



**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 Limited Asbestos Inspection, Lead-Based Paint Inspection, and 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 17 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 17 located in Garfield Heights, Cuyahoga County, Ohio 44115 (hereinafter sometimes referred to as the Property). The Property contains a 61-foot by 26-foot structure housing a metal machine. The regulated materials survey included an asbestos inspection, a limited lead based (LBP) survey and a universal waste/hazardous substance survey needed prior to demolition and Property redevelopment. In addition, the regulated survey included collection of six (6) composite samples from stockpiled material from inside and near the structure for laboratory analysis of aluminum, magnesium, and manganese. The stockpiled material was remnant 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 LIMITED ASBESTOS INSPECTION AND ANALYSIS**

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 of 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, Asbestos Hazard Emergency Response Act (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.

A total of five (5) bulk samples of suspected asbestos material were collected for polarized light microscopy (PLM) analysis from the Property. The bulk samples included three (3) apparent surfacing material samples on Styrofoam and two (2) pipe wrap samples. A copy of the field sheet and a sample location map/sketch is presented in **Attachment B**.

The samples were collected under strict chain of custody and submitted to the receiving laboratory, CA Labs, LLC (CA Labs) in Baton Rouge, LA for analysis by polarized light microscopy (PLM). The PLM analytical results indicate that all the samples were non-detect for asbestos. A copy of the PLM laboratory analytical results as provided to HZW by CA Labs are presented in **Attachment C**. Please note that if additional suspect ACM is discerned during demolition and Property redevelopment activities, it should be sampled and analyzed to confirm its asbestos content or otherwise assumed to be ACM.

## **2.0 LIMITED LEAD-BASED PAINT INSPECTION AND ANALYSIS**

In addition to the bulk asbestos sampling, one (1) paint chip sample was collected. The paint chip samples consisted of light blue paint on metal found on machinery inside the building (refer to lead based paint sample figure/sketch in **Attachment D**). The paint samples were collected in general conformance to Appendix 13.2.3 of the U.S. Department of Housing and Urban Development (HUD) document entitled "*Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*" and dated July 2012. The samples were collected under strict chain of custody and submitted to the receiving laboratory, CA Labs, LLC (CA Labs) in Baton Rouge, LA. The lead paint chip analysis was performed by CA Labs using U.S EPA atomic absorption Method 7000B.

A review of the paint chip analytical results provided to HZW from CA Labs (refer to **Attachment E**) indicates that the paint type was non-detect for lead, and therefore, is well below 0.5% by weight threshold to be considered LBP. Per HUD, any paint containing a lead concentration greater than or equal to 0.5% by weight (i.e., 5,000 milligrams per kilogram or "mg/kg"), as determined by laboratory analytical methods, must be treated as an LBP paint. The Ohio EPA and ODH have also established these same limits.

It should be noted that this inspection does not serve as lead risk assessment, and trace quantities of lead may be present in the paint. If any paint is abraded, sanded, etc., a lead dust hazard may result. Therefore, prior to demolition, the contractor should notify all workers of the potential hazard, and the workers should be appropriately trained.

### **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.

### **4.0 STOCKPILED MATERIAL SAMPLING AND ANALYSIS**

Samples were collected of a stockpiled material suspected of being recycled magnesium. The stockpiled material was present in large quantities northeast of the structure and inside the machinery. The material consisted of a white, fine, powdery substance. A total of six (6) surface composite samples were collected with one (1) sample collected from inside the structure, and the other five (5) samples collected spatially throughout the exterior stockpile. 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 F**. 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 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 most of the magnesium and a couple manganese concentrations exceed typical average US soil concentrations for these metals.

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).



Mr. Michael Naymik

November 26, 2024

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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:

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Jacob Wingert  
Asbestos Hazard Evaluation Specialist  
ES547425

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Robert Settle  
ODH Lead Risk Assessor  
LA9738

Report Reviewed By:

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Kevin Reaman  
Akron Office Manger



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**TABLE**

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**Table 1**  
**Summary of Detected Soil Chemicals of Concern Data (mg/kg)**  
**Parcel 17**  
**City of Garfield Heights, Cuyahoga County, Ohio**

Parameter	Ohio Vap Risk Based Standards <sup>(1)</sup>		Average US Soil Concentrations <sup>(4)</sup>	Sample Identification/Results (mg/kg)					
	Commercial/ Industrial Direct Contact Standard	Construction Activity Direct Contact Standard		Parcel 17-1	Parcel 17-2	Parcel 17-3	Parcel 17-4	Parcel 17-5	Parcel 17-6
Aluminum	77,000/1,100,000 <sup>(2)</sup>	NA <sup>(3)</sup>	71,000	13,200	8,640	13,300	17,000	8,750	11,600
Magnesium	NA	NA	9,000	11,000	6,780	20,300	15,300	8,030	13,600
Manganese	88,000	12,000	550	234	168	850	1,120	187	357

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 non standard exists.
- (4) The average concentrations of the metals in us soils according to the US Geological Survey Professional Paper 127, dated 1984

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**ATTACHMENT A**

**PHOTOGRAPHIC LOG**

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Parcel 17



View of the entrance to the building.



View of the southern side of the building.



View of stockpiled material inside the concrete mixing machine in the building.



View of pipe wrap located in the building.



View of stockpiled material facing west.



View of stockpiled material facing north.



View of stockpiled material facing south  
with the building in the background.

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**ATTACHMENT B**

**ASBESTOS BULK SAMPLING INFORMATION LOG AND PROPERTY  
FIGURE/SKETCH**

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**Asbestos Bulk Sample Information Log**

Project Name:	EnviroScience Parcel 17 Inspection	HZW Project Number:	A2403501
Project Address:	Parcel 17, Garfield Heights, Ohio 44125	Sample Collection Date:	11/13/2024

Sample #	Asbestos Content	Material Description	Location	Condition	Friable (Y/N)	Approximate Quantity
1	None	Styrofoam Surfacing Material	Interior	Good	Yes	Approx. 1,400 sf
2		Styrofoam Surfacing Material	Interior	Good	Yes	
3		Styrofoam Surfacing Material	Interior	Good	Yes	
3	None	Pipe Wrap	Interior	Good	No	Approx. 10 lf
4		Pipe Wrap	Interior	Good	No	

Red text is friable or may become friable RACM and must be abated before demolition of the structure.



**HZW Environmental  
Consultants**

1234 Weathervane Lane, Suite 110, Akron, OH  
44313  
phone 330-208-2717 - 800-804-8484  
fax 330-208-2799  
A WOMAN OWNED BUSINESS ENTERPRISE

PROJECT Parcel 17 Garfield Hts EnviroScience  
 PROJECT NO. A 24035 01  
 DATE 11/13/24 PAGE \_\_\_ OF \_\_\_  
 HZW REPRESENTATIVE JW

**FACILITY CONSTRUCTION INFORMATION**

Dimensions	26 x 6'	Attic	<b>NOTES:</b>
Basement			
Exterior Const.	metal walls & roof		
Other Structures			

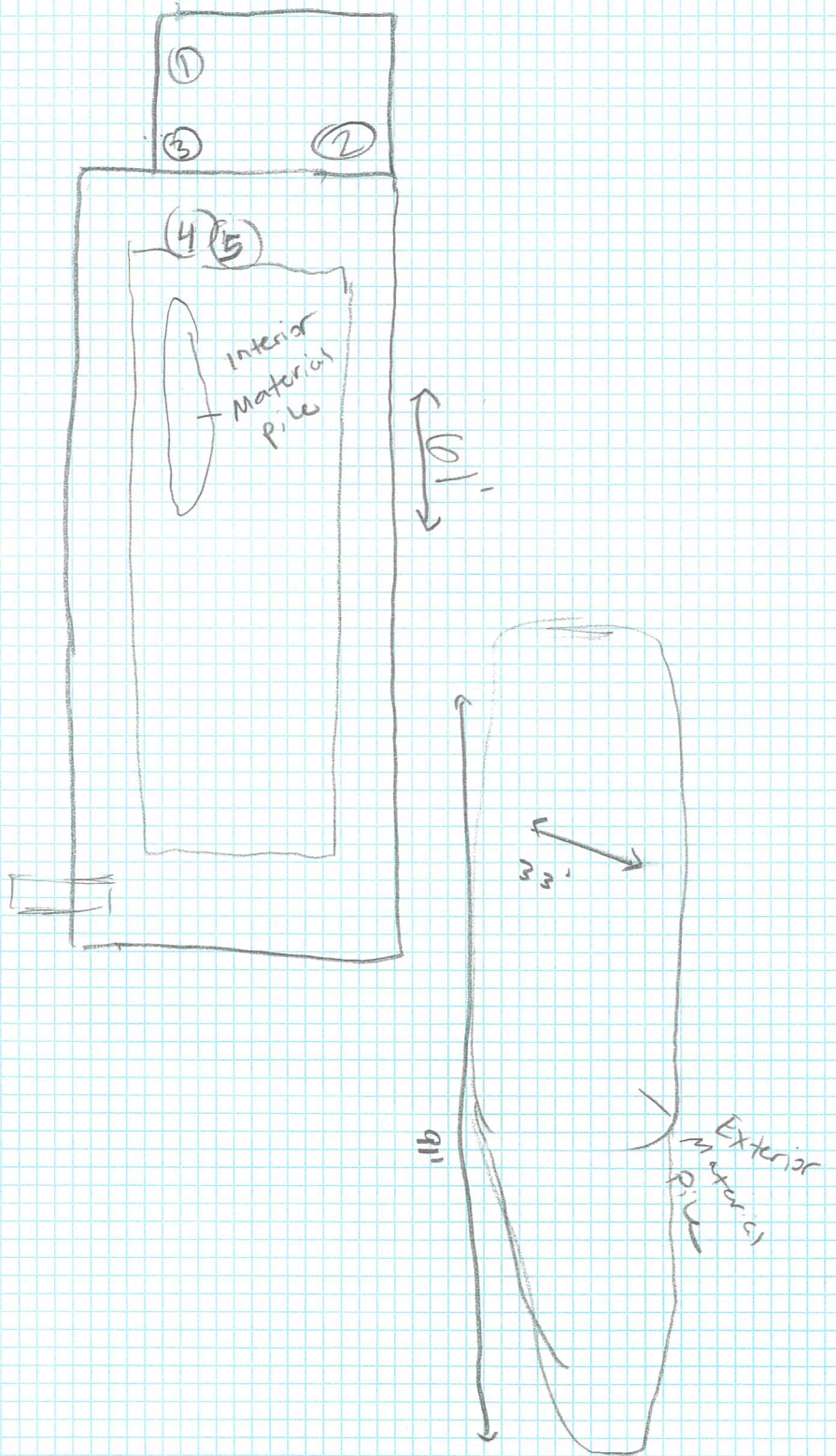
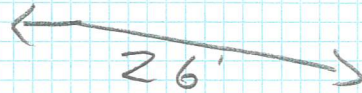
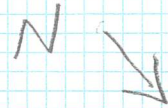
**SUSPECT MATERIAL SUMMARY**

Sample #	DESCRIPTION AND LOCATION OF SUSPECT BUILDING MATERIALS	Quantity
1-3	styrofoam surfacing material Interior	1,400SF
4-5	Pipe wrap Interior	10 LF

**NOTE:** Quantities are approximate and listed in (ft<sup>2</sup>). "TSM" = Textured Surfacing Material. "FT" = Floor Tile. "FS" = Floor Sheet. "CT" = Ceiling Tile.

Parcel 17

11/13/24



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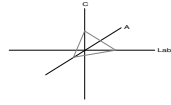
**ATTACHMENT C**

**ASBESTOS BULK SAMPLING LABORATORY ANALYTICAL REPORT**

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**CA Labs**  
Dedicated to  
Quality

**CA Labs, L.L.C.**  
12232 Industrilex, Suite 32  
Baton Rouge, LA 70809  
Phone 225-751-5632  
Fax 225-751-5634



**NVLAP #200772-0**  
**TDSHS #300370**  
**CDPHE #AL-18111**  
**LELAP #03069**

## **Materials Characterization - Bulk Asbestos Analysis**

### **Laboratory Analysis Report - Polarized Light**

#### **HZW Environmental**

1234 Weathervane Lane, Suite 110  
Akron, OH 44313

**Attn:** Rob Settle

**Customer Project:** Enviroscience ACM Inspections

**Reference #:** CBR24118489

**Date:** 11/18/2024

#### **Analysis and Method**

Summary of polarizing light microscopy (PLM / Stereomicroscopy bulk asbestos analysis) using the methods described in 40CFR Part 763 Appendix E to Subpart E (Interim and EPA 600 / R-93 / 116 (Improved). The sample is first viewed with the aid of stereomicroscopy. Numerous liquid slide preparations are created for analysis under the polarized microscope where identifications and quantifications are performed. Calibrated liquid refractive oils are used as liquid mounting medium. These oils are used for identification (dispersion staining). A calibrated visual estimation is reported, should any asbestiform mineral be present. Other techniques such as acid washing are used in conjunction with refractive oils for detection of smaller quantities of asbestos. All asbestos percentages are based on calibrated visual estimation traceable to NIST standards for regulated asbestos. Traceability to measurement and calibration is achieved by using known amounts and types of asbestos from standards where analyst and laboratory accuracy are measured. As little as 0.001% asbestos can be detected in favorable samples, while detection in unfavorable samples may approach the detection limit of 0.50% (well above the laboratory definition of trace).

#### **Discussion**

Vermiculite containing samples may have trace amounts of actinolite-tremolite, where not found by PLM should be analyzed using TEM methods and / or water separation techniques. Suspected actinolite/vermiculite presence will be indicated through the sample comment section of this report.

Fibrous talc containing samples may even contain a related asbestos fiber known as anthophyllite. Under certain conditions the same fiber may actually contain both talc and anthophyllite (a phenomenon called intergrowth). Again, TEM detection methods are recommended. CA Labs PLM report comments will denote suspected amounts of asbestiform anthophyllite with talc, where further analysis is recommended.

Some samples (floor tiles, surfacings, etc.) may contain fibers too small to be detectable by PLM analysis and should be analyzed by TEM bulk protocols.

A "trace asbestos" will be reported if the analyst observes far less than 1% asbestos. CA Labs defines "trace asbestos" as a few fibers detected by the analyst in several preparations and will indicate as such under these circumstances.

Quantification of <1% will actually be reported as <=1% (allowable variance close to 1% is high). Such results are ideal for point counting, and the technique is mandatory for friable samples (NESHAP, Nov. 1990 and clarification letter 8 May 1991) under 1% percent asbestos and the "trace asbestos". **In order to make all initial PLM reports issued from CA Labs NESHAP compliant, all <1% asbestos results (except floor tiles) will be point counted at no additional charge.**

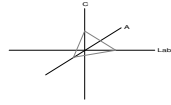
#### **Qualifications**

CA Labs is accredited by the National Voluntary Accreditation Program (NVLAP) for selected test methods for airborne fiber analysis (TEM), and for bulk asbestos fiber analysis (PLM). All analysts have a college degree in a natural science (geology, biology, or environmental science) or are recognized by a state professional board in one these disciplines. Extensive in-house training programs are used to augment education background of the analyst. The group leader of polarized light has received supplemental McCrone Research training for asbestos identification. This report is not covered by the scope of AIHA accreditation. Analysis performed at CA Labs, LLC 12232 Industrilex, Suite 32 Baton Rouge, LA 70809.



**CA Labs**  
**Dedicated to**  
**Quality**

**CA Labs, L.L.C.**  
 12232 Industriplex, Suite 32  
 Baton Rouge, LA 70809  
 Phone 225-751-5632  
 Fax 225-751-5634



**NVLAP #200772-0**  
**TDSHS #300370**  
**CDPHE #AL-18111**  
**LELAP #03069**

## Overview of Project Sample Material Containing Asbestos

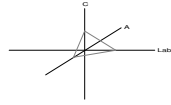
<b>Customer Project:</b>	Enviroscience ACM Inspections	<b>CA Labs Project #:</b>	CBR24118489
Sample #	Layer # Analysts Physical Description of Subsample	Asbestos type / calibrated visual estimate percent	List of Affected Building Material Types

**No Asbestos Detected.**

**Glossary of abbreviations (non-asbestos fibers and non-fibrous minerals):**

ca - carbonate	pe - perlite	fg - fiberglass	pa - palygorskite (clay)
gypsum - gypsum	qu - quartz	mw - mineral wool	
bi - binder		wo - wollastinite	
or - organic		ta - talc	
ma - matrix		sy - synthetic	
mi - mica		ce - cellulose	
ve - vermiculite		br - brucite	
ot - other		ka - kaolin (clay)	

This report relates to the items tested. This report is not to be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST, AIHA LAP, LLC, or any other agency of the federal government. This report may not be reproduced except in full without written permission from CA Labs. These results are submitted pursuant to CA Labs' current terms and sale, condition of sale, including the company's standard warranty and limitations of liability provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, CA Labs will store the samples for a period of ninety (90) days before discarding. A shipping or handling fee may be assessed for the return of any samples.



## Polarized Light Asbestiform Materials Characterization

**Customer Info:** Attn: Rob Settle  
**HzW Environmental**  
1234 Weathervane Lane, Suite 110  
Akron, OH 44313

**Customer Project:**  
Enviroscience ACM  
Inspections

**CA Labs Project #:**  
CBR24118489

Phone # 330-208-2717  
Fax # 330-208-2799

**Turnaround Time:** 3 day


**Date:** 11/18/2024  
**Samples Received:** 11/14/2024  
**Date Of Sampling:** 11/13/2024  
**Purchase Order #:** A2403501

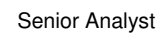
Sample #	Com ment	Layer #	Analysts Physical Description of Subsample	Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
1		1-1	Yellow Foam Insulation	Y	<b>None Detected</b>		100% qu, ot
2		2-1	Yellow Foam Insulation	Y	<b>None Detected</b>		100% qu, ot
3		3-1	Yellow Foam Insulation	Y	<b>None Detected</b>		100% qu, ot
4		4-1	Tan Wrap	Y	<b>None Detected</b>	70% ce	30% qu, ma
		4-2	Black Mastic	Y	<b>None Detected</b>		100% qu, bi
		4-3	Yellow Fibrous Insulation	Y	<b>None Detected</b>	100% fg	
5		5-1	Tan Wrap	Y	<b>None Detected</b>	70% ce	30% qu, ma


Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)  
Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

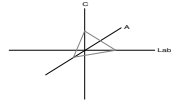
  
Corinne Barr  
Analyst

  
Senior Analyst  
Alicia Stretz

  
Laboratory Director  
Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers  
2. Fire Damage no significant fiber damages effecting fibrous percentages  
3. Actinolite in association with Vermiculite  
4. Layer not analyzed - attached to previous positive layer and contamination is suspected  
5. Not enough sample to analyze

6. Anthophyllite in association with Fibrous Talc  
7. Contamination suspected from other building materials  
8. Favorable scenario for water separation on vermiculite for possible analysis by another method  
9. < 1% Result point counted positive  
10. TEM analysis suggested



**Polarized Light Asbestiform Materials Characterization**

**Customer Info:** Attn: Rob Settle  
**HzW Environmental**  
 1234 Weathervane Lane, Suite 110  
 Akron, OH 44313

**Customer Project:**  
 Enviroscience ACM  
 Inspections

**CA Labs Project #:**  
 CBR24118489

Phone # 330-208-2717  
 Fax # 330-208-2799

**Turnaround Time:** 3 day

**Date:** 11/18/2024  
**Samples Received:** 11/14/2024  
**Date Of Sampling:** 11/13/2024  
**Purchase Order #:** A2403501


Sample #	Com ment	Layer #	Analysts Subsample	Physical Description of	Homo- geneo us (Y/N)	Asbestos type / calibrated visual estimate percent	Non-asbestos fiber type / percent	Non-fibrous type / percent
5-2	Black Mastic				Y	<b>None Detected</b>		100% qu, bi
5-3	Yellow Fibrous Insulation				Y	<b>None Detected</b>		100% fg

Analysis Method: Interim (40CFR Part 763 Appendix E to Subpart E) / Improved (EPA-600 / R-93/116)  
 Preparation Method: HCL acid washing for carbonate based samples, chemical reduction for organically bound components, oil immersion for identification of asbestos types by dispersion attaining / becke line method.

ca - carbonate	mi - mica	fg - fiberglass	ce - cellulose
gypsum - gypsum	ve - vermiculite	mw - mineral wool	br - brucite
bi - binder	ot - other	wo - wollastinite	ka - kaolin (clay)
or - organic	pe - perlite	ta - talc	pa - palygorskite (clay)
ma - matrix	qu - quartz	sy - synthetic	

Approved Signatories:

  
 Corinne Barr  
 Analyst

  
 Senior Analyst  
 Alicia Stretz  
 Laboratory Director  
 Chris Williams

1. Fire Damage significant fiber damage - reported percentages reflect unaltered fibers  
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 7. Contamination suspected from other building materials  
 8. Favorable scenario for water separation on vermiculite for possible analysis by another method  
 9. < 1% Result point counted positive  
 10. TEM analysis suggested

OPR 24118489

Asbestos Bulk Sample Chain of Custody

Project Name:		EnviroScience ACM Inspections		HW Project Number:	AZ603501	
Project Address:		Parcel 17, Garfield Heights, Ohio 44125		Sample Collection Date:	11/19/2024	
Sample #	HA	Material Description	Location	Condition	Filterable (Y/N)	Comment
1		Styrofoam Surfacing Material	Interior	Good	Yes	Stop at First Positive
2		Styrofoam Surfacing Material	Interior	Good	Yes	Stop at First Positive
3		Styrofoam Surfacing Material	Interior	Good	No	Stop at First Positive
4		Pipe Wrap	Interior	Good	No	Stop at First Positive
5		Pipe Wrap	Interior	Good	No	Stop at First Positive
Type of Analysis:		PLM	TEM	Turn Around Time:		Stop at First Positive Three (3) Day Turn
Fax Results: -330-208-2799		Email Results: jbohinger@izveenv.com keamann@izveenv.com				
Received by: (sign & print name)		Date: 11/24/24				
		Date: 10:30				

Shipping @ 30.00

OPR

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**ATTACHMENT D**

**LEAD BASED PAINT FIELD NOTES AND PROPERTY FIGURE/SKETCH**

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11/13/24  
JW

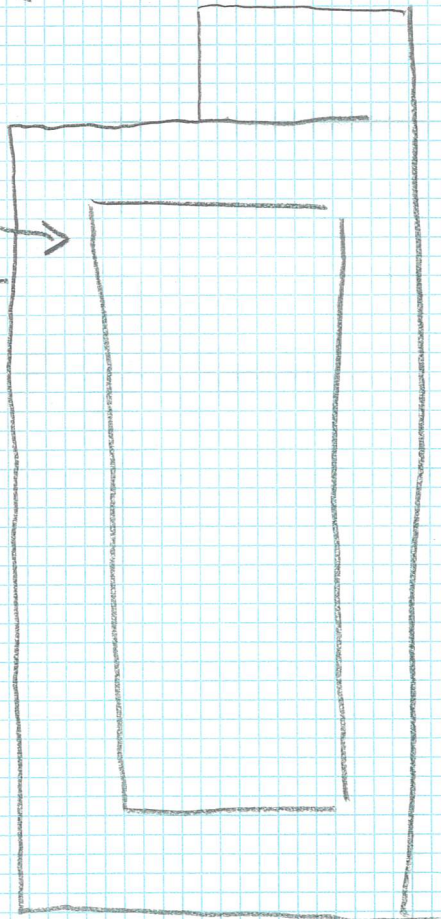
Parcel 17

Lead

① Light blue paint on metal concrete mixer

← 26' →

① Light blue paint on metal

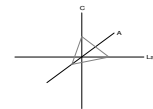


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**ATTACHMENT E**

**LEAD BASED PAINT LABORATORY ANALYTICAL REPORT**

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**Laboratory Report:**  
**Analysis of Lead in Bulk Matrices**  
**by Direct Aspiration Flame Atomic Absorption Spectrophotometry**  
**(FAAS)**

*11/18/2024*

**HzW Environmental Consultants**

1234 Weathervane Lane Suite 110  
Akron, OH 44313

*Client Project Name/Number: Enviroscience Lead Inspections/A2403501*

Laboratory Project Number: CBR24118488

Attention: ***Kevin Reaman***

Please find enclosed the analytical results for samples received by the laboratory on ***11/14/2024***. These results relate only to the samples included in this report. All reported results conform to the requirements of the laboratory's accrediting agency for the method utilized and to the laboratory's internal Quality Assurance program unless otherwise noted.

This report may only be reproduced in its entirety.

Please contact laboratory management directly with any questions concerning this report.

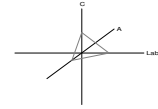
Sincerely,

Christopher Williams  
Technical Manager

---

CA Labs LLC





**Laboratory Report:**  
**Analysis of Lead in Bulk Matrices**  
**by Direct Aspiration Flame Atomic Absorption Spectrophotometry**  
**(FAAS)**

Analysis Method: EPA SW-846 Method 7000B: *Flame Atomic Absorption Spectrophotometry*

Preparation Method: All samples are prepared in accordance with EPA SW-846 Method 3050: "Hotplate" method

**Client Information:**HzW Environmental  
1234 Weathervane Lane, Ste110  
Akron, OH 44313**Client Project:**

Enviroscience Lead Inspections

**CA Labs Project #:**

CBR24118488

**Date:** 11/18/2024**Phone:** 330-208-2717**Turnaround Time:** 3 day**Samples Received:** 11/14/2024**Fax:** 330-208-2799**Attn:** Kevin Reaman**Purchase Order #:** A2403501Date Collected: 11/13/2024Date Prepared: 11/15/2024Date Analyzed: 11/15/2024Batch ID: 111524Sample Results:

Sample ID:	Sample Description:	Matrix:	LOD (PPM):	Result (PPM):	LOD (Weight %):	Result (Weight %):	Qualifiers:
1	Light Blue Paint on Metal	P	77.97	<77.97	0.0078	<0.0078	N/A

\*Qualifier Key: 1 – Sample non-homogeneous; 2 – Sample wet, drying required; 3 – Sample concentration outside of calibration range, dilution required

\*\*Limits of Detection (LOD) are controlled by the amount of sample weighed. When possible enough sample is weighed to meet at least an 90ppm LOD. LOD may vary from sample to sample based on exact weight of sample used.

*This method is not accredited by NVLAP*

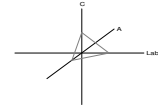
Corinne Barr  
Analyst

LELAP Lab ID #03069

Page 2 of 3

Approved Signatories:

Christopher Williams  
Laboratory DirectorAlicia Stretz  
Senior Analyst



**Laboratory Report:**  
**Analysis of Lead in Bulk Matrices**  
**by Direct Aspiration Flame Atomic Absorption Spectrophotometry**  
**(FAAS)**

Analysis Method: EPA SW-846 Method 7000B: *Flame Atomic Absorption Spectrophotometry*

Preparation Method: All samples are prepared in accordance with EPA SW-846 Method 3050: "Hotplate" method

**Client Information:**  
HzW Environmental  
1234 Weathervane Lane, Ste110  
Akron, OH 44313**Client Project:**  
Enviroscience Lead Inspections**CA Labs Project #:**  
CBR24118488**Date:** 11/18/2024**Phone:** 330-208-2717**Turnaround Time:** 3 day**Samples Received:** 11/14/2024**Fax:** 330-208-2799**Attn:** Kevin Reaman**Purchase Order #:** A2403501**Quality Control**

<u>Sample ID:</u>	<u>Result</u> <u>(PPM):</u>	<u>Expected</u> <u>(PPM):</u>	<u>%</u> <u>REC:</u>	<u>Lower</u> <u>Limit:</u>	<u>Upper</u> <u>Limit:</u>	<u>RPD:</u>	<u>RPD</u> <u>Limit:</u>
Method Blank	-0.098	---	---	-0.2 PPM	0.2 PPM	---	---
Laboratory Control Sample	4058.91	4,490	90.40	80%	120%	---	---
Duplicate ( <i>LCS</i> )	4082.05	4058.91	---	---	---	0.57	25%
Matrix Spike	5.148	5.00	102.96	75%	125%	---	---

*This method is not accredited by NVLAP*Corinne Barr  
Analyst

LELAP Lab ID #03069

Page 3 of 3

Approved Signatories:

Christopher Williams  
Laboratory DirectorAlicia Stretz  
Senior Analyst

CDR 24118488

**Lead Bulk Sample Chain of Custody**

Project Name:		Elyria Science Lead Inspections		HWV Project Number:	A2403501
Project Address:		Parcel 17, Garfield Heights, Ohio 44125		Sample Collection Date:	11/13/2024
Sample #	HA	Material Description	Location	Condition	Comment
1		Light Blue paint on Metal	Exterior Garage Door	Good	Stop at First Positive
Type of Analysis:	Lead		Stop at First Positive	Turn Around Time:	Three (3) Day Turn
Fax Results:	330-208-2799			Email Results:	kreaman@lwenv.com; jwhngert@lwenv.com
*Note: Analyze multi-layered paint chips as a single layer.					
Relinquished by: (sign & print name)					
Received by:					

*CSJ*

11/14/24  
10:30

---

**ATTACHMENT F**

**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 19, 2024

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

RE: Parcel 17-Garfield Heights

Dear Kevin Reaman:

Order No.: 24111045

Summit Environmental Technologies, Inc. received 6 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,

A handwritten signature in black ink that reads "Holly Florea". The signature is written in a cursive, flowing style.

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



**SUMMIT**  
ENVIRONMENTAL TECHNOLOGIES, INC.  
Analytical Laboratories

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

## Case Narrative

WO#: 24111045  
Date: 11/19/2024

---

**CLIENT:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights

---

### WorkOrder Narrative:

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.

### Analytical Sequence Sample Notes:

24111045-005A PctMoist\_S(2540): Parent sample and DUP exhibited high RPD due to suspected sample inhomogeneity.

24111045-005A Mtl-ICP\_S(6010D): Corresponding MS/MSD spike recoveries unable to be accurately resolved due to parent sample concentration. LCS demonstrates control.

---

Original



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Website: <http://www.settek.com>

## Workorder Sample Summary

WO#: 24111045  
19-Nov-24

---

**CLIENT:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights

---

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
24111045-001	Parcel 17-1		11/13/2024 12:30:00 PM	11/14/2024 8:20:00 AM	Solid
24111045-002	Parcel 17-2		11/13/2024 12:32:00 PM	11/14/2024 8:20:00 AM	Solid
24111045-003	Parcel 17-3		11/13/2024 12:34:00 PM	11/14/2024 8:20:00 AM	Solid
24111045-004	Parcel 17-4		11/13/2024 12:36:00 PM	11/14/2024 8:20:00 AM	Solid
24111045-005	Parcel 17-5		11/13/2024 12:38:00 PM	11/14/2024 8:20:00 AM	Solid
24111045-006	Parcel 17-6		11/13/2024 12:40:00 PM	11/14/2024 8:20:00 AM	Solid



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# Analytical Report

(consolidated)

WO#: 24111045

Date Reported: 11/19/2024

**CLIENT:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights  
**Lab ID:** 24111045-001  
**Client Sample ID:** Parcel 17-1

**Collection Date:** 11/13/2024 12:30:00 PM

**Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS ANALYSIS (6010D)</b>					<b>SW6010</b>	<b>SW3050B</b> Analyst: <b>RJE</b>
Aluminum(Al)	13200	2540		mg/Kg-dry	100	11/19/2024 11:15:00 AM
Magnesium(Mg)	11000	1020		mg/Kg-dry	100	11/19/2024 11:15:00 AM
Manganese(Mn)	234	2.54		mg/Kg-dry	1	11/18/2024 10:32:00 AM
<b>PERCENT MOISTURE BY SM2540MOD</b>					<b>A2540B</b>	Analyst: <b>JPN</b>
Percent Moisture	4.43	0.200		%	1	11/14/2024 6:10:00 PM

<b>Qualifiers:</b>	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#: 24111045

Date Reported: 11/19/2024

**CLIENT:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights  
**Lab ID:** 24111045-002  
**Client Sample ID:** Parcel 17-2

**Collection Date:** 11/13/2024 12:32:00 PM

**Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS ANALYSIS (6010D)</b>				<b>SW6010</b>	<b>SW3050B</b>	Analyst: <b>RJE</b>
Aluminum(Al)	8640	2470		mg/Kg-dry	100	11/19/2024 11:25:00 AM
Magnesium(Mg)	6780	989		mg/Kg-dry	100	11/19/2024 11:25:00 AM
Manganese(Mn)	168	2.47		mg/Kg-dry	1	11/18/2024 10:35:00 AM
<b>PERCENT MOISTURE BY SM2540MOD</b>				<b>A2540B</b>		Analyst: <b>JPN</b>
Percent Moisture	11.3	0.200		%	1	11/14/2024 6:10:00 PM

<b>Qualifiers:</b>	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#: 24111045

Date Reported: 11/19/2024

**CLIENT:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights  
**Lab ID:** 24111045-003  
**Client Sample ID:** Parcel 17-3

**Collection Date:** 11/13/2024 12:34:00 PM

**Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS ANALYSIS (6010D)</b>					<b>SW6010</b>	<b>SW3050B</b> Analyst: <b>RJE</b>
Aluminum(Al)	13300	494		mg/Kg-dry	20	11/19/2024 11:32:00 AM
Magnesium(Mg)	20300	988		mg/Kg-dry	100	11/19/2024 11:28:00 AM
Manganese(Mn)	850	49.4		mg/Kg-dry	20	11/19/2024 11:32:00 AM
<b>PERCENT MOISTURE BY SM2540MOD</b>					<b>A2540B</b>	Analyst: <b>JPN</b>
Percent Moisture	2.70	0.200		%	1	11/14/2024 6:10:00 PM

<b>Qualifiers:</b>	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#: 24111045

Date Reported: 11/19/2024

**CLIENT:** HZW Environmental **Collection Date:** 11/13/2024 12:36:00 PM  
**Project:** Parcel 17-Garfield Heights  
**Lab ID:** 24111045-004 **Matrix:** SOLID  
**Client Sample ID:** Parcel 17-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS ANALYSIS (6010D)</b>					<b>SW6010</b>	<b>SW3050B</b> Analyst: <b>RJE</b>
Aluminum(Al)	17000	447		mg/Kg-dry	20	11/19/2024 11:39:00 AM
Magnesium(Mg)	15300	894		mg/Kg-dry	100	11/19/2024 11:35:00 AM
Manganese(Mn)	1120	44.7		mg/Kg-dry	20	11/19/2024 11:39:00 AM
<b>PERCENT MOISTURE BY SM2540MOD</b>					<b>A2540B</b>	Analyst: <b>JPN</b>
Percent Moisture	1.90	0.200		%	1	11/14/2024 6:10:00 PM

<b>Qualifiers:</b>	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#: 24111045

Date Reported: 11/19/2024

**CLIENT:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights  
**Lab ID:** 24111045-005  
**Client Sample ID:** Parcel 17-5

**Collection Date:** 11/13/2024 12:38:00 PM

**Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS ANALYSIS (6010D)</b>					<b>SW6010</b>	<b>SW3050B</b> Analyst: <b>RJE</b>
Aluminum(Al)	8750	2480		mg/Kg-dry	100	11/19/2024 11:42:00 AM
Magnesium(Mg)	8030	990		mg/Kg-dry	100	11/19/2024 11:42:00 AM
Manganese(Mn)	187	2.48	QM-	mg/Kg-dry	1	11/18/2024 10:45:00 AM
<b>PERCENT MOISTURE BY SM2540MOD</b>					<b>A2540B</b>	Analyst: <b>JPN</b>
Percent Moisture	14.4	0.200	QDR	%	1	11/14/2024 6:10:00 PM

<b>Qualifiers:</b>	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



# Analytical Report

(consolidated)

WO#: **24111045**

Date Reported: **11/19/2024**

**CLIENT:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights  
**Lab ID:** 24111045-006  
**Client Sample ID:** Parcel 17-6

**Collection Date:** 11/13/2024 12:40:00 PM

**Matrix:** SOLID

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>METALS ANALYSIS (6010D)</b>					<b>SW6010</b>	<b>SW3050B</b> Analyst: <b>RJE</b>
Aluminum(Al)	11600	2500		mg/Kg-dry	100	11/19/2024 11:45:00 AM
Magnesium(Mg)	13600	1000		mg/Kg-dry	100	11/19/2024 11:45:00 AM
Manganese(Mn)	357	2.50		mg/Kg-dry	1	11/18/2024 10:55:00 AM
<b>PERCENT MOISTURE BY SM2540MOD</b>					<b>A2540B</b>	Analyst: <b>JPN</b>
Percent Moisture	1.09	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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 Cuyahoga Falls, Ohio 44223  
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# QC SUMMARY REPORT

WO#: 24111045

19-Nov-24

**Client:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights

**BatchID:** 80238

Sample ID: <b>MB-80238</b>	SampType: <b>MBLK</b>	TestCode: <b>Mtl-ICP_S(60)</b>	Units: <b>mg/Kg</b>	Prep Date: <b>11/15/2024</b>	RunNo: <b>197202</b>						
Client ID: <b>PBS</b>	Batch ID: <b>80238</b>	TestNo: <b>SW6010</b>	<b>SW3050B</b>	Analysis Date: <b>11/18/2024</b>	SeqNo: <b>5333234</b>						
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: <b>LCS-80238</b>	SampType: <b>LCS</b>	TestCode: <b>Mtl-ICP_S(60)</b>	Units: <b>mg/Kg</b>	Prep Date: <b>11/15/2024</b>	RunNo: <b>197202</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>80238</b>	TestNo: <b>SW6010</b>	<b>SW3050B</b>	Analysis Date: <b>11/18/2024</b>	SeqNo: <b>5333235</b>						
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: <b>LCS-80238</b>	SampType: <b>LCS</b>	TestCode: <b>Mtl-ICP_S(60)</b>	Units: <b>mg/Kg</b>	Prep Date: <b>11/15/2024</b>	RunNo: <b>197202</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>80238</b>	TestNo: <b>SW6010</b>	<b>SW3050B</b>	Analysis Date: <b>11/18/2024</b>	SeqNo: <b>5333236</b>						
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				

<b>Qualifiers:</b>	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#: 24111045

19-Nov-24

**Client:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights

**BatchID:** 80238

Sample ID: <b>24111045-005AMS</b>	SampType: <b>MS</b>	TestCode: <b>Mtl-ICP_S(60)</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>11/15/2024</b>	RunNo: <b>197202</b>						
Client ID: <b>Parcel 17-5</b>	Batch ID: <b>80238</b>	TestNo: <b>SW6010</b>	<b>SW3050B</b>	Analysis Date: <b>11/18/2024</b>	SeqNo: <b>5333247</b>						
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: <b>24111045-005AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>Mtl-ICP_S(60)</b>	Units: <b>mg/Kg-dry</b>	Prep Date: <b>11/15/2024</b>	RunNo: <b>197202</b>						
Client ID: <b>Parcel 17-5</b>	Batch ID: <b>80238</b>	TestNo: <b>SW6010</b>	<b>SW3050B</b>	Analysis Date: <b>11/18/2024</b>	SeqNo: <b>5333248</b>						
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#: 24111045

19-Nov-24

**Client:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights

**BatchID: R197076**

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

Sample ID: <b>24111030-003ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>PctMoist_S(2)</b>	Units: %	Prep Date:	RunNo: <b>197076</b>						
Client ID: <b>BatchQC</b>	Batch ID: <b>R197076</b>	TestNo: <b>A2540B</b>		Analysis Date: <b>11/14/2024</b>	SeqNo: <b>5330213</b>						
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: <b>24111045-005ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>PctMoist_S(2)</b>	Units: %	Prep Date:	RunNo: <b>197076</b>						
Client ID: <b>Parcel 17-5</b>	Batch ID: <b>R197076</b>	TestNo: <b>A2540B</b>		Analysis Date: <b>11/14/2024</b>	SeqNo: <b>5330223</b>						
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  
 ND Not Detected  
 RL Reporting Detection Limit

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area respons  
 R RPD 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

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

### Acronyms

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



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Cuyahoga Falls, Ohio 44223  
TEL: (330) 253-8211 FAX: (330) 253-4489  
Website: <http://www.settek.com>

# DATES REPORT

WO#: 24111045  
19-Nov-24

**Client:** HZW Environmental  
**Project:** Parcel 17-Garfield Heights

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	Leachate Date	Prep Date	Analysis Date
24111045-001A	Parcel 17-1	11/13/2024 12:30:00 PM	Solid	Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:15:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 10:32:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM
24111045-002A	Parcel 17-2	11/13/2024 12:32:00 PM		Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 10:35:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:25:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM
24111045-003A	Parcel 17-3	11/13/2024 12:34:00 PM		Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:32:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 10:38:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:28:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM
24111045-004A	Parcel 17-4	11/13/2024 12:36:00 PM		Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:35:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:39:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 10:42:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM
24111045-005A	Parcel 17-5	11/13/2024 12:38:00 PM		Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 10:45:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:42:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM
24111045-006A	Parcel 17-6	11/13/2024 12:40:00 PM		Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/18/2024 10:55:00 AM
				Metals Analysis (6010D)		11/15/2024 9:00:00 AM	11/19/2024 11:45:00 AM
				Percent Moisture by SM2540Mod			11/14/2024 6:10:00 PM

Original

# Analysis Request / Chain of Custody

Refer to Terms and Conditions at [www.settek.com](http://www.settek.com)

SET  
 WO  
 NO.: **24111045**  
 For Summit Environmental Technologies, Inc. use only

**Client Name:** HZW  
**Client Street Address:** 1234 Weatherlane Ln  
**City:** Akron **State:** OH **Zip:** 44317  
**Client Phone:** (330) 208-2717  
**Contact Person:** Kevin Reaman  
**Client Email Address:** kreaman@hzwenv.com  
**Print:** *Kevin Reaman*  
**Sign:** *Kevin Reaman*  
 For DW only, results to be reported to state by lab? If yes, lab fee may apply:  Y  N

**Project Identification:** Parcel 17 - Garfield Heights  
**Project Street Address:** Garfield Hts, OH 4425  
**City:** Garfield Hts, OH **State:** OH **Zip:** 4425  
**Report To:** Kevin Reaman  
**PO #:** A2403501 **Quote Number:**  
**PWS ID:** **Facility ID:**

**Reporting/Accreditation Requirements:**  
 Ohio VAP  Ohio EPA Pb, Cu  
 Drinking Water Compliance  
 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)
										Total aluminum	Magnesium	Manganese	
1		Parcel 17-1											
2		Parcel 17-2	11/13/24	12:30	X	S	7	1	X	X	X		
3		Parcel 17-3		12:32	X	S	7	1	X	X	X		
4		Parcel 17-4		12:34	X	S	7	1	X	X	X		
5		Parcel 17-5		12:36	X	S	7	1	X	X	X		
6		Parcel 17-6		12:38	X	S	7	1	X	X	X		
				12:40	X	S	7	1	X	X	X		

**Relinquished by:** *Kevin Reaman* **Date:** 11/14/24 **Time:** 8:18  
**Received by:** *Client* **Date:** **Time:**

**Received at Summit by:** *C. [Signature]* **Date:** 11/14/24 **Time:** 0520 **Carrier:** Client

**Rush Requested:** \_\_\_\_\_ **Day(s):** \_\_\_\_\_  
 Must be approved by Lab Manager

**Notes / Comments:**  
 Standard turn  
 Dry weight analysis

Sufficient volume provided to run QC?  YES  NO  
 Cooler?  YES  NO

Received Temp.: 8.2 °C  
 Cooler Seals?  PRESENT  NOT PRESENT  N/A  
 Ice Present?  YES  NO  MELTED


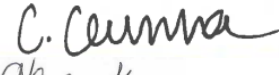

S-3-U-1=

# Sample Log-In Check List

Client Name: HZW-OH-44313

Work Order Number: 24111045

RcptNo: 1

Logged by:	Christina N. Gemma	11/14/2024 8:20:00 AM	  
Completed By:	Christina N. Gemma	11/14/2024 4:07:05 PM	
Reviewed By:	Holly Florea	11/15/2024 10:57:33 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			