



HZW
Environmental
Consultants

November 26, 2024

Mr. Michael Naymik
Transportation Project Manager- Natural Resources
EnviroScience, Inc.
5070 Stow Road
Stow, Ohio 44224

Subject: Regulated Material Investigation including Stockpiled Material Sampling for Ohio Department of Transportation Project CUY-14-6.93 (PID 104132) Agreement Number 36311: Task Order Contract Work Order Number 39097-7 for Parcel 14 Located in Garfield Heights, Cuyahoga County, Ohio 44115.

Dear Mr. Naymik:

On behalf of EnviroScience, Inc. (EnviroScience) and Ohio Department of Transportation (ODOT) District 12, HZW Environmental Consultants, LLC (HZW) conducted a regulated materials survey at the real property identified as Parcel 14 located in Garfield Heights, Cuyahoga County, Ohio 44115 (hereinafter sometimes referred to as the Property). The Property contains a 49-foot by 10-foot metal trailer filled with debris including scrap wood, scrap metal, and fiberglass insulation. The regulated materials survey included an asbestos inspection, a limited lead based paint (LBP) survey and a universal waste/hazardous substance survey needed prior to demolition and Property redevelopment. In addition, the regulated materials survey included collection of three (3) composite samples from stockpiled material near the metal trailer for laboratory analysis of aluminum, magnesium, and manganese. The stockpiled material was remnants from a former suspected magnesium recycler.

The inspections and sampling were completed on November 13, 2024. The following sections present the results of the survey and sampling activities and analysis. **Attachment A** presents a brief photolog of the Property obtained during the surveys.

1.0 ASBESTOS SURVEY

Mr. Jacob Wingert, who is a certified Asbestos Hazard Evaluation Specialist (AHES), performed an asbestos survey at the Property under Certification No. ES547425. This certification is required to

be maintained by the inspector(s) in accordance with the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) and Ohio Environmental Protection Agency (EPA) regulations.

The asbestos survey was conducted in accordance with the National Emissions Standard for Hazardous Air Pollutants (NESHAP). NESHAP regulations require no specific survey protocol be followed; however, AHERA protocol is recommended. Therefore, the asbestos survey at the Property was conducted in accordance with AHERA protocol, which initially requires that all homogeneous areas of building materials located in a building and suspected of containing asbestos be identified. A homogeneous area is a building material/area that is uniform in texture, color, date of application, use or system and appears identical in every other respect. Once all homogeneous areas are identified, functional spaces in which these homogeneous areas exist are subsequently identified. Within each functional space, the AHERA category, condition, quantity, and location of each suspect material is determined.

As noted, the Property contained a 49-foot by 10-foot metal trailer filled with debris including scrap wood, scrap metal, and fiberglass insulation. Based on the inspection, no asbestos was identified in or on the trailer.

2.0 LEAD PAINT SURVEY

The LBP inspection was considered limited due to the fact that only excessively peeling or chipping paint on surfaces that may create potential lead waste by upcoming demolition activities were sampled and analyzed. Painted surfaces that are in good repair and that are considered LBP can generally be disposed of as demolition debris. The survey was performed under the direction of an Ohio Department of Health, certified lead risk assessor. Based on the survey no suspect LBP was identified.

3.0 UNIVERSAL WASTE/HAZARDOUS SUBSTANCE SURVEY

The Universal Waste/hazardous substance survey was designed to identify the existence of universal waste items as principally defined in 40 Code of Federal Regulations (CFR) 273.9 and subsequent handling procedures as well as other regulated items (e.g., polychlorinated biphenyl or "PCB" light ballasts, regulated refrigerants, oils, etc.) prior to subject building renovation/demolition. In general, per the U.S. EPA universal waste consists of five (5) material classes including lamps (i.e., electric lamps including fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps), mercury containing equipment (e.g., thermostats, gauges, etc.), all battery types, waste pesticides, and aerosol cans. The Ohio EPA has also added paint and paint-related wastes as well as antifreeze as part of its universal waste program.

Based on the universal waste/hazardous substance survey, no materials were found requiring special handling or disposal requirements including potential mercury switches, bulbs, etc. Materials observed inside the trailer were typical solid waste and/or construction/demolition debris with the exception of the suspect recycled magnesium material sample and analyzed as discussed in **Section 4.0**.

4.0 STOCKPILED MATERIAL SAMPLING AND ANALYSIS

Samples were collected of a stockpiled material suspected of being recycled magnesium. The material consisted of a dark gray, fine, powdery substance. The stockpile near the entrance of the trailer was segregated into three (3) approximately equal areas, and a total of three (3) surface composite samples was collected. The samples were submitted to Summit Environmental Technologies (SET) to be analyzed for total aluminum, magnesium, and manganese using U.S. EPA Method 6000/7000 series methods.

Laboratory analytical data is presented in **Attachment B**. The laboratory results of the sample analysis are summarized in **Table 1**.

A review of the tabulated data in **Table 1** indicates that aluminum, magnesium, and manganese were detected in all samples submitted for laboratory analysis. The average concentrations of the metals in **us** soils according to the US Geological Survey (USGS) Professional Paper 1270 entitled "*Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States*" dated 1984 are 71,000 milligrams per kilogram (mg/kg), 9,000 mg/kg, and 550 mg/kg, for aluminum, magnesium, and manganese respectively. Based on this data both the magnesium and manganese concentrations exceed typical average US soil concentrations.

As a method of comparison, the detected compounds were evaluated to the Ohio EPA's VAP risk-based generic numerical direct contact standards (or GNDCSS) for commercial/industrial land use and construction activity land use promulgated under the Appendix to rule 3745-300-08 of the Ohio Administrative Code (OAC) and effective October 17, 2019 as well as the Ohio EPA's Supplemental Criteria as provided in the Chemical Information Database and Applicable Regulatory Standards (or CIDARS) dated October 17, 2019. **Direct contact with soil includes ingestion, dermal contact, inhalation of volatile compounds in outdoor air, and inhalation and ingestion of particulate emissions.**

The GNDCSS are only available for the constituent manganese. A comparison of the laboratory analytical data to the Ohio VAP GNDCSS indicates that all manganese concentrations in the samples submitted for analysis are below the GNDCSS for commercial/industrial land use ~~and construction activity land use categories~~ (refer to **Table 1**). **According to the Cuyahoga County Fiscal Office, Parcel 14 is located on land zoned for commercial use.** As there are no VAP GNDCSS for aluminum, the analytical results of aluminum were compared to the U.S. EPA regional screening level (RSL) for contaminants. The RSL of aluminum for residential soil direct contact is 77,000 mg/kg, and the RSL for commercial/industrial area soil direct contact is 1,100,000 mg/kg. As depicted in **Table 1**, The laboratory analytical results for the detected aluminum in all samples submitted fall below the RSL for both resident land commercial/industrial exposure. It should be noted that RSLs are not cleanup standards, but they provide comparison values for exposure and risk. RSLs do not exist for the compound magnesium.

In summary, based on the initial analysis, the aluminum, magnesium and manganese concentrations do not appear to present an elevated exposure risk based on the current and future intended use and activity. Magnesium has no documented risk standards pursuant to US EPA and Ohio EPA sources. If the material is to be disposed of or potentially recycled, additional analyses most likely would be required for (e.g. TCLP metals).

HZW appreciates the opportunity to provide EnviroScience and ODOT District 12 technical service. Should you have any questions regarding this transmittal or require any additional information, please do not hesitate to contact the undersigned at (330) 208-2717.

Respectfully submitted,
HZW Environmental Consultants, LLC

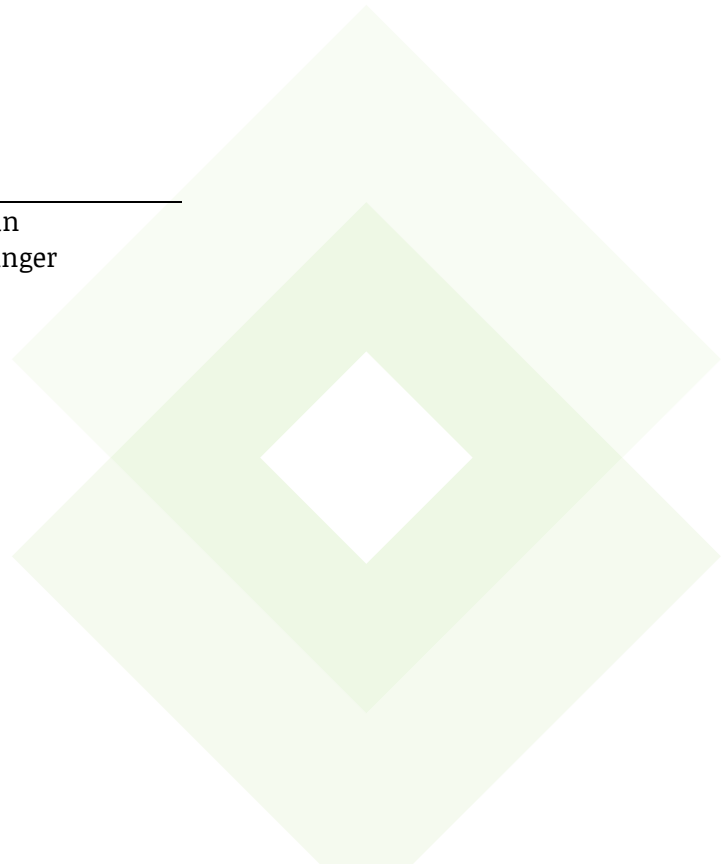
Report Prepared By:

Jacob Wingert
Asbestos Hazard Evaluation Specialist
ES547425

Robert Settle
ODH Lead Risk Assessor
LA9738

Report Reviewed By:

Kevin Reaman
Akron Office Manger



TABLE

Table 1
Summary of Detected Soil Chemicals of Concern Data (mg/kg)
Parcel 14
City of Garfield Heights, Cuyahoga County, Ohio

Parameter	Ohio Vap Risk Based Standards ⁽¹⁾		Average US Soil Concentrations ⁽⁴⁾	Sample Identification/Results (mg/kg)		
	Commercial/ Industrial Direct Contact Standard	Construction Activity Direct Contact Standard		Parcel 14-1	Parcel 14-2	Parcel 14-3
Aluminum	77,000/1,100,000 ⁽²⁾	NA ⁽³⁾	71,000	35,300	36,100	38,000
Magnesium	NA	NA	9,000	352,000	347,000	355,000
Manganese	88,000	12,000	550	7,780	7,180	6,470

Notes:

- (1) Ohio VAP Risk Based Standards per Appendix A of OAC 3745-300-08 effective October 17, 2019 and/or VAP CIDARS.
- (2) US EPA Regional Screening Levels (or RSLs). The value listed first is for residential land use.
- (3) NA denotes not applicable or no standard exists.
- (4) The average concentrations of the metals in US soils according to the US Geological Survey Professional Paper 127, dated 1984.

ATTACHMENT A

PHOTOGRAPHIC LOG

Parcel 14



View of the entrance to the trailer with stockpiled material.



View of the southern side of the trailer and stockpiled material.



View of the northern side of the trailer.



View of the wood scrap, metal scrap, and fiberglass inside the trailer.

ATTACHMENT B

STOCKPILED MATERIAL LABORATORY ANALYTICAL DATA



Summit Environmental Technologies, Inc.
3310 Win St.
Cuyahoga Falls, Ohio 44223
TEL: (330) 253-8211 FAX: (330) 253-4489
Website: <http://www.settek.com>

November 21, 2024

Kevin Reaman
HZW Environmental
1234 Weathervane Lane
Akron, OH 44313
TEL: 330-208-2717
FAX: 330-208-2799

RE: Parcel 14-Garfield Heights

Dear Kevin Reaman:

Order No.: 24111046

Summit Environmental Technologies, Inc. received 3 sample(s) on 11/14/2024 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Quality control data is within laboratory defined or method specified acceptance limits except where noted.

If you have any questions regarding these tests results, please feel free to call the laboratory.

Sincerely,

Holly Florea
Project Manager
3310 Win St.
Cuyahoga Falls, Ohio 44223

Arkansas 88-0735, California 2943, Colorado, Connecticut PH-0108, Florida NELAC E87688, Idaho OH00923, Illinois 200061, Indiana C-OH-13, ISO/IEC 17025:2017 119125 L22-544, Kansas E-10347, Kentucky (Underground Storage Tank) 3, Kentucky 90146, Maryland 339, Michigan 9988, Minnesota 1780279, Nevada OH009232020-1, New Hampshire 2996, New Jersey OH006, New York 11777, North Carolina 39705 and 631, North Dakota R-201, Ohio DW, Ohio VAP CL0052, Oklahoma 2019-155, Oregon OH200001, Pennsylvania 68-01335, Rhode Island LA000317, South Carolina 92016001, Texas T104704466-19-16, Utah OH009232020-12, Virginia VELAP 10381, West Virginia 9957C



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Case Narrative

WO#: 24111046
Date: 11/21/2024

CLIENT: HZW Environmental
Project: Parcel 14-Garfield Heights

This report in its entirety consists of the following documents: Cover Letter, Case Narrative, Analytical Results, QC Summary Report, Applicable Accreditation Information, Chain-of-Custody, Cooler Receipt Form, and other applicable forms as necessary. All documents contain the Summit Environmental Technologies, Inc., Work Order Number assigned to this report.

Summit Environmental Technologies, Inc., holds the accreditations/certifications listed at the bottom of the cover letter that may or may not pertain to this report. Please refer to the "Accreditation Program Analytes Report" for accredited analytes list.

The information contained in this analytical report is the sole property of Summit Environmental Technologies, Inc. and that of the customer. It cannot be reproduced in any form without the consent of Summit Environmental Technologies, Inc. or the customer for which this report was issued. The results contained in this report are only representative of the samples received. Conditions can vary at different times and at different sampling conditions. Summit Environmental Technologies, Inc. is not responsible for use or interpretation of the data included herein.

All results for Solid Samples are reported on an "as received" or "wet weight" basis unless indicated as "dry weight" using the "-dry" designation on the reporting units.

This report is believed to meet all of the requirements of the accrediting agency, where applicable. Any comments or problems with the analytical events associated with this report are noted below.

Original



SUMMIT
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Analytical Laboratories

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Workorder Sample Summary

WO#: **24111046**

21-Nov-24

CLIENT: HZW Environmental
Project: Parcel 14-Garfield Heights

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24111046-001	Parcel 14-1		11/13/2024 1:00:00 PM	11/14/2024 8:20:00 AM	Solid
24111046-002	Parcel 14-2		11/13/2024 1:02:00 PM	11/14/2024 8:20:00 AM	Solid
24111046-003	Parcel 14-3		11/13/2024 1:04:00 PM	11/14/2024 8:20:00 AM	Solid



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Analytical Report

(consolidated)

WO#: 24111046

Date Reported: 11/21/2024

CLIENT: HZW Environmental **Collection Date:** 11/13/2024 1:00:00 PM
Project: Parcel 14-Garfield Heights
Lab ID: 24111046-001 **Matrix:** SOLID
Client Sample ID: Parcel 14-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METALS ANALYSIS (6010D)					SW6010	SW3050B Analyst: RJE
Aluminum(Al)	35300	3270		mg/Kg-dry	100	11/19/2024 11:49:00 AM
Magnesium(Mg)	352000	26100		mg/Kg-dry	2000	11/20/2024 3:25:00 PM
Manganese(Mn)	7780	327		mg/Kg-dry	100	11/19/2024 11:49:00 AM
PERCENT MOISTURE BY SM2540MOD					A2540B	Analyst: JPN
Percent Moisture	27.8	0.200		%	1	11/14/2024 6:10:00 PM

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	M	Manual Integration used to determine area response	ND	Not Detected
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 24111046

Date Reported: 11/21/2024

CLIENT: HZW Environmental **Collection Date:** 11/13/2024 1:02:00 PM
Project: Parcel 14-Garfield Heights
Lab ID: 24111046-002 **Matrix:** SOLID
Client Sample ID: Parcel 14-2

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METALS ANALYSIS (6010D)				SW6010	SW3050B	Analyst: RJE
Aluminum(Al)	36100	3020		mg/Kg-dry	100	11/19/2024 11:52:00 AM
Magnesium(Mg)	347000	24200		mg/Kg-dry	2000	11/20/2024 3:28:00 PM
Manganese(Mn)	7180	302		mg/Kg-dry	100	11/19/2024 11:52:00 AM
PERCENT MOISTURE BY SM2540MOD				A2540B		Analyst: JPN
Percent Moisture	24.8	0.200		%	1	11/14/2024 6:10:00 PM

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	M	Manual Integration used to determine area response	ND	Not Detected
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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Analytical Report

(consolidated)

WO#: 24111046

Date Reported: 11/21/2024

CLIENT: HZW Environmental **Collection Date:** 11/13/2024 1:04:00 PM
Project: Parcel 14-Garfield Heights
Lab ID: 24111046-003 **Matrix:** SOLID
Client Sample ID: Parcel 14-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METALS ANALYSIS (6010D)				SW6010	SW3050B	Analyst: RJE
Aluminum(Al)	38000	2520		mg/Kg-dry	100	11/19/2024 11:55:00 AM
Magnesium(Mg)	355000	20200		mg/Kg-dry	2000	11/20/2024 3:31:00 PM
Manganese(Mn)	6470	252		mg/Kg-dry	100	11/19/2024 11:55:00 AM
PERCENT MOISTURE BY SM2540MOD				A2540B		Analyst: AAA
Percent Moisture	17.4	0.100		%	1	11/16/2024 6:15:00 PM

Qualifiers:	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	M	Manual Integration used to determine area response	ND	Not Detected
	PL	Permit Limit	R	RPD outside accepted recovery limits
	RL	Reporting Detection Limit	W	Sample container temperature is out of limit as specified at testcode



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QC SUMMARY REPORT

WO#: 24111046

21-Nov-24

Client: HZW Environmental
Project: Parcel 14-Garfield Heights

BatchID: 80238

Sample ID: MB-80238	SampType: MBLK	TestCode: Mtl-ICP_S(60)	Units: mg/Kg	Prep Date: 11/15/2024	RunNo: 197202						
Client ID: PBS	Batch ID: 80238	TestNo: SW6010	SW3050B	Analysis Date: 11/18/2024	SeqNo: 5333234						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum(Al)	ND	23.4									
Magnesium(Mg)	ND	9.35									
Manganese(Mn)	ND	2.34									

Sample ID: LCS-80238	SampType: LCS	TestCode: Mtl-ICP_S(60)	Units: mg/Kg	Prep Date: 11/15/2024	RunNo: 197202						
Client ID: LCSS	Batch ID: 80238	TestNo: SW6010	SW3050B	Analysis Date: 11/18/2024	SeqNo: 5333235						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum(Al)	192	24.5	196.1	0	98.0	80	120				
Magnesium(Mg)	197	9.80	196.1	0	101	80	120				
Manganese(Mn)	189	2.45	196.1	0	96.2	80	120				

Sample ID: LCS-80238	SampType: LCS	TestCode: Mtl-ICP_S(60)	Units: mg/Kg	Prep Date: 11/15/2024	RunNo: 197202						
Client ID: LCSS	Batch ID: 80238	TestNo: SW6010	SW3050B	Analysis Date: 11/18/2024	SeqNo: 5333236						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum(Al)	ND	245	196.1	0	101	80	120				
Magnesium(Mg)	205	98.0	196.1	0	104	80	120				
Manganese(Mn)	200	24.5	196.1	0	102	80	120				

Qualifiers:	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Manual Integration used to determine area respons
	ND Not Detected	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits	W Sample container temperature is out of limit as spec



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QC SUMMARY REPORT

WO#: 24111046

21-Nov-24

Client: HZW Environmental
Project: Parcel 14-Garfield Heights

BatchID: 80238

Sample ID: 24111045-005AMS	SampType: MS	TestCode: Mtl-ICP_S(60)	Units: mg/Kg-dry	Prep Date: 11/15/2024	RunNo: 197202						
Client ID: BatchQC	Batch ID: 80238	TestNo: SW6010	SW3050B	Analysis Date: 11/18/2024	SeqNo: 5333247						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum(Al)	7470	25.6	205.0	6283	581	75	125				ES
Magnesium(Mg)	4180	10.3	205.0	3838	165	75	125				ES
Manganese(Mn)	338	2.56	205.0	187.1	73.7	75	125				S

Sample ID: 24111045-005AMSD	SampType: MSD	TestCode: Mtl-ICP_S(60)	Units: mg/Kg-dry	Prep Date: 11/15/2024	RunNo: 197202						
Client ID: BatchQC	Batch ID: 80238	TestNo: SW6010	SW3050B	Analysis Date: 11/18/2024	SeqNo: 5333248						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum(Al)	7170	25.2	201.5	6283	440	75	125	7473	4.14	20	ES
Magnesium(Mg)	3670	10.1	201.5	3838	-83.9	75	125	4177	13.0	20	ES
Manganese(Mn)	331	2.52	201.5	187.1	71.3	75	125	338.1	2.19	20	S

Qualifiers:	E Value above quantitation range	H Holding times for preparation or analysis exceeded	M Manual Integration used to determine area respons
	ND Not Detected	PL Permit Limit	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits	W Sample container temperature is out of limit as spec



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QC SUMMARY REPORT

WO#: 24111046

21-Nov-24

Client: HZW Environmental
Project: Parcel 14-Garfield Heights

BatchID: R197076

Sample ID: MB-R197076	SampType: MBLK	TestCode: PctMoist_S(2)	Units: %	Prep Date:	RunNo: 197076						
Client ID: PBS	Batch ID: R197076	TestNo: A2540B		Analysis Date: 11/14/2024	SeqNo: 5330204						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.200									

Sample ID: 24111030-003ADUP	SampType: DUP	TestCode: PctMoist_S(2)	Units: %	Prep Date:	RunNo: 197076						
Client ID: BatchQC	Batch ID: R197076	TestNo: A2540B		Analysis Date: 11/14/2024	SeqNo: 5330213						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	7.15	0.200						6.896	3.58	5	

Sample ID: 24111045-005ADUP	SampType: DUP	TestCode: PctMoist_S(2)	Units: %	Prep Date:	RunNo: 197076						
Client ID: BatchQC	Batch ID: R197076	TestNo: A2540B		Analysis Date: 11/14/2024	SeqNo: 5330223						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	15.7	0.200						14.43	8.43	5	R

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as spec



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QC SUMMARY REPORT

WO#: 24111046

21-Nov-24

Client: HZW Environmental
Project: Parcel 14-Garfield Heights

BatchID: R197180

Sample ID: MB-R197180	SampType: MBLK	TestCode: PctMoist_S(2)	Units: %	Prep Date:	RunNo: 197180						
Client ID: PBS	Batch ID: R197180	TestNo: A2540B		Analysis Date: 11/16/2024	SeqNo: 5332781						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	ND	0.100									

Sample ID: 24111079-005ADUP	SampType: DUP	TestCode: PctMoist_S(2)	Units: %	Prep Date:	RunNo: 197180						
Client ID: BatchQC	Batch ID: R197180	TestNo: A2540B		Analysis Date: 11/16/2024	SeqNo: 5332790						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	11.8	0.100						11.52	2.01	5	

Sample ID: 24111079-014ADUP	SampType: DUP	TestCode: PctMoist_S(2)	Units: %	Prep Date:	RunNo: 197180						
Client ID: BatchQC	Batch ID: R197180	TestNo: A2540B		Analysis Date: 11/16/2024	SeqNo: 5332800						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Percent Moisture	19.7	0.100						19.66	0.0354	5	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	M	Manual Integration used to determine area respons
ND	Not Detected	PL	Permit Limit	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits	W	Sample container temperature is out of limit as spec

These commonly used Qualifiers and Acronyms may or may not be present in this report.

Qualifiers

U	The compound was analyzed for but was not detected.
J	The reported value is greater than the Method Detection Limit but less than the Reporting Limit.
H	The hold time for sample preparation and/or analysis was exceeded.
D	The result is reported from a dilution.
E	The result exceeded the linear range of the calibration or is estimated due to interference.
MC	The result is below the Minimum Compound Limit.
*	The result exceeds the Regulatory Limit or Maximum Contamination Limit.
m	Manual integration was used to determine the area response.
d	Manual integration in which peak was deleted
N	The result is presumptive based on a Mass Spectral library search assuming a 1:1 response.
P	The second column confirmation exceeded 25% difference.
C	The result has been confirmed by GC/MS.
X	The result was not confirmed when GC/MS Analysis was performed.
B/MB+	The analyte was detected in the associated blank.
G	The ICB or CCB contained reportable amounts of analyte.
QC-/+	The CCV recovery failed low (-) or high (+).
R/QDR	The RPD was outside of accepted recovery limits.
QL-/+	The LCS or LCSD recovery failed low (-) or high (+).
QLR	The LCS/LCSD RPD was outside of accepted recovery limits.
QM-/+	The MS or MSD recovery failed low (-) or high (+).
QMR	The MS/MSD RPD was outside of accepted recovery limits.
QV-/+	The ICV recovery failed low (-) or high (+).
S	The spike result was outside of accepted recovery limits.
Z	Deviation; A deviation from the method was performed; Please refer to the Case Narrative for additional information

Acronyms

ND	Not Detected	RL	Reporting Limit
QC	Quality Control	MDL	Method Detection Limit
MB	Method Blank	LOD	Level of Detection
LCS	Laboratory Control Sample	LOQ	Level of Quantitation
LCSD	Laboratory Control Sample Duplicate	PQL	Practical Quantitation Limit
QCS	Quality Control Sample	CRQL	Contract Required Quantitation Limit
DUP	Duplicate	PL	Permit Limit
MS	Matrix Spike	RegLvl	Regulatory Limit
MSD	Matrix Spike Duplicate	MCL	Maximum Contamination Limit
RPD	Relative Percent Different	MinCL	Minimum Compound Limit
ICV	Initial Calibration Verification	RA	Reanalysis
ICB	Initial Calibration Blank	RE	Reextraction
CCV	Continuing Calibration Verification	TIC	Tentatively Identified Compound
CCB	Continuing Calibration Blank	RT	Retention Time
RLC	Reporting Limit Check	CF	Calibration Factor
DF	Dilution Factor	RF	Response Factor

This list of Qualifiers and Acronyms reflects the most commonly utilized Qualifiers and Acronyms for reporting. Please refer to the Analytical Notes in the Case Narrative for any Qualifiers or Acronyms that do not appear in this list or for additional information regarding the use of these Qualifiers on reported data.



DATES REPORT

WO#: 24111046
21-Nov-24

Client: HZW Environmental
Project: Parcel 14-Garfield Heights

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24111046-001A	Parcel 14-1	11/13/2024 1:00:00 PM	Solid	Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/20/2024 3:25:00 PM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:49:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 11:10:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM
24111046-002A	Parcel 14-2	11/13/2024 1:02:00 PM		Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/20/2024 3:28:00 PM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:52:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 11:16:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM
24111046-003A	Parcel 14-3	11/13/2024 1:04:00 PM		Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/20/2024 3:31:00 PM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:55:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 11:20:00 AM
				Percent Moisture by SM2540Mod			11/16/2024 6:15:00 PM

Original



Analysis Request / Chain of Custody

Refer to Terms and Conditions at www.settek.com

SET
WO
NO.: **2411046**

For Summit Environmental Technologies, Inc. use only

Client Name HZW	Project Identification Parcel 14 - Garfield Heights
Client Street Address 1234 Weatherman Ln	Project Street Address Garfield Hts, OH 44125
City Akron State OH Zip 44333	City State Zip
Client Phone (330) 208-2717	Report To Kevin Reaman
Contact Person Kevin Reaman	PO # A2403501
Client Email Address KReaman@hzwenv.com	Facility ID
Sampled By (Print Name and Provide Signature) Jessie Wing	Reporting/Accreditation Requirements: <input type="checkbox"/> Ohio VAP <input type="checkbox"/> Ohio EPA Pb, Cu <input type="checkbox"/> Drinking Water Compliance <input type="checkbox"/> Other Compliance (List State/ Program):

#	Sample Point ID	Sample Identification	Date Collected	Time Collected	Grab Sample	Composite Sample	Matrix: S = Solid, SL = Sludge, L = Liquid, O = Oil, A = Air, NPW = Non-Potable Water, DW = Drinking Water	Preservation: 1) HNO3; 2) H2SO4; 3) HCl; 4) Zinc Acetate; 5) NaOH; 6) EDA; 7) none; 8) other (specify in comments)	Number of Containers per Sample	Analytical Parameters and Methods Requested			For DW Only: Special Compliance or Routine (S/R)
1		Parcel 14-1	11/13/24	13:00		X	S	1	1	X	X	X	
2		Parcel 14-2	11/13/24	13:02		X	S	1	1	X	X	X	
3		Parcel 14-3	11/13/24	13:04		X	S	1	1	X	X	X	




Relinquished by: Jessie Wing	Date 11/14/24	Time 8:18	Received by:	Date	Time	Notes / Comments: Standard turn Dry weight analysis
Sufficient volume provided to run QC? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			Cooler? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			

Received at Summit by: [Signature]	Date 11/14/24	Time 0820	Carrier Allen	Rush Requested: _____ Day(s) Must be approved by Lab Manager	Received Temp.: 5.2 °C	Cooler Seals? <input type="checkbox"/> PRESENT <input checked="" type="checkbox"/> NOT PRESENT <input type="checkbox"/> N/A	Ice Present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MELTED
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5.3-0.1=

Sample Log-In Check List

Client Name: HZW-OH-44313 Work Order Number: 24111046 RcptNo: 1

Logged by:	Christina N. Gemma	11/14/2024 8:20:00 AM	  
Completed By:	Christina N. Gemma	11/14/2024 4:25:51 PM	
Reviewed By:	Holly Florea	11/15/2024 11:14:25 AM	

Chain of Custody

1. Is Chain of Custody complete? Yes No Not Present
2. How was the sample delivered? Client

Log In

3. Coolers are present? Yes No NA
4. Shipping container/cooler in good condition? Yes No
- Custody seals intact on shipping container/cooler? Yes No Not Present
- No. Seal Date: Signed By:
5. Was an attempt made to cool the samples? Yes No NA
6. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
7. Sample(s) in proper container(s)? Yes No
8. Sufficient sample volume for indicated test(s)? Yes No
9. Are samples (except VOA and ONG) properly preserved? Yes No
10. Was preservative added to bottles? Yes No NA
11. Is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes No No VOA Vials
12. Were any sample containers received broken? Yes No
13. Does paperwork match bottle labels? Yes No
- (Note discrepancies on chain of custody)
14. Are matrices correctly identified on Chain of Custody? Yes No
15. Is it clear what analyses were requested? Yes No
16. Were all holding times able to be met? Yes No
- (If no, notify customer for authorization.)

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

18. Additional remarks:

Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.2	Good	Not Present			