:		10. Immiscible layer observed	<u>Yes</u> / <u>No</u>
Odor <u>None</u>	Turbidity <u>low</u>	11. Thickness of immiscible layer	<u>N/A</u>
Color <u>None</u>		12. Drive Gas (Air/Nitrogen)	<u>AIR</u> / <u>NITROGEN</u> / <u>N/A</u>

Purge Start: 14:11

Time	Volume Purged (mL)	Temp (°C)	Conductivity (µs/cm)	ORP (mV)	D.O. (mg/L)	Turbidity (NTU)	pH	Drawdown
14:15	2500	13.1°	2932	112.6	1.76	2.34	6.56	15.24
14:18	1750	12.9°	2923	114.1	0.6	2.33	6.57	15.36
14:21	2500	12.9°	2917	115.8	0.21	2.37	6.57	15.45
14:24	3250	12.8°	2919	117.5	0.09	2.20	6.57	15.62
14:27	4000	13.4°	2908	119.2	0.23	2.74	6.56	15.71

Well evacuated to dryness?	<u>Yes</u> / <u>No</u>	Time to recharge (min):	<u>14:30</u>	9. Decontamination Procedures:	<u>Alconox/DI Rinse</u>
1. Sample Filtered?	<u>Yes</u> / <u>No</u>	6. Sample Time:	<u>14:30</u>	10. Instrument type: YSI ProDSS	
2. Sampling Equip. Used	<u>Bladder</u>	7. Parameter/Container/Pres.	<u>See Attached COC</u>	Calibration Date:	<u>LAB</u>
3. Drive Gas (Air/Nitrogen)	<u>AIR</u> / <u>NITROGEN</u> / <u>N/A</u>			Calibration Time:	<u>LAB</u>
4. Sample Rate (mL/min)	<u>250</u>			Std.	<u>Reading</u> <u>Adjust.</u>
5. Sample Appearance:		8. Other Information:		pH	
Turbidity	<u>low</u>			Conduct.	
Color	<u>None</u>			ORP	
Odor	<u>None</u>			D.O	
				Turbidity	

See attached Lab Form for Calibration Data

TB-1 7-16-2025/15:00



Calibrated at Geotech's Colorado service center

2650 East 40th Avenue

Denver, CO 80205

(800) 833-7958

Fax: (303) 322-7242

YSI Pro DSS Calibration Certificate

Unit Number: 7225

Calibration Date 7/8/2025

Serial Number: 20K101622

Technician: Brady Cox

Installed Probes

☒ Conductivity

☒ PH/ORP

☒ DO

☒ TURB

☒ Display is clear, and free of damage

☒ Cable and accessories are free of damage

☒ Firmware version is up to date.

Display Battery 96 % **Pass**

Cable Flex Test: **Pass**

Cable Length 10M

Cable Lot # 23L100776

Cond Probe Lot # 23M102563

Bath Temp 30.91 °C

Meter Temp 30.81 °C

Variance -0.10 **Pass**

pH/ORP Serial # 24B103168

DO Probe Serial # 23K101667

Turb Probe Serial # 23K101991

Cond

Calibration	Reading		Buffer Lot #	Exp. Date	
1.413 mS	1.413 mS	Pass	5GE1005	5/26	Pass

pH

Point Test	Calibration	Reading	mV	Slope		Buffer Lot #	Exp. Date	
2 Point	pH 7.00	pH 7.00	-16.5 mV			5GE0844	5/27	Pass
	pH 10.01	pH 10.01	-184.2 mV	167.7	Pass	5GC1614	3/27	Pass

ORP

Calibration	Reading		Buffer Lot #	Exp. Date	
220 mV	220 mV	Pass	5GE0209	2/26	Pass

Turbidity

Zero	Reading	Variance		Cal	Reading	Variance		Buffer Lot #	Exp. Date	
0 ntu	-0.01 ntu	-0.01 ntu	Pass	124 ntu	123.97	0.0%	Pass	25D24020989	4/26	Pass

DO

Barometer	Calibration	Reading	Variance		Test Fluid
633.9 mmHg	83.4 %	83.4 %	0.0%	Pass	Water Saturated Air
Time: Min.	Sec.	Reading			Nitrogen Lot #
1	48	1 %	Pass		153403294967

Geotech Environmental Equipment, Inc. takes pride in ensuring this instrument is tested to function as specified by the manufacturer and was calibrated in accordance to manufacturer specifications. All calibration standards used are NIST traceable. With the provided lot numbers we can provide NIST documents on request. Call us at (800) 833-7958 and we will be glad to help.

ANALYTICAL REPORT

PREPARED FOR

Attn: Richard Wilson
HDR Inc
1917 S 67th Street
Omaha, Nebraska 68106

Generated 7/29/2025 9:44:35 AM

JOB DESCRIPTION

Metro Park EAST-Landfill

JOB NUMBER

310-311265-1

Eurofins Cedar Falls

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing North Central, LLC Project Manager.

Authorization



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Authorized for release by
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Case Narrative

Client: HDR Inc
Project: Metro Park EAST-Landfill

Job ID: 310-311265-1

Job ID: 310-311265-1

Eurofins Cedar Falls

Job Narrative 310-311265-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 7/17/2025 4:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.3°C.

GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 310-460957 recovered above the upper control limit for Trichlorofluoromethane (36.0%D), Vinyl chloride (25.8%D), and Chloromethane (24.5%D). The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is:(CCV 310-460957/4).

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

Metals

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

General Chemistry

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

Eurofins Cedar Falls

Sample Summary

Client: HDR Inc

Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-311265-1	MW-E	Water	07/16/25 13:21	07/17/25 16:00
310-311265-2	MW-66	Water	07/16/25 14:30	07/17/25 16:00
310-311265-3	TB-1	Water	07/16/25 15:00	07/17/25 16:00

Detection Summary

Client: HDR Inc

Job ID: 310-311265-1

Project/Site: Metro Park EAST-Landfill

Client Sample ID: MW-E

Lab Sample ID: 310-311265-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.35	J	10.0	3.10	ug/L	1		8260D	Total/NA
Arsenic	0.00282		0.00200	0.000530	mg/L	1		6020B	Total/NA
Barium	0.522		0.00200	0.000660	mg/L	1		6020B	Total/NA
Cobalt	0.000728		0.000500	0.000170	mg/L	1		6020B	Total/NA
Total Suspended Solids	1.38	J	1.88	1.31	mg/L	1		I-3765-85	Total/NA

Client Sample ID: MW-66

Lab Sample ID: 310-311265-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0152	J	0.0200	0.0130	mg/L	1		6020B	Total/NA

Client Sample ID: TB-1

Lab Sample ID: 310-311265-3

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Cedar Falls

Client Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Client Sample ID: MW-E

Lab Sample ID: 310-311265-1

Date Collected: 07/16/25 13:21

Matrix: Water

Date Received: 07/17/25 16:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			07/19/25 02:07	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			07/19/25 02:07	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			07/19/25 02:07	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			07/19/25 02:07	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			07/19/25 02:07	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			07/19/25 02:07	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			07/19/25 02:07	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			07/19/25 02:07	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			07/19/25 02:07	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			07/19/25 02:07	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			07/19/25 02:07	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			07/19/25 02:07	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			07/19/25 02:07	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			07/19/25 02:07	1
2-Hexanone	<10.0		10.0	2.00	ug/L			07/19/25 02:07	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			07/19/25 02:07	1
Acetone	4.35	J	10.0	3.10	ug/L			07/19/25 02:07	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			07/19/25 02:07	1
Benzene	<0.500		0.500	0.220	ug/L			07/19/25 02:07	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			07/19/25 02:07	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			07/19/25 02:07	1
Bromoform	<5.00		5.00	0.780	ug/L			07/19/25 02:07	1
Bromomethane	<4.00		4.00	1.10	ug/L			07/19/25 02:07	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			07/19/25 02:07	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			07/19/25 02:07	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			07/19/25 02:07	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			07/19/25 02:07	1
Chloroethane	<4.00		4.00	0.790	ug/L			07/19/25 02:07	1
Chloroform	<3.00		3.00	1.30	ug/L			07/19/25 02:07	1
Chloromethane	<3.00		3.00	0.610	ug/L			07/19/25 02:07	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			07/19/25 02:07	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			07/19/25 02:07	1
Dibromomethane	<1.00		1.00	0.330	ug/L			07/19/25 02:07	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			07/19/25 02:07	1
Iodomethane	<10.0		10.0	7.00	ug/L			07/19/25 02:07	1
Methylene chloride	<5.00		5.00	1.70	ug/L			07/19/25 02:07	1
Styrene	<1.00		1.00	0.370	ug/L			07/19/25 02:07	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			07/19/25 02:07	1
Toluene	<1.00		1.00	0.430	ug/L			07/19/25 02:07	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			07/19/25 02:07	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			07/19/25 02:07	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			07/19/25 02:07	1
Trichloroethene	<1.00		1.00	0.430	ug/L			07/19/25 02:07	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			07/19/25 02:07	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			07/19/25 02:07	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			07/19/25 02:07	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			07/19/25 02:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	109		76 - 130		07/19/25 02:07	1

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Client Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Client Sample ID: MW-E

Lab Sample ID: 310-311265-1

Date Collected: 07/16/25 13:21

Matrix: Water

Date Received: 07/17/25 16:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		07/19/25 02:07	1
4-Bromofluorobenzene (Surr)	102		80 - 120		07/19/25 02:07	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		07/21/25 09:10	07/28/25 17:19	1
Arsenic	0.00282		0.00200	0.000530	mg/L		07/21/25 09:10	07/28/25 17:19	1
Barium	0.522		0.00200	0.000660	mg/L		07/21/25 09:10	07/28/25 17:19	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		07/21/25 09:10	07/28/25 17:19	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		07/21/25 09:10	07/28/25 17:19	1
Chromium	<0.00500		0.00500	0.00180	mg/L		07/21/25 09:10	07/28/25 17:19	1
Cobalt	0.000728		0.000500	0.000170	mg/L		07/21/25 09:10	07/28/25 17:19	1
Copper	<0.00500		0.00500	0.00320	mg/L		07/21/25 09:10	07/28/25 17:19	1
Lead	<0.000500		0.000500	0.000330	mg/L		07/21/25 09:10	07/28/25 17:19	1
Nickel	<0.00500		0.00500	0.00230	mg/L		07/21/25 09:10	07/28/25 17:19	1
Selenium	<0.00500		0.00500	0.00140	mg/L		07/21/25 09:10	07/28/25 17:19	1
Silver	<0.00100		0.00100	0.000500	mg/L		07/21/25 09:10	07/28/25 17:19	1
Thallium	<0.00100		0.00100	0.000570	mg/L		07/21/25 09:10	07/28/25 17:19	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		07/21/25 09:10	07/28/25 17:19	1
Zinc	<0.0200		0.0200	0.0130	mg/L		07/21/25 09:10	07/28/25 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	1.38	J	1.88	1.31	mg/L			07/18/25 15:57	1

Client Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Client Sample ID: MW-66

Lab Sample ID: 310-311265-2

Date Collected: 07/16/25 14:30

Matrix: Water

Date Received: 07/17/25 16:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	0.0152	J	0.0200	0.0130	mg/L		07/21/25 09:10	07/28/25 17:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids (USGS I-3765-85)	<1.88		1.88	1.31	mg/L			07/18/25 15:57	1

Client Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Client Sample ID: TB-1

Lab Sample ID: 310-311265-3

Date Collected: 07/16/25 15:00

Matrix: Water

Date Received: 07/17/25 16:00

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			07/18/25 23:52	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			07/18/25 23:52	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			07/18/25 23:52	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			07/18/25 23:52	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			07/18/25 23:52	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			07/18/25 23:52	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			07/18/25 23:52	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			07/18/25 23:52	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			07/18/25 23:52	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			07/18/25 23:52	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			07/18/25 23:52	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			07/18/25 23:52	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			07/18/25 23:52	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			07/18/25 23:52	1
2-Hexanone	<10.0		10.0	2.00	ug/L			07/18/25 23:52	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			07/18/25 23:52	1
Acetone	<10.0		10.0	3.10	ug/L			07/18/25 23:52	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			07/18/25 23:52	1
Benzene	<0.500		0.500	0.220	ug/L			07/18/25 23:52	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			07/18/25 23:52	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			07/18/25 23:52	1
Bromoform	<5.00		5.00	0.780	ug/L			07/18/25 23:52	1
Bromomethane	<4.00		4.00	1.10	ug/L			07/18/25 23:52	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			07/18/25 23:52	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			07/18/25 23:52	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			07/18/25 23:52	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			07/18/25 23:52	1
Chloroethane	<4.00		4.00	0.790	ug/L			07/18/25 23:52	1
Chloroform	<3.00		3.00	1.30	ug/L			07/18/25 23:52	1
Chloromethane	<3.00		3.00	0.610	ug/L			07/18/25 23:52	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			07/18/25 23:52	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			07/18/25 23:52	1
Dibromomethane	<1.00		1.00	0.330	ug/L			07/18/25 23:52	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			07/18/25 23:52	1
Iodomethane	<10.0		10.0	7.00	ug/L			07/18/25 23:52	1
Methylene chloride	<5.00		5.00	1.70	ug/L			07/18/25 23:52	1
Styrene	<1.00		1.00	0.370	ug/L			07/18/25 23:52	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			07/18/25 23:52	1
Toluene	<1.00		1.00	0.430	ug/L			07/18/25 23:52	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			07/18/25 23:52	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			07/18/25 23:52	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			07/18/25 23:52	1
Trichloroethene	<1.00		1.00	0.430	ug/L			07/18/25 23:52	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			07/18/25 23:52	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			07/18/25 23:52	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			07/18/25 23:52	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			07/18/25 23:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	110		76 - 130		07/18/25 23:52	1

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Client Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Client Sample ID: TB-1

Date Collected: 07/16/25 15:00

Date Received: 07/17/25 16:00

Lab Sample ID: 310-311265-3

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	97		80 - 120		07/18/25 23:52	1
4-Bromofluorobenzene (Surr)	98		80 - 120		07/18/25 23:52	1

Definitions/Glossary

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Qualifiers

GC/MS VOA

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

Metals

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

General Chemistry

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
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

Surrogate Summary

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	DBFM (76-130)	TOL (80-120)	BFB (80-120)
310-311265-1	MW-E	109	97	102
310-311265-3	TB-1	110	97	98
LCS 310-460957/6	Lab Control Sample	102	101	98
LCS 310-460957/7	Lab Control Sample	110	98	103
MB 310-460957/5	Method Blank	111	96	101

Surrogate Legend

- DBFM = Dibromofluoromethane (Surr)
- TOL = Toluene-d8 (Surr)
- BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 310-460957/5

Matrix: Water

Analysis Batch: 460957

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<1.00		1.00	0.380	ug/L			07/18/25 21:37	1
1,1,1-Trichloroethane	<1.00		1.00	0.190	ug/L			07/18/25 21:37	1
1,1,2,2-Tetrachloroethane	<1.00		1.00	0.470	ug/L			07/18/25 21:37	1
1,1,2-Trichloroethane	<1.00		1.00	0.450	ug/L			07/18/25 21:37	1
1,1-Dichloroethane	<1.00		1.00	0.220	ug/L			07/18/25 21:37	1
1,1-Dichloroethene	<2.00		2.00	0.560	ug/L			07/18/25 21:37	1
1,2,3-Trichloropropane	<1.00		1.00	0.590	ug/L			07/18/25 21:37	1
1,2-Dibromo-3-chloropropane	<5.00		5.00	1.20	ug/L			07/18/25 21:37	1
1,2-Dibromoethane (EDB)	<1.00		1.00	0.340	ug/L			07/18/25 21:37	1
1,2-Dichlorobenzene	<1.00		1.00	0.370	ug/L			07/18/25 21:37	1
1,2-Dichloroethane	<1.00		1.00	0.390	ug/L			07/18/25 21:37	1
1,2-Dichloropropane	<1.00		1.00	0.270	ug/L			07/18/25 21:37	1
1,4-Dichlorobenzene	<1.00		1.00	0.230	ug/L			07/18/25 21:37	1
2-Butanone (MEK)	<10.0		10.0	2.10	ug/L			07/18/25 21:37	1
2-Hexanone	<10.0		10.0	2.00	ug/L			07/18/25 21:37	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0	2.10	ug/L			07/18/25 21:37	1
Acetone	<10.0		10.0	3.10	ug/L			07/18/25 21:37	1
Acrylonitrile	<5.00		5.00	2.20	ug/L			07/18/25 21:37	1
Benzene	<0.500		0.500	0.220	ug/L			07/18/25 21:37	1
Bromochloromethane	<5.00		5.00	0.540	ug/L			07/18/25 21:37	1
Bromodichloromethane	<1.00		1.00	0.390	ug/L			07/18/25 21:37	1
Bromoform	<5.00		5.00	0.780	ug/L			07/18/25 21:37	1
Bromomethane	<4.00		4.00	1.10	ug/L			07/18/25 21:37	1
Carbon disulfide	<1.00		1.00	0.450	ug/L			07/18/25 21:37	1
Carbon tetrachloride	<2.00		2.00	0.650	ug/L			07/18/25 21:37	1
Chlorobenzene	<1.00		1.00	0.400	ug/L			07/18/25 21:37	1
Chlorodibromomethane	<5.00		5.00	0.750	ug/L			07/18/25 21:37	1
Chloroethane	<4.00		4.00	0.790	ug/L			07/18/25 21:37	1
Chloroform	<3.00		3.00	1.30	ug/L			07/18/25 21:37	1
Chloromethane	<3.00		3.00	0.610	ug/L			07/18/25 21:37	1
cis-1,2-Dichloroethene	<1.00		1.00	0.210	ug/L			07/18/25 21:37	1
cis-1,3-Dichloropropene	<5.00		5.00	0.250	ug/L			07/18/25 21:37	1
Dibromomethane	<1.00		1.00	0.330	ug/L			07/18/25 21:37	1
Ethylbenzene	<1.00		1.00	0.310	ug/L			07/18/25 21:37	1
Iodomethane	<10.0		10.0	7.00	ug/L			07/18/25 21:37	1
Methylene chloride	<5.00		5.00	1.70	ug/L			07/18/25 21:37	1
Styrene	<1.00		1.00	0.370	ug/L			07/18/25 21:37	1
Tetrachloroethene	<1.00		1.00	0.480	ug/L			07/18/25 21:37	1
Toluene	<1.00		1.00	0.430	ug/L			07/18/25 21:37	1
trans-1,2-Dichloroethene	<1.00		1.00	0.270	ug/L			07/18/25 21:37	1
trans-1,3-Dichloropropene	<5.00		5.00	0.560	ug/L			07/18/25 21:37	1
trans-1,4-Dichloro-2-butene	<10.0		10.0	1.10	ug/L			07/18/25 21:37	1
Trichloroethene	<1.00		1.00	0.430	ug/L			07/18/25 21:37	1
Trichlorofluoromethane	<4.00		4.00	0.380	ug/L			07/18/25 21:37	1
Vinyl acetate	<10.0		10.0	2.50	ug/L			07/18/25 21:37	1
Vinyl chloride	<1.00		1.00	0.180	ug/L			07/18/25 21:37	1
Xylenes, Total	<3.00		3.00	0.400	ug/L			07/18/25 21:37	1

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QC Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 310-460957/5

Matrix: Water

Analysis Batch: 460957

Client Sample ID: Method Blank

Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	111		76 - 130		07/18/25 21:37	1
Toluene-d8 (Surr)	96		80 - 120		07/18/25 21:37	1
4-Bromofluorobenzene (Surr)	101		80 - 120		07/18/25 21:37	1

Lab Sample ID: LCS 310-460957/6

Matrix: Water

Analysis Batch: 460957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1,2-Tetrachloroethane	20.0	18.19		ug/L		91	70 - 121
1,1,1-Trichloroethane	20.0	21.40		ug/L		107	69 - 130
1,1,1,2,2-Tetrachloroethane	20.0	19.54		ug/L		98	70 - 122
1,1,2-Trichloroethane	20.0	16.92		ug/L		85	75 - 121
1,1-Dichloroethane	20.0	21.58		ug/L		108	69 - 127
1,1-Dichloroethene	20.0	22.15		ug/L		111	64 - 134
1,2,3-Trichloropropane	20.0	20.28		ug/L		101	70 - 122
1,2-Dibromo-3-chloropropane	20.0	20.31		ug/L		102	62 - 132
1,2-Dibromoethane (EDB)	20.0	17.61		ug/L		88	74 - 122
1,2-Dichlorobenzene	20.0	20.30		ug/L		101	74 - 120
1,2-Dichloroethane	20.0	22.27		ug/L		111	68 - 125
1,2-Dichloropropane	20.0	19.47		ug/L		97	72 - 128
1,4-Dichlorobenzene	20.0	19.95		ug/L		100	72 - 120
2-Butanone (MEK)	40.0	41.86		ug/L		105	60 - 134
2-Hexanone	40.0	41.80		ug/L		104	62 - 139
4-Methyl-2-pentanone (MIBK)	40.0	38.34		ug/L		96	62 - 136
Acetone	40.0	49.87		ug/L		125	59 - 136
Acrylonitrile	200	220.3		ug/L		110	50 - 150
Benzene	20.0	19.80		ug/L		99	71 - 125
Bromochloromethane	20.0	21.70		ug/L		108	69 - 131
Bromodichloromethane	20.0	19.35		ug/L		97	70 - 122
Bromoform	20.0	16.79		ug/L		84	62 - 122
Carbon disulfide	20.0	23.01		ug/L		115	58 - 137
Carbon tetrachloride	20.0	22.74		ug/L		114	63 - 136
Chlorobenzene	20.0	18.30		ug/L		91	74 - 120
Chlorodibromomethane	20.0	16.70		ug/L		84	69 - 121
Chloroform	20.0	20.82		ug/L		104	72 - 122
cis-1,2-Dichloroethene	20.0	20.89		ug/L		104	72 - 123
cis-1,3-Dichloropropene	20.0	16.96		ug/L		85	72 - 123
Dibromomethane	20.0	21.16		ug/L		106	72 - 122
Ethylbenzene	20.0	19.34		ug/L		97	75 - 120
Iodomethane	20.0	13.64		ug/L		68	18 - 150
Methylene chloride	20.0	21.59		ug/L		108	72 - 128
Styrene	20.0	19.03		ug/L		95	74 - 122
Tetrachloroethene	20.0	18.62		ug/L		93	70 - 128
Toluene	20.0	18.86		ug/L		94	74 - 120
trans-1,2-Dichloroethene	20.0	20.86		ug/L		104	67 - 127
trans-1,3-Dichloropropene	20.0	16.76		ug/L		84	67 - 123
trans-1,4-Dichloro-2-butene	20.0	17.66		ug/L		88	50 - 150

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QC Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 310-460957/6

Matrix: Water

Analysis Batch: 460957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Trichloroethene	20.0	18.66		ug/L		93	70 - 128
Vinyl acetate	40.0	35.24		ug/L		88	50 - 150
Xylenes, Total	40.0	38.46		ug/L		96	74 - 121

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	102		76 - 130
Toluene-d8 (Surr)	101		80 - 120
4-Bromofluorobenzene (Surr)	98		80 - 120

Lab Sample ID: LCS 310-460957/7

Matrix: Water

Analysis Batch: 460957

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromomethane	20.0	18.84		ug/L		94	33 - 138
Chloroethane	20.0	23.19		ug/L		116	59 - 139
Chloromethane	20.0	23.44		ug/L		117	52 - 146
Trichlorofluoromethane	20.0	26.24		ug/L		131	55 - 150
Vinyl chloride	20.0	24.40		ug/L		122	60 - 142

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Dibromofluoromethane (Surr)	110		76 - 130
Toluene-d8 (Surr)	98		80 - 120
4-Bromofluorobenzene (Surr)	103		80 - 120

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 310-461029/1-A

Matrix: Water

Analysis Batch: 461946

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 461029

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.00200		0.00200	0.00100	mg/L		07/21/25 09:10	07/28/25 16:10	1
Arsenic	<0.00200		0.00200	0.000530	mg/L		07/21/25 09:10	07/28/25 16:10	1
Barium	<0.00200		0.00200	0.000660	mg/L		07/21/25 09:10	07/28/25 16:10	1
Beryllium	<0.00100		0.00100	0.000330	mg/L		07/21/25 09:10	07/28/25 16:10	1
Cadmium	<0.000200		0.000200	0.000100	mg/L		07/21/25 09:10	07/28/25 16:10	1
Chromium	<0.00500		0.00500	0.00180	mg/L		07/21/25 09:10	07/28/25 16:10	1
Cobalt	<0.000500		0.000500	0.000170	mg/L		07/21/25 09:10	07/28/25 16:10	1
Copper	<0.00500		0.00500	0.00320	mg/L		07/21/25 09:10	07/28/25 16:10	1
Lead	<0.000500		0.000500	0.000330	mg/L		07/21/25 09:10	07/28/25 16:10	1
Nickel	<0.00500		0.00500	0.00230	mg/L		07/21/25 09:10	07/28/25 16:10	1
Selenium	<0.00500		0.00500	0.00140	mg/L		07/21/25 09:10	07/28/25 16:10	1
Silver	<0.00100		0.00100	0.000500	mg/L		07/21/25 09:10	07/28/25 16:10	1
Thallium	<0.00100		0.00100	0.000570	mg/L		07/21/25 09:10	07/28/25 16:10	1
Vanadium	<0.00500		0.00500	0.00170	mg/L		07/21/25 09:10	07/28/25 16:10	1
Zinc	<0.0200		0.0200	0.0130	mg/L		07/21/25 09:10	07/28/25 16:10	1

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QC Sample Results

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 310-461029/2-A

Matrix: Water

Analysis Batch: 461946

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 461029

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.200	0.2121		mg/L		106	80 - 120
Arsenic	0.200	0.2052		mg/L		103	80 - 120
Barium	0.100	0.09873		mg/L		99	80 - 120
Beryllium	0.100	0.09537		mg/L		95	80 - 120
Cadmium	0.100	0.09595		mg/L		96	80 - 120
Chromium	0.100	0.09955		mg/L		100	80 - 120
Cobalt	0.100	0.09825		mg/L		98	80 - 120
Copper	0.200	0.1967		mg/L		98	80 - 120
Lead	0.200	0.2024		mg/L		101	80 - 120
Nickel	0.200	0.1938		mg/L		97	80 - 120
Selenium	0.400	0.3788		mg/L		95	80 - 120
Silver	0.100	0.1108		mg/L		111	80 - 120
Thallium	0.100	0.09034		mg/L		90	80 - 120
Vanadium	0.100	0.09724		mg/L		97	80 - 120
Zinc	0.200	0.1910		mg/L		96	80 - 120

Method: I-3765-85 - Residue, Non-filterable (TSS)

Lab Sample ID: MB 310-461014/1

Matrix: Water

Analysis Batch: 461014

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<5.00		5.00	3.50	mg/L			07/18/25 15:57	1

Lab Sample ID: LCS 310-461014/2

Matrix: Water

Analysis Batch: 461014

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Suspended Solids	100	92.00		mg/L		92	82 - 117

QC Association Summary

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

GC/MS VOA

Analysis Batch: 460957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311265-1	MW-E	Total/NA	Water	8260D	
310-311265-3	TB-1	Total/NA	Water	8260D	
MB 310-460957/5	Method Blank	Total/NA	Water	8260D	
LCS 310-460957/6	Lab Control Sample	Total/NA	Water	8260D	
LCS 310-460957/7	Lab Control Sample	Total/NA	Water	8260D	

Metals

Prep Batch: 461029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311265-1	MW-E	Total/NA	Water	3005A	
310-311265-2	MW-66	Total/NA	Water	3005A	
MB 310-461029/1-A	Method Blank	Total/NA	Water	3005A	
LCS 310-461029/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 461946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311265-1	MW-E	Total/NA	Water	6020B	461029
310-311265-2	MW-66	Total/NA	Water	6020B	461029
MB 310-461029/1-A	Method Blank	Total/NA	Water	6020B	461029
LCS 310-461029/2-A	Lab Control Sample	Total/NA	Water	6020B	461029

General Chemistry

Analysis Batch: 461014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-311265-1	MW-E	Total/NA	Water	I-3765-85	
310-311265-2	MW-66	Total/NA	Water	I-3765-85	
MB 310-461014/1	Method Blank	Total/NA	Water	I-3765-85	
LCS 310-461014/2	Lab Control Sample	Total/NA	Water	I-3765-85	

Lab Chronicle

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Client Sample ID: MW-E

Date Collected: 07/16/25 13:21

Date Received: 07/17/25 16:00

Lab Sample ID: 310-311265-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	460957	WSE8	EET CF	07/19/25 02:07
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 17:19
Total/NA	Analysis	I-3765-85		1	461014	E6KR	EET CF	07/18/25 15:57

Client Sample ID: MW-66

Date Collected: 07/16/25 14:30

Date Received: 07/17/25 16:00

Lab Sample ID: 310-311265-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			461029	WK2X	EET CF	07/21/25 09:10
Total/NA	Analysis	6020B		1	461946	NFT2	EET CF	07/28/25 17:22
Total/NA	Analysis	I-3765-85		1	461014	E6KR	EET CF	07/18/25 15:57

Client Sample ID: TB-1

Date Collected: 07/16/25 15:00

Date Received: 07/17/25 16:00

Lab Sample ID: 310-311265-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	460957	WSE8	EET CF	07/18/25 23:52

Laboratory References:
EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401

Accreditation/Certification Summary

Client: HDR Inc
Project/Site: Metro Park EAST-Landfill

Job ID: 310-311265-1

Laboratory: Eurofins Cedar Falls

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Iowa	State	007	12-01-25

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Method Summary

Client: HDR Inc

Job ID: 310-311265-1

Project/Site: Metro Park EAST-Landfill

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CF
6020B	Metals (ICP/MS)	SW846	EET CF
I-3765-85	Residue, Non-filterable (TSS)	USGS	EET CF
3005A	Preparation, Total Metals	SW846	EET CF
5030B	Purge and Trap	SW846	EET CF

Protocol References:

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

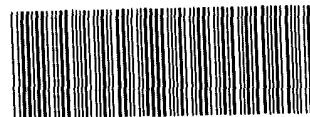
USGS = "Methods For Analysis Of Water And Fluvial Sediments", USGS, 1989

Laboratory References:

EET CF = Eurofins Cedar Falls, 3019 Venture Way, Cedar Falls, IA 50613, TEL (319)277-2401



Environment Testing
America



310-311265 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information			
Client: <u>HDR</u>			
City/State:	CITY <u>Omaha</u>	STATE <u>NE</u>	Project
Receipt Information			
Date/Time Received.	DATE <u>7/17/25</u>	TIME <u>1600</u>	Received By. <u>BP</u>
Delivery Type: ☐ UPS ☐ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☒ Lab Courier ☐ Lab Field Services ☐ Client Drop-off ☐ Other _____			
Condition of Cooler/Containers			
Sample(s) received in Cooler? ☒ Yes ☐ No If yes: Cooler ID.			
Multiple Coolers? ☐ Yes ☒ No If yes: Cooler # ____ of ____			
Cooler Custody Seals Present? ☐ Yes ☒ No If yes: Cooler custody seals intact? ☐ Yes ☐ No			
Sample Custody Seals Present? ☐ Yes ☒ No If yes: Sample custody seals intact? ☐ Yes ☐ No			
Trip Blank Present? ☒ Yes ☐ No If yes: Which VOA samples are in cooler? ↓			
<u>all</u>			
Temperature Record			
Coolant ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE			
Thermometer ID: <u>AA</u>		Correction Factor (°C): <u>+0</u>	
• Temp Blank Temperature – If no temp blank, or temp blank temperature above criteria, proceed to Sample Container Temperature			
Uncorrected Temp (°C): <u>0.3</u>		Corrected Temp (°C): <u>0.3</u>	
• Sample Container Temperature			
Container(s) used:	CONTAINER 1	CONTAINER 2	
Uncorrected Temp (°C):			
Corrected Temp (°C):			
Exceptions Noted			
1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No a) If yes: Is there evidence that the chilling process began? ☐ Yes ☐ No			
2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles, frozen solid?) ☐ Yes ☐ No			
NOTE If yes, contact PM before proceeding If no, proceed with login			
Additional Comments			

Phone (319) 277-2401 Phone (319) 277-2425

estAmerica Omaha SC



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Login Sample Receipt Checklist

Client: HDR Inc

Job Number: 310-311265-1

Login Number: 311265

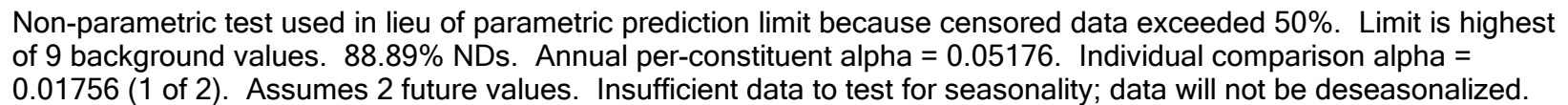
List Source: Eurofins Cedar Falls

List Number: 1

Creator: Cappi, Sage

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Interwell Non-parametric



Constituent: Zinc Analysis Run 7/30/2025 9:59 AM View: Prediction Limits
Metro Park East LF Client: Iowa Metro Waste Authority Data: MPE CWTS flat

Prediction Limit

Metro Park East LF Client: Iowa Metro Waste Authority Data: MPE CWTS flat Printed 7/30/2025, 9:59 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Wells</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Zinc (mg/L)	MW-66	0.02	7/16/2025	0.0152J	No	9	MW-49R	88.89	n/a	n/a	0.01756	NP Inter (NDs) 1 of 2