



# **REQUEST FOR PROPOSALS**

## ***Morgan Park***

### ***Vacant House Asbestos Abatement and Demolition/Removal***

Portage Park District is soliciting proposals from contractors for asbestos abatement, demolition and removal of a vacant house located on park property, 8505 Nicodemus Road, Shalersville Township, Portage County, Ohio.

#### **Introduction**

Portage Park District owns Morgan Park, including a former farmstead that will be used by the Park District as an Operations Center. The agricultural buildings are being repurposed for park equipment storage, workshop and field offices. The house is not in suitable condition for re-use by the park district, but the sandstone foundation blocks are to be relocated on park property for future use. In anticipation of demolition, the Park District commissioned an asbestos assessment, attached, which indicated the need for abatement.

#### **Project Scope: Contractors may submit proposals for parts I. and/or II. below:**

- I. Asbestos Abatement
  - a. Obtain and coordinate all necessary permits on behalf of Portage Park District
  - b. Abate/remove asbestos per current regulations and asbestos report recommendations
- II. House Removal
  - a. Obtain and coordinate all necessary permits on behalf of Portage Park District
  - b. Sever and stub existing gas and electric utilities
  - c. Remove structure from park property
  - d. Excavate sandstone foundation blocks and relocate near storage building on site
  - e. Fill, grade, seed and mulch for site restoration
  - f. Excavate approximately 6" of degraded recycled concrete from the floor of an adjacent 5,000 sf storage building for use as fill in restoration or removed from site.

#### **Submittal of Proposal**

Submit one PDF of the proposal form labeled "Morgan Park House Demolition" via email or flash drive by 2:00 p.m. December 16th to:

Christine Craycroft, Executive Director

Portage Park District

705 Oakwood St., Suite G-4, Ravenna, OH 44266

[ccraycroft@portageparkdistrict.org](mailto:ccraycroft@portageparkdistrict.org); cc: [admin@portageparkdistrict.org](mailto:admin@portageparkdistrict.org)

The proposal shall include at a minimum, the following information:

1. Statement of the qualifications and experience of the contractor and any subcontractors, including references and recent relevant jobs
2. Proposal Form, attached

# Morgan Park House Demolition

## PROPOSAL FORM

Business Name: \_\_\_\_\_

Business Address: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact phone/email: \_\_\_\_\_

Subconsultants, if any; \_\_\_\_\_

### Lump Sum Fee Proposal

I. Asbestos Abatement \$ \_\_\_\_\_

Estimated number of days to completion after contract award: \_\_\_\_\_

II. House removal \$ \_\_\_\_\_

Estimated number of days to completion after contract award: \_\_\_\_\_

Submitted by:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Printed Name \_\_\_\_\_



# Asbestos Hazard Assessment Report



8828 State Route 44  
Ravenna, Ohio 44266

PREPARED FOR

Craig Alderman  
Portage Park District  
705 Oakwood Street  
Suite G4  
Ravenna, Ohio 44266  
330-388-5461

Emerald Project # 9604  
November 20, 2019

ENVIRONMENTAL

INDUSTRIAL HYGIENE

WASTE MANAGEMENT



800-570-0690  
[www.emerald-environmental.com](http://www.emerald-environmental.com)  
KENT-AKRON-CLEVELAND



## 1 GENERAL PROJECT INFORMATION

### 1.1 ASSESSMENT AND SAMPLING PROCEDURES

EEI conducted an asbestos hazard assessment of the facility located at the captioned site. This asbestos assessment report presents data that describes the condition and location of asbestos-containing material (ACM) identified at this facility. This assessment was conducted to identify all friable and non-friable asbestos-containing materials in the facility. Friable materials are materials that, when dry, can be crushed, pulverized, or reduced to powder by hand pressure.

Bulk samples are collected using United States Environmental Protection Agency (EPA) guidelines in 40 CFR Part 763.86 for the type of suspect material sampled. Where practical, sample locations are determined using random sampling methods. Within each area, samples are collected where minimal damage will occur to facility structures or finishes. A particular suspect material may be found in several different locations within a facility. EPA does not require that these materials be sampled in each location, provided the materials are of the same type, age, appearance, have the same date of installation, and are sampled in accordance with Asbestos Hazard Emergency Response Act (AHERA) requirements to provide statistically reliable data that can be extrapolated onto all remaining non-sampled areas.

EPA/AHERA-accredited inspectors determine the number of samples of each material to be collected, depending upon the material's category and the amount of material present. The objective of the AHERA protocol is to ensure that statistically reliable data is collected. This is accomplished by requiring or suggesting a minimum number of samples to be collected and, in some cases, by requiring the use of random sampling techniques to determine sample locations. However, in every case, AHERA relies on the judgment of inspectors experienced in AHERA methodology and with the type of facility being inspected.

### 1.2 METHOD OF LABORATORY ANALYSIS

Samples are analyzed in accordance with AHERA requirements using the following reference methods:

- EPA Interim Method for the Detection of Asbestos in Bulk Insulation Samples (EPA 600/M4-82020, December 1982).
- McCrone Research Institute's The Asbestos Particle Atlas.

All bulk samples are analyzed using polarized light microscopy (PLM) visual area estimation (VAE). Friable materials containing asbestos estimated at less than ten percent by PLM-VAE are reanalyzed by PLM point counting. Additional treatment and tests may be used as required to accurately define composition (i.e., ashing, extractions, and transmission electron microscopy (TEM)). All bulk sample laboratory reports are verified through an established quality assurance (QA) procedure. Unused portions of samples are archived for a minimum of six months.



### 1.3 QUALITY CONTROL PROCEDURES

All samples are analyzed by laboratories accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). These laboratories participate in the NVLAP, as well as the American Industrial Hygiene Association (AIHA) Bulk Asbestos Sample Quality Assurance Program. EEI verifies all sample data for accuracy by cross-referencing field data sheets, chain of custody forms, and field notes.

### 1.4 DETERMINATION OF ACM CLASSIFICATION

The positive identification of asbestos in a material or product can only be made through laboratory analysis. The asbestos content of a suspect material is determined by collecting a bulk sample and having it analyzed by PLM. The PLM technique determines the specific type of asbestos present in the bulk sample and VAE provides an estimate of the percentage of asbestos.

The EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) - National Emission Standard for Asbestos (40 CFR Part 61, Subpart M) defines a non-friable asbestos-containing material as any material with an asbestos content greater than one percent as determined by PLM analysis, that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure. A friable material estimated to contain less than ten percent asbestos as determined by PLM-VAE must be analyzed by PLM point counting and determined to contain less than one percent asbestos in order to be considered a non-regulated ACM.

A clarification memorandum issued by the EPA regarding the NESHAP regulation included the following statement:

"The parties legally responsible for a building (owner or operator) may take a conservative approach to being regulated by the NESHAP. The responsible party may choose to act as though the building material is an asbestos-containing material (greater than 1%) at any level of asbestos content (even less than 1% asbestos). Thus, if the analyst detects asbestos in the sample and estimates the amount to be less than 10% by visual estimation, the parties legally responsible (owner or operator) for the building may (1) elect to assume the amount to be greater than 1% and treat the material as regulated asbestos-containing material or (2) require verification of the amount by point counting."

Therefore, suspect material samples containing less than ten percent, but more than one- percent asbestos as determined by PLM-VAE are, for the purpose of this report, considered to be ACM. No distinction will be made between these materials and those classified as ACM by EPA definition. However, in most cases, material samples with asbestos content of one percent or less as determined by PLM-VAE are classified as "assumed ACM" and are so addressed in this report. Materials either "considered" or "assumed" ACM may be analyzed by PLM point counting to provide a more definitive result regarding the percentage of asbestos content.

### 1.5 ASSESSMENT LIMITS

EEI conducted an asbestos hazard assessment, as well as a sampling and analysis program, to determine if ACM is present, in accordance with the OSHA Asbestos in Construction standard, 29 CFR 1926.1101, and the AHERA regulation 40 CFR part 763. All activities were conducted in accordance with AHERA sampling



protocols. Any suspect materials that are encountered in the facility that are not identified in this report must be assumed ACM until testing proves otherwise. Selective, accessible portions of the facility were visually inspected based on information provided and samples were secured for suspect asbestos containing materials.

Potential materials may exist within walls and pipe chases or above ceilings that were inaccessible during the inspection and may become visible during demolition/renovation activities.

## **2 HAZARD COMMUNICATION**

The information contained in this report should be conveyed to contractors that will be working in the facility to satisfy the hazard communication requirements of the OSHA Asbestos in Construction Standard, 29 CFR 1926.1101. Materials containing asbestos may remain in the building.

## **3 RECOMMENDATIONS**

The assessment represented by this report was conducted to meet the regulatory requirements for the demolition/renovation of facilities. Based on the general NESHAP requirements, EEI recommends that all regulated asbestos containing material (RACM), both friable and non-friable that may become friable (that are present in quantities at, or in excess of, the regulatory limits of 260 linear feet of RACM on pipes, 160 square feet of RACM on other facility components, or 35 cubic feet of RACM on other facility components), be removed prior to demolition/renovation. All ACM which remains within the facility is required to be listed in the Notice of Demolition or Renovation to the local representative of the EPA in compliance with NESHAPS.

This recommendation is based on standard demolition/renovation practices and their impact on building materials. In the event particular demolition/renovation techniques are to be used, (e.g. mechanical crushing, grinding, etc.) all non-friable asbestos containing materials shall be assessed for their potential to become friable during the non-standard demolition process. If the utilized non-standard demolition/renovation procedures are assessed and it is determined that they will render the asbestos containing materials friable, the material becomes RACM and must be abated prior to demolition/renovation. Any additional ACM or PACM identified in this report that may become friable during demolition/renovation activities shall also be removed prior to demolition/renovation.

This report describes the locations of ACM identified in the facility located at the captioned site. Please refer to Appendix A for a summary of suspect materials and detailed recommendations. Please refer to Appendix B for sample locations and laboratory results. EEI represents that our services are performed within the limits prescribed by applicable regulations and in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representation is made to the client, expressed or implied, and no warranty or guarantee is included or intended.

The classification of friability is based on the building inspector's observations at the time of the inspection. Deterioration over time can affect the friability of the building materials. If there is an extended delay between the survey and the abatement and/or demolition of the building, EEI recommends that a visual inspection by a qualified inspector be conducted prior to abatement and demolition to determine if the condition of the materials have changed since the survey. Current guidance from regulatory agencies recommend a survey or inspection be conducted within a year prior to the demolition.



Please contact the undersigned if you require any additional information. Thank you for consulting Emerald Environmental, Inc.

Sincerely,  
**EMERALD ENVIRONMENTAL, INC.**

A handwritten signature in blue ink, appearing to read "W. Mello", with a long horizontal flourish extending to the right.

William Mello, CAHES #ES35450

Attachments



# APPENDIX A

## SUSPECT MATERIAL SUMMARY



## Suspect Material Summary

Inspector: William Mello  
 CAHES #: ES35450  
 Inspector:  
 CAHES #:  
 Address: 8828 SR 44, Ravenna, Ohio  
 Build Date: 1840  
 Square Feet: 1,600

Suspect Material Description	Location	HA#	Quantity	ACM (type and %)	Friable ACM <sup>1</sup>	Non Friable ACM <sup>2</sup>	Contains Not More Than 1% Asbestos <sup>3</sup>
PLASTER CEILING	1ST FLOOR	PC1	700 SF	NON-ASBESTOS			
PLASTER CEILING - SINGLE LAYER	2ND FLOOR	PC2	800 SF	NON-ASBESTOS			
PLASTER WALL ON DRYWALL LATH	1ST FLOOR	TS1	1,200 SF	NON-ASBESTOS			
PLASTER WALL - BROWN	2ND FLOOR	TM1	350 SF	NON-ASBESTOS			
DRYWALL WALL SYSTEM	THROUGHOUT	DWW1	1,500 SF	2% CHRYSOTILE ASBESTOS	X		
DRYWALL CEILING WITH ROUGH TEXTURE	SOUTH BEDROOM (FIRST FLOOR) AND SECOND FLOOR	DWC1 AND RT1	1,100 SF	NON-ASBESTOS			
DRYWALL CEILING WITH TROWLED TEXTURE	NORTH BEDROOM (FIRST FLOOR)	DWC1 AND TRT1	180 SF	5% CHRYSOTILE ASBESTOS	X		
12"X12" TAN SELF ADHESIVE FLOOR TILE	STORAGE ROOM OFF OF KITCHEN	FT1	150 SF	ASSUMED ASBESTOS		X	
12"X12" GREEN SELF ADHESIVE FLOOR TILE	KITCHEN	FT2	300 SF	ASSUMED ASBESTOS		X	
12"X12" BLACK SELF ADHESIVE FLOOR TILE	BATHROOM	FT3	60 SF	ASSUMED ASBESTOS		X	
TUB SURROUND MASTIC	BATHROOM	TSM1	50 SF	ASSUMED ASBESTOS		X	
STAINLESS STEEL SINK COATING	KITCHEN	SS1	1	ASSUMED ASBESTOS		X	
VERMICULITE INSULATION	ATTIC	VI1	3 CY	ASSUMED ASBESTOS	X		
ASPHALT SHINGLE ROOFING	EXTERIOR	R1	1900 SF	ASSUMED ASBESTOS		X	

1. These materials are friable or will become friable during demolition/renovation activities. These materials **must** be removed prior to demolition/renovation activities.

2. These materials do not generally need to be removed prior to demolition/renovation. These materials, however, **may** need to be removed if they become friable based on the types of procedures and equipment utilized during the demolition/renovation operations. All category I and category II non-friable ACM shall be assessed for potential friability based upon procedures utilized for removal. If the utilized procedures render the material friable, the material is classified as RACM and must be abated.

3. These materials are not regulated under NESHAPS or AHERA. However, potential exposure to asbestos from these materials is still regulated under the OSHA Asbestos in Construction Standard, 29 CFR 1926.1101. This standard establishes exposure limits, work practices and notification requirements for employers whose employees may be exposed to the asbestos as a result of demolition or renovation activities involving these materials.



APPENDIX B

VISUAL AREA ESTIMATION

POLARIZED LIGHT MICROSCOPY (PLM)

LABORATORY RESULTS

November 18, 2019

Emerald Environmental  
1621 Saint Clair Ave  
Kent, OH 44240

**CLIENT PROJECT:** 9604, 8505 Nicodemus  
**CEI LAB CODE:** A1919170

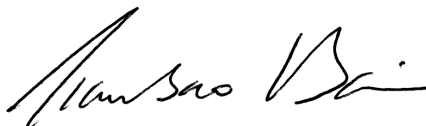
Dear Customer:

Enclosed are asbestos analysis results for PLM Bulk samples received at our laboratory on November 13, 2019. The samples were analyzed for asbestos using polarizing light microscopy (PLM) per the EPA 600 Method.

Sample results containing >1% asbestos are considered asbestos-containing materials (ACMs) per EPA regulatory requirements. The detection limit for the EPA 600 Method is <1% asbestos by weight as determined by visual estimation.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH  
Laboratory Director



CEI

**AMENDED**

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# **ASBESTOS ANALYTICAL REPORT**

## **By: Polarized Light Microscopy**

Prepared for

**Emerald Environmental**

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CLIENT PROJECT: 9604, 8505 Nicodemus

LAB CODE: A1919170

TEST METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

REPORT DATE: 11/15/19

TOTAL SAMPLES ANALYZED: 22

# SAMPLES >1% ASBESTOS: 4

PROJECT: 9604, 8505 Nicodemus

LAB CODE: A1919170

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
8828-1112-01	Layer 1	A270728	White	Plaster Skim Coat	None Detected
	Layer 2	A270728	Gray	Plaster Base Coat	None Detected
8828-1112-02	Layer 1	A270729	White	Plaster Skim Coat	None Detected
	Layer 2	A270729	Gray	Plaster Base Coat	None Detected
8828-1112-03	Layer 1	A270730	White	Plaster Skim Coat	None Detected
	Layer 2	A270730	Gray	Plaster Base Coat	None Detected
8828-1112-04		A270731	Gray	Plaster	None Detected
8828-1112-05		A270732	Gray	Plaster	None Detected
8828-1112-06	Layer 1	A270733A	White	Plaster Skim Coat	None Detected
	Layer 2	A270733A	Gray	Plaster Base Coat	None Detected
		A270733B	Gray	Drywall	None Detected
8828-1112-07		A270734A	Brown	Mastic	None Detected
	Layer 1	A270734B	White	Plaster Skim Coat	None Detected
	Layer 2	A270734B	Gray	Plaster Base Coat	None Detected
		A270734C	Gray	Drywall	None Detected
8828-1112-08	Layer 1	A270735	White	Plaster Skim Coat	None Detected
	Layer 2	A270735	Gray	Plaster Base Coat	None Detected
8828-1112-09		A270736	Brown	Plaster Base Coat	None Detected
8828-1112-10		A270737	Brown	Plaster Base Coat	None Detected
8828-1112-11	Layer 1	A270738	White	Joint Compound	None Detected
	Layer 2	A270738	Gray	Drywall	None Detected
8828-1112-12	Layer 1	A270739	Beige	Joint Compound	Chrysotile 2%
	Layer 2	A270739	White	Drywall	None Detected
8828-1112-13	Layer 1	A270740	White	Texture	None Detected
	Layer 2	A270740	White	Drywall	None Detected
8828-1112-14	Layer 1	A270741	White	Texture	None Detected
	Layer 2	A270741	Gray	Drywall	None Detected
8828-1112-15	Layer 1	A270742	White	Texture	None Detected
	Layer 2	A270742	White	Drywall	None Detected
8828-1112-16	Layer 1	A270743	White	Texture	None Detected
	Layer 2	A270743	White	Drywall	None Detected



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AMENDED

# Asbestos Report Summary

By: POLARIZING LIGHT MICROSCOPY

PROJECT: 9604, 8505 Nicodemus

LAB CODE: A1919170

METHOD: EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

Client ID	Layer	Lab ID	Color	Sample Description	ASBESTOS %
8828-1112-17	Layer 1	A270744	White	Texture	None Detected
	Layer 2	A270744	White	Drywall	None Detected
8828-1112-18	Layer 1	A270745	Off-white	Texture	Chrysotile 5%
	Layer 2	A270745	Gray	Drywall	None Detected
8828-1112-19	Layer 1	A270746	Off-white	Texture	Chrysotile 5%
	Layer 2	A270746	Gray	Drywall	None Detected
8828-1112-20	Layer 1	A270747	Off-white	Texture	Chrysotile 5%
	Layer 2	A270747	Gray	Drywall	None Detected
8828-1112-21		A270748	Gray	Plaster	None Detected
8828-1112-22		A270749	Brown	Plaster	None Detected



CEI

AMENDED

## ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** Emerald Environmental  
1621 Saint Clair Ave  
Kent, OH 44240

**Lab Code:** A1919170  
**Date Received:** 11-13-19  
**Date Analyzed:** 11-15-19  
**Date Reported:** 11-15-19

**Project:** 9604, 8505 Nicodemus

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID	Lab	Lab	NON-ASBESTOS COMPONENTS				ASBESTOS
Lab ID	Description	Attributes	Fibrous		Non-Fibrous		%
8828-1112-01 Layer 1 A270728	Plaster Skim Coat	Heterogeneous			65%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270728	Plaster Base Coat	Heterogeneous	3%	Cellulose	37%	Silicates	None Detected
		Gray			35%	Binder	
		Fibrous			25%	Perlite	
		Bound					
8828-1112-02 Layer 1 A270729	Plaster Skim Coat	Heterogeneous			65%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270729	Plaster Base Coat	Heterogeneous	3%	Cellulose	37%	Silicates	None Detected
		Gray			35%	Binder	
		Fibrous			25%	Perlite	
		Bound					
8828-1112-03 Layer 1 A270730	Plaster Skim Coat	Heterogeneous			65%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270730	Plaster Base Coat	Heterogeneous	3%	Cellulose	37%	Silicates	None Detected
		Gray			35%	Binder	
		Fibrous			25%	Perlite	
		Bound					
8828-1112-04 A270731	Plaster	Heterogeneous	10%	Cellulose	50%	Silicates	None Detected
		Gray			40%	Binder	
		Fibrous					
		Bound					

# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** Emerald Environmental  
1621 Saint Clair Ave  
Kent, OH 44240

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## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
8828-1112-05 A270732	Plaster	Heterogeneous	10%	Cellulose	50%	Silicates	None Detected
		Gray			40%	Binder	
		Fibrous					
		Bound					
8828-1112-06 A270733A	Plaster Skim Coat Layer 1	Heterogeneous	10%	Wollastonite	55%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270733A	Plaster Base Coat	Heterogeneous	3%	Cellulose	37%	Silicates	None Detected
		Gray			35%	Binder	
		Fibrous			25%	Perlite	
		Bound					
A270733B	Drywall	Homogeneous	15%	Cellulose	85%	Gypsum	None Detected
		Gray					
		Fibrous					
		Bound					
8828-1112-07 A270734A	Mastic	Heterogeneous			100%	Mastic	None Detected
		Brown					
		Non-fibrous					
		Bound					
Layer 1 A270734B	Plaster Skim Coat	Heterogeneous	10%	Wollastonite	55%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270734B	Plaster Base Coat	Heterogeneous	3%	Cellulose	37%	Silicates	None Detected
		Gray			35%	Binder	
		Fibrous			25%	Perlite	
		Bound					



# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

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## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
A270734C	Drywall	Homogeneous Gray Fibrous Bound	15%	Cellulose	85%	Gypsum	None Detected
8828-1112-08 Layer 1 A270735	Plaster Skim Coat	Heterogeneous White Non-fibrous Bound	10%	Wollastonite	55% 35% <1%	Binder Calc Carb Paint	None Detected
Layer 2 A270735	Plaster Base Coat	Heterogeneous Gray Fibrous Bound	3%	Cellulose	37% 35% 25%	Silicates Binder Perlite	None Detected
8828-1112-09 A270736	Plaster Base Coat	Heterogeneous Brown Fibrous Bound	3% 2%	Hair Cellulose	60% 35%	Silicates Binder	None Detected
8828-1112-10 A270737	Plaster Base Coat	Heterogeneous Brown Fibrous Bound	3% 2%	Hair Cellulose	60% 35%	Silicates Binder	None Detected
8828-1112-11 Layer 1 A270738	Joint Compound	Heterogeneous White Non-fibrous Bound			65% 35% <1%	Binder Calc Carb Paint	None Detected
Layer 2 A270738	Drywall	Homogeneous Gray Fibrous Bound	10% 5%	Cellulose Fiberglass	85%	Gypsum	None Detected

# ASBESTOS BULK ANALYSIS

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**Project:** 9604, 8505 Nicodemus

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
<b>8828-1112-12</b> Layer 1 A270739	Joint Compound	Heterogeneous			63%	Binder	<b>2% Chrysotile</b>
		Beige			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270739	Drywall	Homogeneous	15%	Cellulose	85%	Gypsum	None Detected
		White					
		Fibrous					
		Bound					
<b>8828-1112-13</b> Layer 1 A270740	Texture	Heterogeneous			65%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous					
		Bound					
Layer 2 A270740	Drywall	Homogeneous	20%	Cellulose	80%	Gypsum	None Detected
		White					
		Fibrous					
		Bound					
<b>8828-1112-14</b> Layer 1 A270741	Texture	Heterogeneous			65%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous					
		Bound					
Layer 2 A270741	Drywall	Homogeneous	15%	Cellulose	85%	Gypsum	None Detected
		Gray					
		Fibrous					
		Bound					
<b>8828-1112-15</b> Layer 1 A270742	Texture	Heterogeneous			65%	Binder	None Detected
		White			35%	Calc Carb	
		Non-fibrous					
		Bound					

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## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
Layer 2 A270742	Drywall	Homogeneous White Fibrous Bound	15%	Cellulose	85%	Gypsum	None Detected
8828-1112-16 Layer 1 A270743	Texture	Heterogeneous White Non-fibrous Bound			65% 35%	Binder Calc Carb	None Detected
Layer 2 A270743	Drywall	Homogeneous White Fibrous Bound	15%	Cellulose	85%	Gypsum	None Detected
8828-1112-17 Layer 1 A270744	Texture	Heterogeneous White Non-fibrous Bound			65% 35%	Binder Calc Carb	None Detected
Layer 2 A270744	Drywall	Homogeneous White Fibrous Bound	15%	Cellulose	85%	Gypsum	None Detected
8828-1112-18 Layer 1 A270745	Texture	Heterogeneous Off-white Non-fibrous Bound			60% 35% <1%	Binder Calc Carb Paint	5% Chrysotile
Layer 2 A270745	Drywall	Homogeneous Gray Fibrous Bound	15%	Cellulose	85%	Gypsum	None Detected

# ASBESTOS BULK ANALYSIS

By: POLARIZING LIGHT MICROSCOPY

**Client:** Emerald Environmental  
1621 Saint Clair Ave  
Kent, OH 44240

**Lab Code:** A1919170  
**Date Received:** 11-13-19  
**Date Analyzed:** 11-15-19  
**Date Reported:** 11-15-19

**Project:** 9604, 8505 Nicodemus

## ASBESTOS BULK PLM, EPA 600 METHOD

Client ID Lab ID	Lab Description	Lab Attributes	NON-ASBESTOS COMPONENTS				ASBESTOS %
			Fibrous		Non-Fibrous		
8828-1112-19 Layer 1 A270746	Texture	Heterogeneous			60%	Binder	5% Chrysotile
		Off-white			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270746	Drywall	Homogeneous	15%	Cellulose	85%	Gypsum	None Detected
		Gray					
		Fibrous					
		Bound					
8828-1112-20 Layer 1 A270747	Texture	Heterogeneous			60%	Binder	5% Chrysotile
		Off-white			35%	Calc Carb	
		Non-fibrous			<1%	Paint	
		Bound					
Layer 2 A270747	Drywall	Homogeneous	15%	Cellulose	85%	Gypsum	None Detected
		Gray					
		Fibrous					
		Bound					
8828-1112-21 A270748	Plaster	Heterogeneous	5%	Cellulose	55%	Silicates	None Detected
		Gray			40%	Binder	
		Fibrous			<1%	Paint	
		Bound					
8828-1112-22 A270749	Plaster	Heterogeneous	5%	Hair	60%	Silicates	None Detected
		Brown	2%	Cellulose	33%	Binder	
		Fibrous					
		Bound					

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**LEGEND:**      Non-Anth      = Non-Asbestiform Anthophyllite  
                      Non-Trem      = Non-Asbestiform Tremolite  
                      Calc Carb      = Calcium Carbonate

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**METHOD:** EPA 600 / R93 / 116 and EPA 600 / M4-82 / 020

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**REPORTING LIMIT:** <1% by visual estimation

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**REPORTING LIMIT FOR POINT COUNTS:** 0.25% by 400 Points or 0.1% by 1,000 Points

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**REGULATORY LIMIT:** >1% by weight


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Due to the limitations of the EPA 600 method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles can be difficult to analyze via polarized light microscopy (PLM). EPA recommends that all NOBs analyzed by PLM, and found not to contain asbestos, be further analyzed by Transmission Electron Microscopy (TEM). Please note that PLM analysis of dust and soil samples for asbestos is not covered under NVLAP accreditation. *Estimated measurement of uncertainty is available on request.*

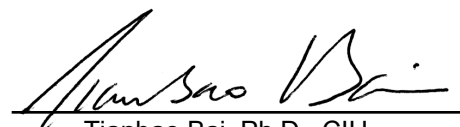
This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Samples were received in acceptable condition unless otherwise noted. This report may not be used by the client to claim product endorsement by NVLAP or any other agency of the U.S. Government.

Information provided by customer includes customer sample ID and sample description.

**ANALYST:**

  
 Elisabeth Thinh

**APPROVED BY:**

  
 Tianbao Bai, Ph.D., CIH  
 Laboratory Director



AMENDED due to Client Typographical Error -  
 Client wants to replace the word texture with joint  
 compound in a couple of samples

A1919178  
A270728  
A270749  
(22)



# ASB/Lead BULK SAMPLE LOG

LGN: \_\_\_\_\_

Company: Emerald Environmental Inc.  
Contact: B:11 Mello  
Address: 1621 St. Clair Ave  
City: Kent  
State: Ohio 44240  
Phone: (330) 677-0785  
Fax: (330) 677-1567

EMERALD PROJECT #: 9604

DATE: 11-12-19

8505 Nicodemus

Turnaround: Business Days  
☐ Same Day ☐ 3rd Day  
☐ 24 Hour ☐ 5th Day  
☒ 2nd Day

Email Results To: wmello

Asbestos ☒

@Emerald-Environmental.com

Lead ☐

Reporting Units: ☒ % volume (ASB) PLM ☐ mg/kg or ppm (Pb)

☐ % weight (Pb) ☐ mg/cm2 or ug/ft2 (Pb)

ANALYTICAL NOTES: Report PLM Visual and PLM Point Count analytical results on separate reports

SAMPLE NUMBER	MATERIAL DESCRIPTION	HA#	LOCATION
8828-1112-01	Plaster ceiling - 2 layer	PC1	living room SE corner
02			living room NE corner
03			Kitchen SE corner
04	Plaster ceiling - 1 layer	PC2	2nd floor SE
05			2nd floor Center N
06	Plaster walls on drywall	PW1+	living room NW
07			living room - SW
08			Kitchen SE
09	Plaster - brown	PW2	2nd floor - East
10			2nd floor - center North
11	Drywall wall system	DWW1	Bathroom - w center
12			South bedroom 1st flr - S center
13	Drywall ceiling with	DWC1+	South bedroom 1st flr - SE corner
14	rough texture	RT1	SW corner
15			2nd floor - SE corner
16			- SE room center
17			- North closet center
18	Drywall ceiling with	DWC1+	North bedroom 1st flr - NE
19	trawled texture	TRT1	NW
20			W center
21	Plaster ceiling - 1 layer	PC2	2nd floor - west

NOTES: \_\_\_\_\_

Relinquished by: [Signature] 11-12-19 1700 Date/Time  
Received by: CB 11/13 1010 Date/Time  
Relinquished by: \_\_\_\_\_ Date/Time  
Received by: EUROFINS CEI, INC Date/Time  
SAMPLES ACCEPTED  
[Signature]





**EMERALD**  
ENVIRONMENTAL, INC.

**LGN:**

Company: Emerald Environmental Inc.  
Contact: ~~Wendy~~ Bill Mello  
Address: 1621 St. Clair Ave  
City: Kent  
State: Ohio 44240  
Phone: (330) 677-0785  
Fax: (330) 677-1567

Email Results To: WME/VO

Asbestos 

Lead ☐


EMERALD PROJECT #: 9604

DATE: 11-12-19


### Turnaround: Business Days

☐ Same Day
 ☐ 3rd Day

☐ 24 Hour ☐ 5th Day

 2nd Day

@Emerald-Environmental.com

Reporting Units:  % volume (ASB) PLM

☐ mg/kg or ppm (Pb)


☐ % weight (Pb)

☐ mg/cm<sup>2</sup> or ug/ft<sup>2</sup> (Pb)

ANALYTICAL NOTES: Report PLM Visual and PLM Point Count analytical results on separate reports

[illegible]

NOTES:

Relinquished by: 

11-18-17  
1700  
Date/Time

Received by:

Relinquished by:

Date/Time

Received by:

Date/Time

Date/Time