

ASBESTOS SURVEY REPORT

LAK-MR 1986-1.688 (PID 116955)

Bridge Structure (SFN 4304179) of Little Mountain Road over I-90
Kirtland Hills, Lake County, Ohio 44060



Ohio Department of Transportation District 12
September 11, 2026

Prepared by
TRC Environmental Corporation, 1382 W. 9th Street, Suite 400,
Cleveland, Ohio 44113



OHIO DEPARTMENT OF
TRANSPORTATION

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1.0 INTRODUCTION

The Ohio Department of Transportation (ODOT) contracted with Davey Resource Group, Inc. (Davey) for general environmental services in District 12. Davey subcontracted with TRC Environmental Corporation (TRC) to conduct a pre-renovation level asbestos survey (Survey) of the bridge structure (Structure File Number (SFN) 4304179) where Little Mountain Road crosses over Interstate-90 (I-90) in Kirtland Hills, Lake County, Ohio 44060 (the “Site”), which is referred to as the LAK-MR 1986-1.688 (PID 116955) project. The Survey work is being conducted as part of a larger rehabilitation project associated with the LAK-90-6.99 Rehabilitation project. The Survey was conducted in accordance with TRC Environmental Service Agreement No. 42602. The purpose of the Survey was to identify asbestos-containing material (ACM) that may require abatement prior to replacing bearings and/or repairing spalls on the bridge.

Ryan Pulliam, TRC Ohio-licensed Certified Asbestos Hazard Evaluation Specialist (CAHES), (Certification Number ES35048), conducted the Survey on September 8, 2026. This report summarizes the Survey findings, the material conditions, and the condition of the bridge structure as observed on the stated date.

A copy of applicable State of Ohio asbestos certification for Ryan Pulliam is provided in **Appendix A**. A Site figure, which shows the asbestos sampling locations, is provided in **Appendix B**. Laboratory results are provided in **Appendix C**. The Notification of Demolition and Renovation form is provided in **Appendix D**. Site photographs are provided in **Appendix E**.

An ACM inventory, which provides the location, material description, TRC-assigned sample number, condition, estimated quantity, and specific notes (if warranted) for suspect materials identified at the bridge structure, are provided in **Table 1**.

2.0 SCOPE OF WORK

The scope of services for this Site survey consisted of the following tasks:

- Perform an asbestos survey to identify and quantify ACMs on the bridge structure. Suspect ACMs were sampled in accordance with Asbestos Hazard Emergency Response Act (AHERA) sampling requirements, outlined in Chapter 40 of the Code of Federal Regulations (CFR), Part 763.86. Samples collected were analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited laboratory for the presence of asbestos. Samples were analyzed using polarized light microscopy (PLM) by U.S. Environmental Protection Agency (EPA) Method 600/R-93/116.
- Prepare tables indicating sample locations, sample types, analytical results, and/or quantities of ACM.
- Prepare drawings indicating the approximate bridge structure configurations, sample locations, and locations of identified ACM.
- Prepare a summary report that documents the findings of the survey, detailing the items listed above including supporting documentation, such as the chain of custody and laboratory analytical results.

2.1 Limitations

Only areas accessible by foot from both ends of the bridge span and areas accessible by foot within the right of way (ROW) were inspected. There may be areas of the bridge structure which were not readily visible, accessible, and/or discovered during the Survey that may contain ACMs that are not identified within this report. These areas include, but are not limited to, areas only accessible from the interstate.

TRC recommends that if hidden suspect ACM is encountered during renovation activities, the material may be either: 1) assumed asbestos and abated accordingly or 2) sampled by certified personnel and analyzed by an accredited laboratory to determine the nature of the suspect material.

3.0 REVIEW OF PRIOR ASBESTOS SURVEY REPORTS

No prior asbestos survey reports were made available for review.

4.0 STRUCTURE SUMMARY

The existing LAK-MR 1986-1.688 bridge structure (SFN 4304179) is located where Little Mountain Road, crosses over I-90 in Kirtland Hills, Lake County, Ohio 44060. The bridge is comprised primarily of steel with reinforced concrete pier columns, a combined reinforced concrete deck and roadway with reinforced concrete abutments, concrete and metal guard rails, and metal chain-link fencing.

5.0 ASBESTOS INSPECTION, SAMPLING, AND ASSESSMENT PROCEDURES

5.1 Asbestos-Containing Materials Terminology

The U.S. Environmental Protection Agency (EPA) defines ACMs as follows:

1. Friable ACM is defined as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.
2. Non-friable ACM is any material containing more than one percent (1%) asbestos as determined using the PLM method that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. The EPA further defines two categories of non-friable ACM:
 - a. Category I (Cat I) - Category I non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using PLM, and
 - b. Category II (Cat II) - Category II non-friable ACM is any material, excluding Category I non-friable ACM, containing more than one percent (1%) asbestos as determined using

PLM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

3. Regulated Asbestos-Containing Material (RACM) is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

5.2 General Inspection and Sampling Procedures

The inspection was performed following the protocol outlined in the EPA AHERA found in EPA 40 CFR 763. Although the AHERA regulations were originally intended for public and private school buildings housing kindergarten through 12th-grade classes, they have become the accepted industry standard for conducting asbestos investigations in all types of buildings and structures. Occupational Safety and Health Administration (OSHA) regulations also reference AHERA as the required method of conducting asbestos inspections in all public and commercial buildings.

Accessible areas of the bridge structure were visually inspected for suspect ACM. The TRC inspector first grouped suspect materials into homogeneous areas for sampling purposes; homogeneous areas consist of materials with like appearance, color, texture, and application date. A physical assessment was also conducted to determine the current condition and degree of friability. The inspection encompassed both friable and non-friable materials. The inspector then assumed that specific materials remained homogeneous (based upon the material's appearance and application) throughout the areas. In situations where materials appeared to alternate between potentially asbestos-containing and non-asbestos-containing, the inspector looked for visible differences in the materials. If differences were not apparent, professional judgment was incorporated which resulted in the assumption that all materials were asbestos-containing.

5.3 Bulk Sample Collection Methods

To avoid disturbing suspect materials more than necessary and to minimize the potential release of asbestos fibers, bulk sampling was conducted in accordance with the sampling protocol identified in 40 CFR 763. Each sample collected was pre-wetted and obtained using appropriate hand tools. Samples were placed into clean sample bags which were sealed and labeled with a unique sample identification number. Care was taken to obtain a sample that was representative of all layers of the sampled material. The sampling tools were then thoroughly cleaned before collecting the next sample to avoid cross-contamination. Pertinent information, such as the date of inspection, name of the inspector, room/area description, location of the sample, type of material collected, and quantity of material present was recorded in a field sample log. Insulation materials that were determined by the inspector to be exclusively fiberglass or rubber were not sampled.

5.4 Analysis of Bulk Samples

A total of nine (9) bulk samples of suspect ACM were collected and submitted to and analyzed by TRC Industrial Hygiene Laboratory (TRC Lab) located in Windsor, Connecticut. The TRC Lab is accredited through the American Industrial Hygiene Association (AIHA), and the (NVLAP) for PLM analysis (NVLAP #101424-0).

The TRC Lab analyzed the bulk samples using PLM, which is used for qualitative identification of six different types of asbestos fibers: Chrysotile, Amosite, Crocidolite, Anthophyllite, Tremolite, and Actinolite. The method requires the laboratory to take a portion of the sample and treat it with oil having a specific refractive index. This prepared slide is then subjected to microscopic testing necessary to identify the asbestos type, as each type displays unique characteristics when subjected to these tests. Quantification of asbestos listed on the laboratory reports was determined by observing the material through a stereoscope and assigning a visual estimate.

5.5 Reporting of Analysis Results

The PLM method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percent) within the range of 0 to 100. Minute quantities of asbestos in bulk samples may be reported as “trace” or less than one percent. The composition of the bulk sample is reported in percentages of asbestos and non-asbestos components.

5.6 Asbestos Assessment Findings

No samples collected contained detectable levels of asbestos, based on the PLM method.

The materials that were sampled are identified in **Table 1** below. Laboratory reports and chain of custody records are presented in **Appendix C**.

Table 1 – Summary of Materials Sampled for Asbestos

Bridge Structure (SFN 4304144) – LAK-MR 1986-1.688							
Sample Number	Material	Sample Location(s)	Percentage / Type of Asbestos	Approx. Quantity	Condition	Type	NESHAP Category
MR1986-1	Black caulking	Southeast corner of bridge sidewall fencing	ND	480 LF	Good	Misc.	NA
MR1986-2		East central bridge sidewall fencing	ND				
MR1986-3		Northwest of bridge sidewall fencing	ND				

Bridge Structure (SFN 4304144) – LAK-MR 1986-1.688							
Sample Number	Material	Sample Location(s)	Percentage / Type of Asbestos	Approx. Quantity	Condition	Type	NESHAP Category
MR1986-4	Tan/grey concrete spacer material	Southeast of bridge concrete sidewall	ND	200 SF	Good	Misc.	NA
MR1986-5		East central bridge concrete sidewall	ND				
MR1986-6		West central bridge concrete sidewall	ND				
MR1986-7	Dark grey caulking on fence posts	Southwest of bridge fence post joint	ND	160 LF	Good	Misc.	NA
MR1986-8		Southwest of bridge fence post joint	ND				
MR1986-9		Southeast of bridge fence post joint	ND				

Notes:

LF – Linear Feet

SF – Square Feet

Misc. – Miscellaneous

NA – Not Applicable

ND – None Detected to < 1% ACM

6.0 CONCLUSIONS AND RECOMMENDATIONS

Results of laboratory analysis indicated that asbestos was not detected in any of the other samples analyzed, based on the PLM method.

Prior to renovation activities, it is recommended that the *Notification of Demolition and Renovation /Abatement* form be submitted to Ohio EPA, which has been started and is included in **Appendix D**.

7.0 DISCLAIMER

The content presented in this survey report is based on data collected during the Survey and information obtained through the review of pertinent regulations, requirements, guidelines, and commonly followed industry standards, and information provided (if any) by the Client, property owner, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties. Structures or components thereof surveyed may contain hidden surfaces or materials requiring destructive access to survey and/or sample. It is possible that additional materials could be discovered during destructive, demolition/renovation, and/or excavation

activities. In the event additional materials (not identified herein) are discovered during such activities, an additional survey and sampling may be necessary.

This survey report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos abatement contractor in locating ACM. This report is not intended for and may not be utilized as a bidding document or as an abatement project specification document.

8.0 CERTIFICATION

TRC hereby certifies that the services conducted and described in this document and the findings resulting from those services reported herein have been provided in a manner consistent with the current standards of the profession, and to the best of our knowledge, comply with applicable federal, state, and local statutes, regulations, and ordinances. If there are any questions concerning information contained in this report, please contact the undersigned at (216) 344-3072.

Sincerely,

TRC Environmental Corporation

Report Prepared By:

Reviewed by:



Ryan Pulliam
Asbestos Inspector (ES35048)



Keaton A. Henry, C.P., P.G.
Project Manager (ES36367)

APPENDIX A

CONSULTANT CERTIFICATIONS



**Environmental
Protection
Agency**

EPA.Ohio.gov

Mike DeWine, Governor Jim Tressel, Lt. Governor John Logue, Director

4/21/2026

Ryan Pulliam
TRC
1382 W. 9th St., Suite 400
Cleveland, OH 44113

RE: Evaluation Specialist
 Certification Number: ES35048
 Expiration Date: 4/21/2027

Dear Ryan Pulliam:

This letter and enclosed certification card approves your request to be certified as an asbestos Evaluation Specialist. You must present your card upon request at any project site while performing duties. Copies of cards are not acceptable as proof of certification.

This certification may be revoked by the Director of the Ohio Environmental Protection Agency (EPA) for violation of any of the requirements of 3745-22 or 3745-20 of the Ohio Administrative Code.

If you have any questions, please contact the Asbestos Program at 614-644-0226 or by email at asbestoslicensing@epa.ohio.gov.

Sincerely,

Brandon M. Schwendeman

Brandon Schwendeman
Manager, Business Operations Support Section
Ohio EPA - Division of Air Pollution Control

State of Ohio
Environmental Protection Agency
Asbestos Program

Asbestos Hazard Evaluation Specialist

Ryan Pulliam

TRC
1382 W. 9th St., Suite 400
Cleveland OH 44113


Ohio Environmental
Protection Agency


DOB: 6/12/85
Card not Valid
if Altered

Certification Number Expiration Date
ES35048 **4/21/27**

APPENDIX B

SITE FIGURE

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 9/10/2026 11:11:18 AM; File Path: T:\H-PROJECTS\Ohio DOT\682849_LAK-Bridges\2-APRX\Sampling.aprx; Layout Name: Fig01 - Sampling 1986

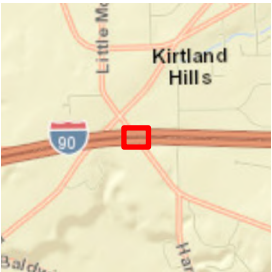


ASBESTOSSAMPLELOCATION



1:600
1" = 50'

0 50 100 FEET



PROJECT: LAK-MR 1986-1.688 (SFN 4304179)
LITTLE MOUNTAIN ROAD OVER I-90 IN KIRTLAND HILLS
LAKE COUNTY, OH

TITLE: ASBESTOS SAMPLE LOCATION MAP

DRAWN BY: M. OPEL PROJ. NO.: 682849

CHECKED BY: R. PULLIAM

APPROVED BY: R. PULLIAM

DATE: SEPTEMBER 2026

FIGURE 1



1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Sampling.aprx

APPENDIX C

LABORATORY REPORTS, CHAIN-OF-CUSTODY FORMS



BULK ASBESTOS ANALYSIS REPORT

CLIENT: Ohio Department of Transportation

Lab Log #: 0070460

Project #: 682849.0008.0001

Date Received: 09/09/2026

Date Analyzed: 09/10/2026

Site: LAK-90-6.99 (Bridge LAK-MR 1986-1.688)

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
MR 1986-1	East side fence	Black fence post caulking	- - -	ND	None
MR 1986-2	East side fence	Black fence post caulking	- - -	ND	None
MR 1986-3	West side fence	Black fence post caulking	- - -	ND	None
MR 1986-4	East side concrete	Tan/Grey concrete spacing material	- - -	ND	None
MR 1986-5	East side concrete	Tan/Grey concrete spacing material	- - -	ND	None
MR 1986-6	West side concrete	Tan/Grey concrete spacing material	- - -	ND	None
MR 1986-7	Southwest corner fence	Dark Grey fence joint caulking	- - -	ND	None
MR 1986-8	Southeast corner fence	Dark Grey fence joint caulking	- - -	ND	None
MR 1986-9	Southeast corner fence	Dark Grey fence joint caulking	- - -	ND	None

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #PLM00007 TX #300354
CO# AL-21772

AIHA LAP #100122
VT #An-000020
LA#05011

CT #PH-0426
VA #3333 000283
PA#68-03387

ME LB-0071
AZ #AZ0944
PHIL#ALL-461

MA #AA000052
HI #L-09-004

NY #10980 WV #000622
NV #CT00004 CA #2907
WA #C1071



POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
------------	-----------------	----------------------------------	------------------------	------------	---------------

ND - asbestos was not detected

Trace - asbestos was observed at level of 1% or less - This is the reporting limit

NA/PS - Not Analyzed / Positive Stop

SNA - Sample Not Analyzed- See Chain of Custody for details

Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows 18/01A EPA -- 40 CFR Appendix E to subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples and 18/A03 EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 101424-01. TRC is accredited by the AIHA Laboratory Accreditation Programs AIHA LAP (ID: LAP-100122) in the Industrial Hygiene Program (IHLAP) for PLM. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, as received by the laboratory.

Analyzed by:

Kathleen Williamson, Laboratory Manager

Reviewed by

Najaat Bhura, Approved Signatory

Date Issued

09/10/2026

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #PLM00007 TX #300354
CO# AL-21772

AIHA LAP #100122
VT #An-000020
LA#05011

CT #PH-0426
VA #3333 000283
PA#68-03387

ME LB-0071
AZ #AZ0944
PHIL#ALL-461

MA #AA000052
HI #L-09-004

NY #10980 WV #000622
NV #CT00004 CA #2907
WA #C1071

TRC ENVIRONMENTAL CORPORATION
1382 W. 9th St., Suite 400
Cleveland, OH 44113
PHONE: (216) 344-3072
E-MAIL: rpulliam@trccompanies.com



ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

TRC ENVIRONMENTAL LABORATORY
21 GRIFFIN ROAD NORTH
WINDSOR, CT 06095
PHONE: (860) 298-9692

LAB ID #: 70460

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME					
682849.0000 Phase 8 Task 1		LAK-90-6.99 (Bridge LAK-MR 1986-1.688)				PLM:	8hr	☒	24hr	48hr	3day
SIGNATURE		INSPECTOR				TEM:	24hr		48hr	3day	5day
		Ryan Pulliam (ES35048)				MATERIAL					
FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION						
			COMP	GRAB							
MA1986-1	9/8/26	NA		X	East side fence	X		X			Black Caulking on fence posts
MA1986-2					↓						
MA1986-3					West side fence						↓
MA1986-4					East side concrete						Ten/grey concrete spacing material
MA1986-5					↓						↓
MA1986-6					West side concrete						↓
MA1986-7					Southwest corner fence						Dark grey fence joint caulking
MA1986-8					↓						↓
MA1986-9					South east corner fence						↓

Relinquished by: (Signature) 	Date: 9/8/26	Received by: (Signature) 	9/9/26	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Ryan Pulliam	Time: 1430	(Printed) 1150		(Printed)	Time:	(Printed)
Remarks: Samples taken in OH				Condition of Samples: Acceptable: Yes ☒ No ☐ Comments:		Page <u>1</u> of <u>1</u>

APPENDIX D

NOTIFICATION OF DEMOLITION AND

RENOVATIONS/ABATEMENT FORM



Notification of Demolition and Renovation/Abatement

Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, **including payment**, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at epa.ohio.gov/asbestos. This form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? asbestos@epa.ohio.gov or (614) 466-0061.

Ohio EPA Use Only	Notification #:	Postmarked: / /	Received: / /	☐ Hand-Delivered
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1) Notification Information (Check all that apply)

☒ Original	☐ Revision # (count):	☐ Installation	☐ Emergency	☐ Annual	☐ Cancellation	Project County: Lake
☐ NESHAP Residential Exemption						

2) Owner, Asbestos Abatement Contractor, Billing and Fire Department Information

Revised? ☐

Owner		
Name: Ohio Department of Transportation - District 12		Is this a company? ☐ Yes ☒ No
Address: 5500 Transportation Boulevard		Contact Person: Tom Sorge
City: Garfield Heights	State: OH	Zip: 44125
Email:	Phone: 216.584.2086	Fax:
Asbestos Abatement Contractor (if applicable)		
Name:	License #:	Expiration Date: / /
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Billing Contact (Entity paying for original notification)		
Is this contact associated with the ☒ Owner, ☐ Asbestos Abatement Contractor, or ☐ Demolition Contractor (if not installation)?		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Fire Department (if applicable)		
Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

3) Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure

Revised? ☐

Evaluation Specialist: Jonathan Blackert	Certification #: ES35048	Expiration Date: 04 / 21 /2027
Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II non-friable asbestos-containing material: ☒ PLM ☐ Point Count ☐ TEM ☐ Other Method (Explain Below):		

4) Procedures to be followed should unexpected RACM be discovered (check all that apply)

Revised? ☐

☒ Stop work and keep wet	☐ Evacuate area	☒ Demarcate area	☒ Contact licensed abatement contractor
☐ Contact district office/local air authority			
☐ Other (Explain):			

5) Planned Demolition (check all that apply)

Revised? ☐

Describe demolition work to be performed and method(s) to be employed, including demolition techniques to be used: ☐ Implosion ☐ Fire Training ☐ Wet Methods ☐ Manual Demolition ☐ Mechanical Demolition ☐ Other (Explain):	
Description of affected facility components (include attachment if necessary):	

Mail completed form and payment to:
Ohio EPA, DAPC – Asbestos
P.O. Box 1049, Columbus, OH 43216-1049

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Continued

6) Asbestos Description and Engineering Controls (if asbestos is being abated)

Revised? ☐

For the material listed in each project, describe the type(s) of ACM to be abated, engineering controls and work practices to be used to minimize emissions and ensure proper waste handling:

Type of ACM to be abated:	☐ Surfacing	☐ Mechanical	☐ Other		
Engineering Controls:	☐ Wet Methods	☐ Glove Bag	☐ NPE	☐ AFD	☐ Other:
Work Practices:	☐ Intact Removal	☐ Manual	☐ Mechanical	☐ Other:	

7) Asbestos Waste Transporter (if applicable)

Revised? ☐

Transporter #1 Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Transporter #2 Name (if applicable):		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

8) Asbestos Waste Disposal Site (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

9) Emergency Demolition (complete if you checked "Emergency" above and "Demolition" for any project)

Revised? ☐

A copy of the issued order, including the following information, **must be attached** to this notification.

Government Official Issuing Order:	Title:
Agency:	Authority of Order (Citation of Code):
Date of Order: / /	Demolition Date: / /

10) Emergency Renovation/Abatement (complete if you checked "Emergency" above and "Renovation/Abatement" for any project)

Revised? ☐

Date of Emergency: / /	Time of Emergency: : ☐ a.m. ☐ p.m.
Description of Sudden, Unexpected Event:	
Explanation of how the event caused unsafe conditions or equipment damage:	

11) Attestation

Revised? ☐

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification. I acknowledge that the submission of false or misleading statements is prohibited by law and I certify that facts contained in this notification are true, accurate, and complete.

Signature:	Date: / /
Name:	Title:
Organization:	



Notification of Demolition and Renovation/Abatement

Section 2: Project Address Specific Information

Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only Project ID #:

A. Facility Description

Revised? ☐

Building Name (if applicable): LAK-MR 1986-1.688 (SFN 4304179)		Site Location (specific): 41.647918, -81.324481	
Address: Along Little Mountain Road crossing over I-90			
City: Kirtland Hills		State: OH	Zip: 44060
Building Size (square feet):		No. of Floors:	Age: 64 years
Present Use: Bridge		Prior Use:	

B. Type of Operation (check all that apply)

Revised? ☐

☐ Demolition	☒ Renovation/Abatement – Type: ☐ Removal ☒ Repair ☐ Encapsulation ☐ Enclosure
-------------------------------------	--

C. Asbestos Present (check one)

Revised? ☐

☐ Yes	☒ No	☐ No, previously abated	Year Abated:
------------------------------	--	--	--------------

D. Approximate Amount of Asbestos-Containing Materials (complete table below and Section 1 #6 if asbestos is present)

Revised? ☐

	Material to be Removed			Material NOT to be Removed	
	RACM	Non-friable Asbestos-Containing Material		Non-friable Asbestos-Containing Material	
		Category I	Category II	Category I	Category II
Pipes (linear feet)					
Surface area on other facility components (ft²)					
Volume if length or area cannot be measured (ft³)					

E. Asbestos Abatement Schedule and Abatement Specialist (original notification is required 10 working days prior to the start of work)

Revised? ☐

Setup Date: / /		Abatement Date: / /		Complete Date: / /			
(Shift 1) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	
(Shift 2) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	

F. Demolition Contractor (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

G. Demolition Schedule (original notification is required 10 working days prior to the start of work)

Revised? ☐

Start Date: / /	Complete Date: / /
-----------------	--------------------

H. Project Hold

Revised? ☐

Asbestos Abatement Offsite/On Hold as of Date: / /	Asbestos Abatement On Site/Off Hold, Work Resume Date: / /
Demolition Offsite/On Hold as of Date: / /	Demolition On Site/Off Hold, Work Resume Date: / /

APPENDIX E
PHOTOGRAPHIC LOG

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1986-1.688 (PID 116955) Bridge Structure (SFN 4304179) Little Mountain Road over I-90	Project No.: 682849.0008.0001
Photo No. 1	Date September 8, 2026		
Description: View of LAK-MR 1986-1.688, facing northwest.			

Photo No. 2	Date September 8, 2026	
Description: View of LAK-MR 1986-1.688, facing southeast.		

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1986-1.688 (PID 116955) Bridge Structure (SFN 4304179) Little Mountain Road over I-90	Project No.: 682849.0008.0001
Photo No. 3	Date September 8, 2026		
Description: Underneath view of LAK-MR 1986-1.688, facing north.			

Photo No.	Date	
4	September 8, 2026	
Description: View of black caulking on fence post along bridge sidewalls (MR1986-1, MR1986-2, and MR1986-3), facing southwest.		

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1986-1.688 (PID 116955) Bridge Structure (SFN 4304179) Little Mountain Road over I-90	Project No.: 682849.0008.0001
Photo No. 5	Date September 8, 2026		
Description: View of tan/grey concrete spacing material located on sidewall barriers (MR1986-4, MR1986-5, and MR1986-6), facing west.			

Photo No. 6	Date September 8, 2026	
Description: View of dark grey caulking on fence post joints (MR1986-7, MR1986-8, and MR1986-9), facing north.		

ASBESTOS SURVEY REPORT

LAK-MR 1972-0.879 (PID 116955)

Bridge Structure (SFN 4303962) of Kirtland Road over I-90
Willoughby, Lake County, Ohio 44094



Ohio Department of Transportation District 12
September 11, 2026

Prepared by
TRC Environmental Corporation, 1382 W. 9th Street, Suite 400,
Cleveland, Ohio 44113



OHIO DEPARTMENT OF
TRANSPORTATION

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- A. TRC Consultant Certification(s)
- B. Asbestos Sample Location Map
- C. Laboratory Reports, Chain-of-Custody Forms
- D. Notification of Demolition and Renovations/Abatement Form
- E. Photograph Log

1.0 INTRODUCTION

The Ohio Department of Transportation (ODOT) contracted with Davey Resource Group, Inc. (Davey) for general environmental services in District 12. Davey subcontracted with TRC Environmental Corporation (TRC) to conduct a pre-renovation level asbestos survey (Survey) of the bridge structure (Structure File Number (SFN) 4303962) where Kirtland Road crosses over Interstate-90 (I-90) in Willoughby, Lake County, Ohio 44094 (the “Site”), which is referred to as the LAK-MR 1972-0.879 (PID 116955) project. The Survey work is being conducted as part of a larger rehabilitation project associated with the LAK-90-6.99 Rehabilitation project. The Survey was conducted in accordance with TRC Environmental Service Agreement No. 42602. The purpose of the Survey was to identify asbestos-containing material (ACM) that may require abatement prior to replacing bearings and/or repairing spalls on the bridge.

Ryan Pulliam, TRC Ohio-licensed Certified Asbestos Hazard Evaluation Specialist (CAHES), (Certification Number ES35048), , conducted the Survey on September 8, 2026. This report summarizes the Survey findings, the material conditions, and the condition of the bridge structure as observed on the stated date.

A copy of applicable State of Ohio asbestos certification for Ryan Pulliam is provided in **Appendix A**. A Site figure, which shows the asbestos sampling locations, is provided in **Appendix B**. Laboratory results are provided in **Appendix C**. The Notification of Demolition and Renovation form is provided in **Appendix D**. Site photographs are provided in **Appendix E**.

An ACM inventory, which provides the location, material description, TRC-assigned sample number, condition, estimated quantity, and specific notes (if warranted) for suspect materials identified at the bridge structure, are provided in **Table 1**.

2.0 SCOPE OF WORK

The scope of services for this Site survey consisted of the following tasks:

- Perform an asbestos survey to identify and quantify ACMs on the bridge structure. Suspect ACMs were sampled in accordance with Asbestos Hazard Emergency Response Act (AHERA) sampling requirements, outlined in Chapter 40 of the Code of Federal Regulations (CFR), Part 763.86. Samples collected were analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited laboratory for the presence of asbestos. Samples were analyzed using polarized light microscopy (PLM) by U.S. Environmental Protection Agency (EPA) Method 600/R-93/116.
- Prepare tables indicating sample locations, sample types, analytical results, and/or quantities of ACM.
- Prepare drawings indicating the approximate bridge structure configurations, sample locations, and locations of identified ACM.
- Prepare a summary report that documents the findings of the survey, detailing the items listed above including supporting documentation, such as the chain of custody and laboratory analytical results.

2.1 Limitations

Only areas accessible by foot from both ends of the bridge span on top of the bridge and areas accessible by foot within the right of way (ROW) were inspected. There may be areas of the bridge structure which were not readily visible, accessible, and/or discovered during the Survey that may contain ACMs that are not identified within this report. These areas include, but are not limited to, areas only accessible from the interstate.

TRC recommends that if hidden suspect ACM is encountered during renovation activities, the material may be either: 1) assumed asbestos and abated accordingly or 2) sampled by certified personnel and analyzed by an accredited laboratory to determine the nature of the suspect material.

3.0 REVIEW OF PRIOR ASBESTOS SURVEY REPORTS

No prior asbestos survey reports were made available for review.

4.0 STRUCTURE SUMMARY

The existing LAK-MR 1972-0.879 bridge structure (SFN 4303962) is located where Kirtland Road, crosses over I-90 in Willoughby, Lake County, Ohio 44094. The bridge is comprised primarily of steel with reinforced concrete pier columns, a combined reinforced concrete deck and roadway with reinforced concrete abutments, concrete and metal guard rails, and metal chain-link fencing.

5.0 ASBESTOS INSPECTION, SAMPLING, AND ASSESSMENT PROCEDURES

5.1 Asbestos-Containing Materials Terminology

The U.S. Environmental Protection Agency (EPA) defines ACMs as follows:

1. Friable ACM is defined as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.
2. Non-friable ACM is any material containing more than one percent (1%) asbestos as determined using the PLM method that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. The EPA further defines two categories of non-friable ACM:
 - a. Category I (Cat I) - Category I non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using PLM, and

- b. Category II (Cat II) - Category II non-friable ACM is any material, excluding Category I non-friable ACM, containing more than one percent (1%) asbestos as determined using PLM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
3. Regulated Asbestos-Containing Material (RACM) is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

5.2 General Inspection and Sampling Procedures

The inspection was performed following the protocol outlined in the EPA AHERA found in EPA 40 CFR 763. Although the AHERA regulations were originally intended for public and private school buildings housing kindergarten through 12th-grade classes, they have become the accepted industry standard for conducting asbestos investigations in all types of buildings and structures. Occupational Safety and Health Administration (OSHA) regulations also reference AHERA as the required method of conducting asbestos inspections in all public and commercial buildings.

Accessible areas of the bridge structure were visually inspected for suspect ACM. The TRC inspector first grouped suspect materials into homogeneous areas for sampling purposes; homogeneous areas consist of materials with like appearance, color, texture, and application date. A physical assessment was also conducted to determine the current condition and degree of friability. The inspection encompassed both friable and non-friable materials. The inspector then assumed that specific materials remained homogeneous (based upon the material's appearance and application) throughout the areas. In situations where materials appeared to alternate between potentially asbestos-containing and non-asbestos-containing, the inspector looked for visible differences in the materials. If differences were not apparent, professional judgment was incorporated which resulted in the assumption that all materials were asbestos-containing.

5.3 Bulk Sample Collection Methods

To avoid disturbing suspect materials more than necessary and to minimize the potential release of asbestos fibers, bulk sampling was conducted in accordance with the sampling protocol identified in 40 CFR 763. Each sample collected was pre-wetted and obtained using appropriate hand tools. Samples were placed into clean sample bags which were sealed and labeled with a unique sample identification number. Care was taken to obtain a sample that was representative of all layers of the sampled material. The sampling tools were then thoroughly cleaned before collecting the next sample to avoid cross-contamination. Pertinent information, such as the date of inspection, name of the inspector, room/area description, location of the sample, type of material collected, and quantity of material present was recorded in a field sample log. Insulation materials that were determined by the inspector to be exclusively fiberglass or rubber were not sampled.

5.4 Analysis of Bulk Samples

A total of six (6) bulk samples of suspect ACM were collected and submitted to and analyzed by TRC Industrial Hygiene Laboratory (TRC Lab) located in Windsor, Connecticut. The TRC Lab is accredited through the American Industrial Hygiene Association (AIHA), and the (NVLAP) for PLM analysis (NVLAP #101424-0).

The TRC Lab analyzed the bulk samples using PLM, which is used for qualitative identification of six different types of asbestos fibers: Chrysotile, Amosite, Crocidolite, Anthophyllite, Tremolite, and Actinolite. The method requires the laboratory to take a portion of the sample and treat it with oil having a specific refractive index. This prepared slide is then subjected to microscopic testing necessary to identify the asbestos type, as each type displays unique characteristics when subjected to these tests. Quantification of asbestos listed on the laboratory reports was determined by observing the material through a stereoscope and assigning a visual estimate.

5.5 Reporting of Analysis Results

The PLM method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percent) within the range of 0 to 100. Minute quantities of asbestos in bulk samples may be reported as “trace” or less than one percent. The composition of the bulk sample is reported in percentages of asbestos and non-asbestos components.

5.6 Asbestos Assessment Findings

No samples collected contained detectable levels of asbestos, based on the PLM method.

The materials that were sampled are identified in **Table 1** below. Laboratory reports and chain of custody records are presented in **Appendix C**.

Table 1 – Summary of Materials Sampled for Asbestos

Bridge Structure (SFN 4303962) – LAK-MR 1972-0.879							
Sample Number	Material	Sample Location(s)	Percentage / Type of Asbestos	Approx. Quantity	Condition	Type	NESHAP Category
MR1972-1	Black Caulking	Southwest of bridge sidewall fencing	ND	176 LF	Good	Misc.	NA
MR1972-2		West central bridge sidewall fencing	ND				
MR1972-3		Northeast of bridge sidewall fencing	ND				

Bridge Structure (SFN 4303962) – LAK-MR 1972-0.879							
Sample Number	Material	Sample Location(s)	Percentage / Type of Asbestos	Approx. Quantity	Condition	Type	NESHAP Category
MR1972-4	Tan/grey concrete spacer material	West central bridge concrete sidewall	ND	88 SF	Good	Misc.	NA
MR1972-5		Northwest of bridge concrete sidewall	ND				
MR1972-6		East central bridge concrete sidewall	ND				

Notes:

LF – Linear Feet

SF – Square Feet

Misc. – Miscellaneous

NA – Not Applicable

ND – None Detected to < 1% ACM

6.0 CONCLUSIONS AND RECOMMENDATIONS

Results of laboratory analysis indicated that asbestos was not detected in any of the samples

Prior to actual renovation activities, it is recommended that the ***Notification of Demolition and Renovation /Abatement*** form be submitted to Ohio EPA, which has been started and is included in **Appendix D**.

7.0 DISCLAIMER

The content presented in this survey report is based on data collected during the Survey and information obtained through the review of pertinent regulations, requirements, guidelines, and commonly followed industry standards, and information provided (if any) by the Client, property owner, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties. Structures or components thereof surveyed may contain hidden surfaces or materials requiring destructive access to survey and/or sample. It is possible that additional materials could be discovered during destructive, demolition/renovation, and/or excavation activities. In the event additional materials (not identified herein) are discovered during such activities, an additional survey and sampling may be necessary.

This supplemental environmentally regulated materials survey report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos abatement contractor in locating ACM.

This report is not intended for and may not be utilized as a bidding document or as an abatement project specification document.

8.0 CERTIFICATION

TRC hereby certifies that the services conducted and described in this document and the findings resulting from those services reported herein have been provided in a manner consistent with the current standards of the profession, and to the best of our knowledge, comply with applicable federal, state, and local statutes, regulations, and ordinances. If there are any questions concerning information contained in this report, please contact the undersigned at (216) 344-3072.

Sincerely,

TRC Environmental Corporation

Report Prepared By:

Reviewed by:



Ryan Pulliam
Asbestos Inspector (ES35048)



Keaton A. Henry, C.P., P.G.
Project Manager (ES36367)

APPENDIX A

CONSULTANT CERTIFICATIONS



**Environmental
Protection
Agency**

EPA.Ohio.gov

Mike DeWine, Governor Jim Tressel, Lt. Governor John Logue, Director

4/21/2026

Ryan Pulliam
TRC
1382 W. 9th St., Suite 400
Cleveland, OH 44113

RE: Evaluation Specialist
 Certification Number: ES35048
 Expiration Date: 4/21/2027

Dear Ryan Pulliam:

This letter and enclosed certification card approves your request to be certified as an asbestos Evaluation Specialist. You must present your card upon request at any project site while performing duties. Copies of cards are not acceptable as proof of certification.

This certification may be revoked by the Director of the Ohio Environmental Protection Agency (EPA) for violation of any of the requirements of 3745-22 or 3745-20 of the Ohio Administrative Code.

If you have any questions, please contact the Asbestos Program at 614-644-0226 or by email at asbestoslicensing@epa.ohio.gov.

Sincerely,

Brandon M. Schwendeman

Brandon Schwendeman
Manager, Business Operations Support Section
Ohio EPA - Division of Air Pollution Control



APPENDIX B

SITE FIGURE

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 9/12/2026, 11:11:18 AM; File Path: T:\H-PROJECTS\Ohio_DOT\682849_LAK-Bridges\APRX\Sampling.aprx; Layout Name: Fig01 - Sampling 1972



● ASBESTOSSAMPLELOCATION



1:600
1" = 50'



PROJECT: LAK-MR 1972-0.879 (SFN 4303962) KIRTLAND ROAD OVER I-90 IN WILLOUGHBY LAKE COUNTY, OH		
TITLE: ASBESTOS SAMPLE LOCATION MAP		
DRAWN BY: M. OPEL	PROJ. NO.: 682849	
CHECKED BY: R. PULLIAM	FIGURE 1	
APPROVED BY: R. PULLIAM		
DATE: SEPTEMBER 2026		
		1382 WEST NINTH STREET SUITE 400 CLEVELAND, OH 44113 PHONE: 216-344-3072
FILE:	Sampling.aprx	

APPENDIX C

LABORATORY REPORTS, CHAIN-OF-CUSTODY FORMS



BULK ASBESTOS ANALYSIS REPORT

CLIENT: Ohio Department of Transportation

Lab Log #: 0070458

Project #: 682849.0008.0001

Date Received: 09/09/2026

Date Analyzed: 09/10/2026

Site: LAK-90-6.99 (Bridge LAK-MR 1972-0.879)

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
MR 1972-1	West side Fence	Black fence post caulking	- - -	ND	None
MR 1972-2	West side Fence	Black fence post caulking	- - -	ND	None
MR 1972-3	East side fence	Black fence post caulking	- - -	ND	None
MR 1972-4	West side concrete	Tan/Grey concrete barrier spacing material	- - -	ND	None
MR 1972-5	West side concrete	Tan/Grey concrete barrier spacing material	- - -	ND	None
MR 1972-6	East side concrete	Tan/Grey concrete barrier spacing material	- - -	ND	None

ND - asbestos was not detected

Trace - asbestos was observed at level of 1% or less - This is the reporting limit

NA/PS - Not Analyzed / Positive Stop

SNA - Sample Not Analyzed- See Chain of Custody for details

Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows 18/01A EPA -- 40 CFR Appendix E to subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples and 18/A03 EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 101424-01. TRC is accredited by the AIHA Laboratory Accreditation Programs AIHA LAP (ID: LAP-100122) in the Industrial Hygiene Program (IHLAP) for PLM. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, as received by the laboratory.

Analyzed by:

Kathleen Williamson, Laboratory Manager

Reviewed by

Najaat Bhura, Approved Signatory

Date Issued

09/10/2026

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #PLM00007 TX #300354
CO# AL-21772

AIHA LAP #100122
VT #An-000020
LA#05011

CT #PH-0426
VA #3333 000283
PA#68-03387

ME LB-0071
AZ #AZ0944
PHIL#ALL-461

MA #AA000052
HI #L-09-004

NY #10980 WV #000622
NV #CT00004 CA #2907
WA #C1071

TRC ENVIRONMENTAL CORPORATION
1382 W. 9th St., Suite 400
Cleveland, OH 44113
PHONE: (216) 344-3072
E-MAIL: rpulliam@trccompanies.com



ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

TRC ENVIRONMENTAL LABORATORY
21 GRIFFIN ROAD NORTH
WINDSOR, CT 06095
PHONE: (860) 298-9692

LAB ID #: 70458

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME					
682849.0000 Phase 8 Task 1		LAK-90-6.99 (Bridge LAK-MR 1972-0.879)				PLM:	8hr	☒	24hr	48hr	3day
SIGNATURE		INSPECTOR				TEM:	24hr		48hr	3day	5day
		Ryan Pulliam (ES35048)				MATERIAL					
FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION						
MR1972-1	9/8/26	NA		X	West side Fence	X		X			Black Caulking fence posts
MR1972-2	↓	↓		↓	↓	↓		↓			↓
MR1972-3	↓	↓		↓	East side Fence	↓		↓			↓
MR1972-4	↓	↓		↓	west side concrete	↓		↓			Tan/grey concrete barrier spacing material
MR1972-5	↓	↓		↓	↓	↓		↓			↓
MR1972-6	↓	↓		↓	East side concrete	↓		↓			↓

Relinquished by: (Signature) 	Date: 9/8/26	Received by: (Signature) 	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Ryan Pulliam	Time: 1430	(Printed) K.W. Harrison	(Printed)	Time:	(Printed)
Remarks: Samples taken in OH			Condition of Samples: Acceptable: Yes ☒ No ☐ Comments:		Page <u>1</u> of <u>1</u>

APPENDIX D

NOTIFICATION OF DEMOLITION AND

RENOVATIONS/ABATEMENT FORM



Notification of Demolition and Renovation/Abatement

Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, **including payment**, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at epa.ohio.gov/asbestos. This form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? asbestos@epa.ohio.gov or (614) 466-0061.

Ohio EPA Use Only	Notification #:	Postmarked: / /	Received: / /	☐ Hand-Delivered
-------------------	-----------------	-----------------	---------------	---

1) Notification Information (Check all that apply)

☒ Original	☐ Revision # (count):	☐ Installation	☐ Emergency	☐ Annual	☐ Cancellation	Project County: Lake
☐ NESHAP Residential Exemption						

2) Owner, Asbestos Abatement Contractor, Billing and Fire Department Information

Revised? ☐

Owner		
Name: Ohio Department of Transportation - District 12		Is this a company? ☐ Yes ☒ No
Address: 5500 Transportation Boulevard		Contact Person: Tom Sorge
City: Garfield Heights	State: OH	Zip: 44125
Email:	Phone: 216.584.2086	Fax:
Asbestos Abatement Contractor (if applicable)		
Name:	License #:	Expiration Date: / /
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Billing Contact (Entity paying for original notification)		
Is this contact associated with the ☒ Owner, ☐ Asbestos Abatement Contractor, or ☐ Demolition Contractor (if not installation)?		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Fire Department (if applicable)		
Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

3) Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure

Revised? ☐

Evaluation Specialist: Ryan Pulliam	Certification #: ES35048	Expiration Date: 04 / 21 /2027
Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II non-friable asbestos-containing material: ☒ PLM ☐ Point Count ☐ TEM ☐ Other Method (Explain Below):		

4) Procedures to be followed should unexpected RACM be discovered (check all that apply)

Revised? ☐

☒ Stop work and keep wet	☐ Evacuate area	☒ Demarcate area	☒ Contact licensed abatement contractor
☐ Contact district office/local air authority			
☐ Other (Explain):			

5) Planned Demolition (check all that apply)

Revised? ☐

Describe demolition work to be performed and method(s) to be employed, including demolition techniques to be used: ☐ Implosion ☐ Fire Training ☐ Wet Methods ☐ Manual Demolition ☐ Mechanical Demolition ☐ Other (Explain):	
Description of affected facility components (include attachment if necessary):	

Mail completed form and payment to:
Ohio EPA, DAPC – Asbestos
P.O. Box 1049, Columbus, OH 43216-1049

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Continued

6) Asbestos Description and Engineering Controls (if asbestos is being abated)

Revised? ☐

For the material listed in each project, describe the type(s) of ACM to be abated, engineering controls and work practices to be used to minimize emissions and ensure proper waste handling:

Type of ACM to be abated:	☐ Surfacing	☐ Mechanical	☐ Other		
Engineering Controls:	☐ Wet Methods	☐ Glove Bag	☐ NPE	☐ AFD	☐ Other:
Work Practices:	☐ Intact Removal	☐ Manual	☐ Mechanical	☐ Other:	

7) Asbestos Waste Transporter (if applicable)

Revised? ☐

Transporter #1 Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Transporter #2 Name (if applicable):		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

8) Asbestos Waste Disposal Site (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

9) Emergency Demolition (complete if you checked "Emergency" above and "Demolition" for any project)

Revised? ☐

A copy of the issued order, including the following information, **must be attached** to this notification.

Government Official Issuing Order:	Title:
Agency:	Authority of Order (Citation of Code):
Date of Order: / /	Demolition Date: / /

10) Emergency Renovation/Abatement (complete if you checked "Emergency" above and "Renovation/Abatement" for any project)

Revised? ☐

Date of Emergency: / /	Time of Emergency: : ☐ a.m. ☐ p.m.
Description of Sudden, Unexpected Event:	
Explanation of how the event caused unsafe conditions or equipment damage:	

11) Attestation

Revised? ☐

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification. I acknowledge that the submission of false or misleading statements is prohibited by law and I certify that facts contained in this notification are true, accurate, and complete.

Signature:	Date: / /
Name:	Title:
Organization:	



Notification of Demolition and Renovation/Abatement

Section 2: Project Address Specific Information

Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only Project ID #:

A. Facility Description

Revised? ☐

Building Name (if applicable): LAK-MR 1972-0.879 (SFN 4303962)		Site Location (specific): 41.636369, -81.383466	
Address: Along Kirkland Road crossing over I-90			
City: Willoughby		State: OH	Zip: 43094
Building Size (square feet):		No. of Floors:	Age: 66 years
Present Use: Bridge		Prior Use:	

B. Type of Operation (check all that apply)

Revised? ☐

☐ Demolition	☒ Renovation/Abatement – Type:	☐ Removal	☒ Repair	☐ Encapsulation	☐ Enclosure
-------------------------------------	--	----------------------------------	--	--	------------------------------------

C. Asbestos Present (check one)

Revised? ☐

☐ Yes	☒ No	☐ No, previously abated	Year Abated:
------------------------------	--	--	--------------

D. Approximate Amount of Asbestos-Containing Materials (complete table below and Section 1 #6 if asbestos is present)

Revised? ☐

	Material to be Removed				Material NOT to be Removed	
	RACM	Non-friable Asbestos-Containing Material			Non-friable Asbestos-Containing Material	
		Category I	Category II		Category I	Category II
Pipes (linear feet)						
Surface area on other facility components (ft ²)						
Volume if length or area cannot be measured (ft ³)						

E. Asbestos Abatement Schedule and Abatement Specialist (original notification is required 10 working days prior to the start of work)

Revised? ☐

Setup Date: / /		Abatement Date: / /		Complete Date: / /			
(Shift 1) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	
(Shift 2) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	

F. Demolition Contractor (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

G. Demolition Schedule (original notification is required 10 working days prior to the start of work)

Revised? ☐

Start Date: / /	Complete Date: / /
-----------------	--------------------

H. Project Hold

Revised? ☐

Asbestos Abatement Offsite/On Hold as of Date: / /	Asbestos Abatement On Site/Off Hold, Work Resume Date: / /
Demolition Offsite/On Hold as of Date: / /	Demolition On Site/Off Hold, Work Resume Date: / /

APPENDIX E
PHOTOGRAPHIC LOG

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1972-0.879 (PID 116955) Bridge Structure (SFN 4303962) of Kirtland Road over I-90	Project No.: 682849.0008.0001
Photo No. 1	Date September 8, 2026		
Description: View of LAK-MR 1972-0.879, facing north.			

Photo No. 2	Date September 8, 2026	
Description: View of LAK-MR 1972-0.879, facing south.		

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1972-0.879 (PID 116955) Bridge Structure (SFN 4303962) of Kirtland Road over I-90	Project No.: 682849.0008.0001
Photo No. 3	Date September 8, 2026		
Description: Underneath view of LAK-MR 1972-0.879, facing southeast.			

Photo No.	Date	
4	September 8, 2026	
Description: View of Black Caulking on fence post along bridge sidewalls (MR1972-1, MR1972-2, and MR1972-3), facing northwest.		

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1972-0.879 (PID 116955) Bridge Structure (SFN 4303962) of Kirtland Road over I-90	Project No.: 682849.0008.0001
Photo No. 5	Date September 8, 2026		
Description: View of tan/grey concrete spacing material located on sidewalk barriers (MR1972-4, MR1972-5, and MR1972-6), facing west.			

ASBESTOS SURVEY REPORT

LAK-MR 1984-0.941 (PID 116955)

Bridge Structure (SFN 4304144) of Chillicothe Road over I-90
Kirtland Hills, Lake County, Ohio 44060



Ohio Department of Transportation District 12
September 11, 2026

Prepared by
TRC Environmental Corporation, 1382 W. 9th Street, Suite 400,
Cleveland, Ohio 44113



OHIO DEPARTMENT OF
TRANSPORTATION

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- B. Asbestos Sample Location Map
- C. Laboratory Reports, Chain-of-Custody Forms
- D. Notification of Demolition and Renovations/Abatement Form
- E. Photograph Log

1.0 INTRODUCTION

The Ohio Department of Transportation (ODOT) contracted with Davey Resource Group, Inc. (Davey) for general environmental services in District 12. Davey subcontracted with TRC Environmental Corporation (TRC) to conduct a pre-renovation level asbestos survey (Survey) of the bridge structure (Structure File Number (SFN) 4304144) where Chillicothe Road crosses over Interstate-90 (I-90) in Kirtland Hills, Lake County, Ohio 44060 (the “Site”), which is referred to as the LAK-MR 1984-0.941 (PID 116955) project. The Survey work is being conducted as part of a larger rehabilitation project associated with the LAK-90-6.99 Rehabilitation project. The Survey was conducted in accordance with TRC Environmental Service Agreement No. 42602. The purpose of the Survey was to identify asbestos-containing material (ACM) that may require abatement prior to replacing bearings and/or repairing spalls on the bridge.

Ryan Pulliam, TRC Ohio-licensed Certified Asbestos Hazard Evaluation Specialist (CAHES), Certification Number ES35048, conducted the Survey on September 8, 2026. This report summarizes the Survey findings, the material conditions, and the condition of the bridge structure as observed on the stated date.

A copy of applicable State of Ohio asbestos certification for Ryan Pulliam is provided in **Appendix A**. A Site figure, which shows the asbestos sampling locations, is provided in **Appendix B**. Laboratory results are provided in **Appendix C**. The Notification of Demolition and Renovation form is provided in **Appendix D**. Site photographs are provided in **Appendix E**.

An ACM inventory, which provides the location, material description, TRC-assigned sample number, condition, estimated quantity, and specific notes (if warranted) for suspect materials identified at the bridge structure, are provided in **Table 1**.

2.0 SCOPE OF WORK

The scope of services for this Site survey consisted of the following tasks:

- Perform an asbestos survey to identify and quantify ACMs on the bridge structure. Suspect ACMs were sampled in accordance with Asbestos Hazard Emergency Response Act (AHERA) sampling requirements, outlined in Chapter 40 of the Code of Federal Regulations (CFR), Part 763.86. Samples collected were analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited laboratory for the presence of asbestos. Samples were analyzed using polarized light microscopy (PLM) by U.S. Environmental Protection Agency (EPA) Method 600/R-93/116.
- Prepare tables indicating sample locations, sample types, analytical results, and/or quantities of ACM.
- Prepare drawings indicating the approximate bridge structure configurations, sample locations, and locations of identified ACM.
- Prepare a summary report that documents the findings of the survey, detailing the items listed above, including supporting documentation, such as the chain of custody and laboratory analytical results.

2.1 Limitations

Only areas accessible by foot from both ends of the bridge span and areas accessible by foot within the right of way (ROW) were inspected. There may be areas of the bridge structure which were not readily visible, accessible, and/or discovered during the Survey that may contain ACMs that are not identified within this report. . These areas include, but are not limited to, areas only accessible from the interstate.

TRC recommends that if hidden suspect ACM is encountered during renovation activities, the material may be either: 1) assumed asbestos and abated accordingly or 2) sampled by certified personnel and analyzed by an accredited laboratory to determine the nature of the suspect material.

3.0 REVIEW OF PRIOR ASBESTOS SURVEY REPORTS

No prior asbestos survey reports were made available for review.

4.0 STRUCTURE SUMMARY

The existing LAK-MR 1984-0.941 bridge structure (SFN 4304144) is located where Chillicothe Road crosses over I-90 in Kirtland Hills, Lake County, Ohio 44060. The bridge is comprised primarily of steel with reinforced concrete pier columns, a combined reinforced concrete deck and roadway with reinforced concrete abutments, concrete and metal guard rails, and metal chain-link fencing.

5.0 ASBESTOS INSPECTION, SAMPLING, AND ASSESSMENT PROCEDURES

5.1 Asbestos-Containing Materials Terminology

The U.S. Environmental Protection Agency (EPA) defines ACMs as follows:

1. Friable ACM is defined as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.
2. Non-friable ACM is any material containing more than one percent (1%) asbestos as determined using the PLM method that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. The EPA further defines two categories of non-friable ACM:
 - a. Category I (Cat I) - Category I non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using PLM, and
 - b. Category II (Cat II) - Category II non-friable ACM is any material, excluding Category I non-friable ACM, containing more than one percent (1%) asbestos as determined using

PLM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

3. Regulated Asbestos-Containing Material (RACM) is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

5.2 General Inspection and Sampling Procedures

The inspection was performed following the protocol outlined in the EPA AHERA found in 40 CFR 763. Although the AHERA regulations were originally intended for public and private school buildings housing kindergarten through 12th-grade classes, they have become the accepted industry standard for conducting asbestos investigations in all types of buildings and structures. Occupational Safety and Health Administration (OSHA) regulations also reference AHERA as the required method of conducting asbestos inspections in all public and commercial buildings.

Accessible areas of the bridge structure were visually inspected for suspect ACM. The TRC inspector first grouped suspect materials into homogeneous areas for sampling purposes; homogeneous areas consist of materials with like appearance, color, texture, and application date. A physical assessment was also conducted to determine the current condition and degree of friability. The inspection encompassed both friable and non-friable materials. The inspector then assumed that specific materials remained homogeneous (based upon the material's appearance and application) throughout the areas. In situations where materials appeared to alternate between potentially asbestos-containing and non-asbestos-containing, the inspector looked for visible differences in the materials. If differences were not apparent, professional judgment was incorporated, which resulted in the assumption that all materials were asbestos-containing.

5.3 Bulk Sample Collection Methods

To avoid disturbing suspect materials more than necessary and to minimize the potential release of asbestos fibers, bulk sampling was conducted in accordance with the sampling protocol identified in 40 CFR 763. Each sample collected was pre-wetted and obtained using appropriate hand tools. Samples were placed into clean sample bags which were sealed and labeled with a unique sample identification number. Care was taken to obtain a sample that was representative of all layers of the sampled material. The sampling tools were then thoroughly cleaned before collecting the next sample to avoid cross-contamination. Pertinent information, such as the date of inspection, name of the inspector, room/area description, location of the sample, type of material collected, and quantity of material present was recorded in a field sample log. Insulation materials that were determined by the inspector to be exclusively fiberglass or rubber were not sampled.

5.4 Analysis of Bulk Samples

A total of six (6) bulk samples of suspect ACM were collected and submitted to and analyzed by TRC Industrial Hygiene Laboratory (TRC Lab) located in Windsor, Connecticut. The TRC Lab is accredited through the American Industrial Hygiene Association (AIHA) and the NVLAP for PLM analysis (NVLAP #101424-0).

The TRC Lab analyzed the bulk samples using PLM, which is used for qualitative identification of six different types of asbestos fibers: Chrysotile, Amosite, Crocidolite, Anthophyllite, Tremolite, and Actinolite. The method requires the laboratory to take a portion of the sample and treat it with oil having a specific refractive index. This prepared slide is then subjected to microscopic testing necessary to identify the asbestos type, as each type displays unique characteristics when subjected to these tests. Quantification of asbestos listed on the laboratory reports was determined by observing the material through a stereoscope and assigning a visual estimate.

5.5 Reporting of Analysis Results

The PLM method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percent) within the range of 0 to 100. Minute quantities of asbestos in bulk samples may be reported as “trace” or less than one percent. The composition of the bulk sample is reported in percentages of asbestos and non-asbestos components.

5.6 Asbestos Assessment Findings

No samples collected contained detectable levels of asbestos, based on the PLM method.

The materials that were sampled are identified in **Table 1** below. Laboratory reports and chain of custody records are presented in **Appendix C**.

Table 1 – Summary of Materials Sampled for Asbestos

Bridge Structure (SFN 4304144) – LAK-MR 1984-0.941							
Sample Number	Material	Sample Location(s)	Percentage / Type of Asbestos	Approx. Quantity	Condition	Type	NESHAP Category
MR1984-1	Black Caulking	Northeast of bridge sidewall fence	ND	720 LF	Good	Misc.	NA
MR1984-2		Southeast of bridge sidewall fence	ND				
MR1984-3		Southwest of bridge sidewall fence	ND				
MR1984-4		Northeast of bridge sidewall concrete	ND	288 SF	Good	Misc.	NA

Bridge Structure (SFN 4304144) – LAK-MR 1984-0.941							
Sample Number	Material	Sample Location(s)	Percentage / Type of Asbestos	Approx. Quantity	Condition	Type	NESHAP Category
MR1984-5	Tan/Grey Concrete Spacer Material	East central bridge sidewall concrete	ND				
MR1984-6		Northwest of bridge sidewall concrete	ND				

Notes:

SF – Square Feet

Misc. – Miscellaneous

NA – Not Applicable

ND – None Detected to < 1% ACM

6.0 CONCLUSIONS AND RECOMMENDATIONS

Results of laboratory analysis indicated that asbestos was not detected in any of the samples.

Prior to renovation activities, it is recommended that the ***Notification of Demolition and Renovation /Abatement*** form be submitted to Ohio EPA, which has been started and is included in **Appendix D**.

7.0 DISCLAIMER

The content presented in this survey report is based on data collected during the Survey and information obtained through the review of pertinent regulations, requirements, guidelines, and commonly followed industry standards, and information provided (if any) by the Client, property owner, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties. Structures or components thereof surveyed may contain hidden surfaces or materials requiring destructive access to survey and/or sample. It is possible that additional materials could be discovered during destructive, demolition/renovation, and/or excavation activities. In the event additional materials (not identified herein) are discovered during such activities, an additional survey and sampling may be necessary.

This survey report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos abatement contractor in locating ACM. This report is not intended for and may not be utilized as a bidding document or as an abatement project specification document.

8.0 CERTIFICATION

TRC hereby certifies that the services conducted and described in this document and the findings resulting from those services reported herein have been provided in a manner consistent with the current standards of the profession, and to the best of our knowledge, comply with applicable federal, state, and local statutes, regulations, and ordinances. If there are any questions concerning information contained in this report, please contact the undersigned at (216) 344-3072.

Sincerely,

TRC Environmental Corporation

Report Prepared By:

Reviewed by:



Ryan Pulliam
Asbestos Inspector (ES35048)



Keaton A. Henry, C.P., P.G.
Project Manager (ES36367)

APPENDIX A

CONSULTANT CERTIFICATIONS



**Environmental
Protection
Agency**

EPA.Ohio.gov

Mike DeWine, Governor Jim Tressel, Lt. Governor John Logue, Director

4/21/2026

Ryan Pulliam
TRC
1382 W. 9th St., Suite 400
Cleveland, OH 44113

RE: Evaluation Specialist
 Certification Number: ES35048
 Expiration Date: 4/21/2027

Dear Ryan Pulliam:

This letter and enclosed certification card approves your request to be certified as an asbestos Evaluation Specialist. You must present your card upon request at any project site while performing duties. Copies of cards are not acceptable as proof of certification.

This certification may be revoked by the Director of the Ohio Environmental Protection Agency (EPA) for violation of any of the requirements of 3745-22 or 3745-20 of the Ohio Administrative Code.

If you have any questions, please contact the Asbestos Program at 614-644-0226 or by email at asbestoslicensing@epa.ohio.gov.

Sincerely,

Brandon M. Schwendeman

Brandon Schwendeman
Manager, Business Operations Support Section
Ohio EPA - Division of Air Pollution Control



APPENDIX B

SITE FIGURE

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet, Map Rotation: 0
Saved By: MOPEL on 9/10/2026, 11:11:18 AM, File Path: T:\H-PROJECTS\Ohio DOT\682849_LAK-Bridges\2-APRX\Sampling.aprx, Layout Name: Fig01 - Sampling 1984

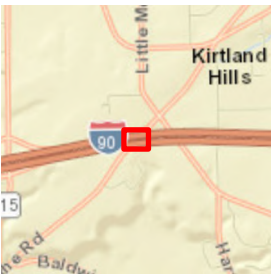


● ASBESTOSSAMPLELOCATION



1:600
1" = 50'

0 50 100 FEET



PROJECT: **LAK-MR 1984-0.941 (SFN 4304144)**
CHILLICOTHE ROAD OVER I-90 IN KIRTLAND HILLS
LAKE COUNTY, OH

TITLE:
ASBESTOS SAMPLE LOCATION MAP

DRAWN BY: M. OPEL PROJ. NO.: 682849

CHECKED BY: R. PULLIAM

APPROVED BY: R. PULLIAM

DATE: SEPTEMBER 2026

FIGURE 1



1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Sampling.aprx

APPENDIX C

LABORATORY REPORTS, CHAIN-OF-CUSTODY FORMS



BULK ASBESTOS ANALYSIS REPORT

CLIENT: Ohio Department of Transportation

Lab Log #: 0070459

Project #: 682849.0008.0001

Date Received: 09/09/2026

Date Analyzed: 09/10/2026

Site: LAK-90-6.99 (Bridge LAK-MR 1984-01.941)

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
MR 1984-1	East side fence	Black fence post caulking	- - -	ND	None
MR 1984-2	East side fence	Black fence post caulking	- - -	ND	None
MR 1984-3	West side fence	Black fence post caulking	- - -	ND	None
MR 1984-4	East side concrete	Tan/Grey concrete spacing material	- - -	ND	None
MR 1984-5	East side concrete	Tan/Grey concrete spacing material	- - -	ND	None
MR 1984-6	West side concrete	Tan/Grey concrete spacing material	- - -	ND	None

ND - asbestos was not detected

Trace - asbestos was observed at level of 1% or less - This is the reporting limit

NA/PS - Not Analyzed / Positive Stop

SNA - Sample Not Analyzed- See Chain of Custody for details

Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows 18/01A EPA -- 40 CFR Appendix E to subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples and 18/A03 EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 101424-01. TRC is accredited by the AIHA Laboratory Accreditation Programs AIHA LAP (ID: LAP-100122) in the Industrial Hygiene Program (IHLAP) for PLM. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, as received by the laboratory.

Analyzed by:

Kathleen Williamson, Laboratory Manager

Reviewed by

Najaat Bhura, Approved Signatory

Date Issued

09/10/2026

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #PLM00007 TX #300354
CO# AL-21772

AIHA LAP #100122
VT #An-000020
LA#05011

CT #PH-0426
VA #3333 000283
PA#68-03387

ME LB-0071
AZ #AZ0944
PHIL#ALL-461

MA #AA000052
HI #L-09-004

NY #10980 WV #000622
NV #CT00004 CA #2907
WA #C1071

TRC ENVIRONMENTAL CORPORATION
1382 W. 9th St., Suite 400
Cleveland, OH 44113
PHONE: (216) 344-3072
E-MAIL: rpulliam@trccompanies.com



ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

TRC ENVIRONMENTAL LABORATORY
21 GRIFFIN ROAD NORTH
WINDSOR, CT 06095
PHONE: (860) 298-9692

LAB ID #: 70459

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME					
682849.0000 Phase 8 Task 1		LAK-90-6.99 (Bridge LAK-MR-1984-01.941)				PLM:	8hr	☒ 24hr	48hr	3day	
SIGNATURE		INSPECTOR				TEM:	24hr	48hr	3day	5day	
		Ryan Pulliam (ES35048)				MATERIAL					
FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION						PLM EPA 600/R93/116 (POSITIVE STOP)
MR1984-1	9/8/26	N/A		X	East side fence	X		X			Black Caulking on fence post
MR1984-2					↓						
MR1984-3					West side fence						
MR1984-4					East side concrete						Tan/grey concrete spacing material
MR1984-5					↓						
MR1984-6	✓	↓		↓	West side concrete	↓		↓			↓

Relinquished by: (Signature) 	Date: 9/8/26	Received by: (Signature) 	9/9/26	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Ryan Pulliam	Time: 1430	(Printed) K. Williamson	1150	(Printed)	Time:	(Printed)
Remarks: Samples taken in OH				Condition of Samples: Acceptable: Yes ☒ No ☐ Comments:		Page 1 of 1

APPENDIX D

NOTIFICATION OF DEMOLITION AND

RENOVATIONS/ABATEMENT FORM



Notification of Demolition and Renovation/Abatement

Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, **including payment**, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at epa.ohio.gov/asbestos. This form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? asbestos@epa.ohio.gov or (614) 466-0061.

Ohio EPA Use Only	Notification #:	Postmarked: / /	Received: / /	☐ Hand-Delivered
-------------------	-----------------	-----------------	---------------	---

1) Notification Information (Check all that apply)

☒ Original	☐ Revision # (count):	☐ Installation	☐ Emergency	☐ Annual	☐ Cancellation	Project County: Lake
☐ NESHAP Residential Exemption						

2) Owner, Asbestos Abatement Contractor, Billing and Fire Department Information

Revised? ☐

Owner		
Name: Ohio Department of Transportation - District 12		Is this a company? ☐ Yes ☒ No
Address: 5500 Transportation Boulevard		Contact Person: Tom Sorge
City: Garfield Heights	State: OH	Zip: 44125
Email:	Phone: 216.584.2086	Fax:
Asbestos Abatement Contractor (if applicable)		
Name:	License #:	Expiration Date: / /
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Billing Contact (Entity paying for original notification)		
Is this contact associated with the ☒ Owner, ☐ Asbestos Abatement Contractor, or ☐ Demolition Contractor (if not installation)?		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Fire Department (if applicable)		
Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

3) Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure

Revised? ☐

Evaluation Specialist: Jonathan Blackert	Certification #: ES35048	Expiration Date: 04 /2 1 /2027
Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II non-friable asbestos-containing material: ☒ PLM ☐ Point Count ☐ TEM ☐ Other Method (Explain Below):		

4) Procedures to be followed should unexpected RACM be discovered (check all that apply)

Revised? ☐

☒ Stop work and keep wet	☐ Evacuate area	☒ Demarcate area	☒ Contact licensed abatement contractor
☐ Contact district office/local air authority			
☐ Other (Explain):			

5) Planned Demolition (check all that apply)

Revised? ☐

Describe demolition work to be performed and method(s) to be employed, including demolition techniques to be used: ☐ Implosion ☐ Fire Training ☐ Wet Methods ☐ Manual Demolition ☐ Mechanical Demolition ☐ Other (Explain):	
Description of affected facility components (include attachment if necessary):	

Mail completed form and payment to:
Ohio EPA, DAPC – Asbestos
P.O. Box 1049, Columbus, OH 43216-1049

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Continued

6) Asbestos Description and Engineering Controls (if asbestos is being abated)

Revised? ☐

For the material listed in each project, describe the type(s) of ACM to be abated, engineering controls and work practices to be used to minimize emissions and ensure proper waste handling:

Type of ACM to be abated:	☐ Surfacing	☐ Mechanical	☐ Other		
Engineering Controls:	☐ Wet Methods	☐ Glove Bag	☐ NPE	☐ AFD	☐ Other:
Work Practices:	☐ Intact Removal	☐ Manual	☐ Mechanical	☐ Other:	

7) Asbestos Waste Transporter (if applicable)

Revised? ☐

Transporter #1 Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Transporter #2 Name (if applicable):		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

8) Asbestos Waste Disposal Site (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

9) Emergency Demolition (complete if you checked "Emergency" above and "Demolition" for any project)

Revised? ☐

A copy of the issued order, including the following information, **must be attached** to this notification.

Government Official Issuing Order:	Title:
Agency:	Authority of Order (Citation of Code):
Date of Order: / /	Demolition Date: / /

10) Emergency Renovation/Abatement (complete if you checked "Emergency" above and "Renovation/Abatement" for any project)

Revised? ☐

Date of Emergency: / /	Time of Emergency: : ☐ a.m. ☐ p.m.
Description of Sudden, Unexpected Event:	
Explanation of how the event caused unsafe conditions or equipment damage:	

11) Attestation

Revised? ☐

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification. I acknowledge that the submission of false or misleading statements is prohibited by law and I certify that facts contained in this notification are true, accurate, and complete.

Signature:	Date: / /
Name:	Title:
Organization:	



Notification of Demolition and Renovation/Abatement

Section 2: Project Address Specific Information

Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only Project ID #:

A. Facility Description

Revised? ☐

Building Name (if applicable): LAK-MR 1984-0.941 (SFN 4304144)		Site Location (specific): 41.647814, -81.328095	
Address: Along Chillicothe Road crossing over I-90			
City: Kirtland Hills		State: OH	Zip: 44060
Building Size (square feet):		No. of Floors:	Age: 64 years
Present Use: Bridge		Prior Use:	

B. Type of Operation (check all that apply)

Revised? ☐

☐ Demolition	☒ Renovation/Abatement – Type: ☐ Removal ☒ Repair ☐ Encapsulation ☐ Enclosure
-------------------------------------	--

C. Asbestos Present (check one)

Revised? ☐

☐ Yes	☒ No	☐ No, previously abated	Year Abated:
------------------------------	--	--	--------------

D. Approximate Amount of Asbestos-Containing Materials (complete table below and Section 1 #6 if asbestos is present)

Revised? ☐

	Material to be Removed			Material NOT to be Removed	
	RACM	Non-friable Asbestos-Containing Material		Non-friable Asbestos-Containing Material	
		Category I	Category II	Category I	Category II
Pipes (linear feet)					
Surface area on other facility components (ft²)					
Volume if length or area cannot be measured (ft³)					

E. Asbestos Abatement Schedule and Abatement Specialist (original notification is required 10 working days prior to the start of work)

Revised? ☐

Setup Date: / /		Abatement Date: / /		Complete Date: / /			
(Shift 1) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	
(Shift 2) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	

F. Demolition Contractor (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

G. Demolition Schedule (original notification is required 10 working days prior to the start of work)

Revised? ☐

Start Date: / /	Complete Date: / /
-----------------	--------------------

H. Project Hold

Revised? ☐

Asbestos Abatement Offsite/On Hold as of Date: / /	Asbestos Abatement On Site/Off Hold, Work Resume Date: / /
Demolition Offsite/On Hold as of Date: / /	Demolition On Site/Off Hold, Work Resume Date: / /

APPENDIX E
PHOTOGRAPHIC LOG

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1984-0.941 (PID 116955) Bridge Structure (SFN 4304144) Chillicothe Road over I-90	Project No.: 682849.0008.0001
Photo No. 1	Date September 8, 2026		
Description: View of LAK-MR 1984-0.941, facing southwest.			

Photo No. 2	Date September 8, 2026	
Description: View of LAK-MR 1984-0.941, facing northeast.		

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1984-0.941 (PID 116955) Bridge Structure (SFN 4304144) Chillicothe Road over I-90	Project No.: 682849.0008.0001
Photo No. 3	Date September 8, 2026		
Description: Underneath view of LAK-MR 1984-0.941, facing southwest.			

Photo No.	Date	
4	September 8, 2026	
Description: View of black caulking on fence post along bridge sidewalls (MR1984-1, MR1984-2, and MR1984-3), facing southwest.		

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1984-0.941 (PID 116955) Bridge Structure (SFN 4304144) Chillicothe Road over I-90	Project No.: 682849.0008.0001
Photo No. 5	Date September 8, 2026		
Description: View of tan/grey concrete spacing material located on sidewall barriers (MR1984-4, MR1984-5, and MR1984-6), facing southeast.			

ASBESTOS SURVEY REPORT

LAK-MR 1992-0.951(PID 116955)

Bridge Structure (SFN 4304209) of Hart Road over I-90
Kirtland Hills, Lake County, Ohio 44060



Ohio Department of Transportation District 12
September 11, 2026

Prepared by
TRC Environmental Corporation, 1382 W. 9th Street, Suite 400,
Cleveland, Ohio 44113



OHIO DEPARTMENT OF
TRANSPORTATION

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- A. TRC Consultant Certification(s)
- B. Asbestos Sample Location Map
- C. Laboratory Reports, Chain-of-Custody Forms
- D. Notification of Demolition and Renovations/Abatement Form
- E. Photograph Log

1.0 INTRODUCTION

The Ohio Department of Transportation (ODOT) contracted with Davey Resource Group, Inc. (Davey) for general environmental services in District 12. Davey subcontracted with TRC Environmental Corporation (TRC) to conduct a pre-renovation level asbestos survey (Survey) of the bridge structure (Structure File Number (SFN) 4304209 where Hart Road crosses over Interstate-90 (I-90) in Kirtland Hills, Lake County, Ohio 44060 (the “Site”), which is referred to as the in the LAK-MR 1992-0.951 (PID 116955) project. The Survey work is being conducted as part of a larger rehabilitation project associated with the LAK-90-6.99 Rehabilitation project. The Survey work was conducted in accordance with TRC Environmental Service Agreement No. 42602. The purpose of the Survey was to identify asbestos-containing material (ACM) that may require abatement prior to replacing bearings and/or repairing spalls on the bridge.

Ryan Pulliam, TRC Ohio-licensed Certified Asbestos Hazard Evaluation Specialist (CAHES), (Certification Number ES35048), TRC Senior Environmental Scientist, conducted the Survey on September 8, 2026. This report summarizes the Survey findings, the material conditions, and the condition of the bridge structure as observed on the stated date.

A copy of applicable State of Ohio asbestos certification for Ryan Pulliam is provided in **Appendix A**. A Site figure, which shows the asbestos sampling locations, is provided in **Appendix B**. Laboratory results are provided in **Appendix C**. The Notification of Demolition and Renovation form is provided in **Appendix D**. Site photographs are provided in **Appendix E**.

An ACM inventory, which provides the location, material description, TRC-assigned sample number, condition, estimated quantity, and specific notes (if warranted) for suspect materials identified at the bridge structure, are provided in **Table 1**.

2.0 SCOPE OF WORK

The scope of services for this Site survey consisted of the following tasks:

- Perform an asbestos survey to identify and quantify ACMs on the bridge structure. Suspect ACMs were sampled in accordance with Asbestos Hazard Emergency Response Act (AHERA) sampling requirements, outlined in Chapter 40 of the Code of Federal Regulations (CFR), Part 763.86. Samples collected were analyzed by a National Voluntary Laboratory Accreditation Program (NVLAP)-accredited laboratory for the presence of asbestos. Samples were analyzed using polarized light microscopy (PLM) by U.S. Environmental Protection Agency (EPA) Method 600/R-93/116.
- Prepare tables indicating sample locations, sample types, analytical results, and/or quantities of ACM.
- Prepare drawings indicating the approximate bridge structure configurations, sample locations, and locations of identified ACM.
- Prepare a summary report that documents the findings of the survey, detailing the items listed above including supporting documentation, such as the chain of custody and laboratory analytical results.

2.1 Limitations

Only areas accessible by foot from both ends of the bridge span on top of the bridge and areas accessible by foot within the right of way (ROW) were inspected. There may be areas of the bridge structure which were not readily visible, accessible, and/or discovered during the Survey that may contain ACMs that are not identified within this report. These areas include, but are not limited to, areas only accessible from the interstate.

TRC recommends that if hidden suspect ACM is encountered during renovation activities, the material may be either: 1) assumed asbestos and abated accordingly or 2) sampled by certified personnel and analyzed by an accredited laboratory to determine the nature of the suspect material.

3.0 REVIEW OF PRIOR ASBESTOS SURVEY REPORTS

No prior asbestos survey reports were made available for review.

4.0 STRUCTURE SUMMARY

The existing LAK-MR 1992-0.951 bridge structure (SFN 4304209) is located where Hart Road crosses over I-90 in Kirtland Hills, Lake County, Ohio 44060. The bridge is comprised primarily of steel with reinforced concrete pier columns, a combined reinforced concrete deck and roadway with reinforced concrete abutments, concrete and metal guard rails, and metal chain-link fencing.

5.0 ASBESTOS INSPECTION, SAMPLING, AND ASSESSMENT PROCEDURES

5.1 Asbestos-Containing Materials Terminology

The U.S. Environmental Protection Agency (EPA) defines ACMs as follows:

1. Friable ACM is defined as any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1, Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.
2. Non-friable ACM is any material containing more than one percent (1%) asbestos as determined using the PLM method that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. The EPA further defines two categories of non-friable ACM:
 - a. Category I (Cat I) - Category I non-friable ACM is any asbestos-containing packing, gasket, resilient floor covering or asphalt roofing product which contains more than one percent (1%) asbestos as determined using PLM, and

- b. Category II (Cat II) - Category II non-friable ACM is any material, excluding Category I non-friable ACM, containing more than one percent (1%) asbestos as determined using PLM that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
3. Regulated Asbestos-Containing Material (RACM) is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

5.2 General Inspection and Sampling Procedures

The inspection was performed following the protocol outlined in the EPA AHERA found in EPA 40 CFR 763. Although the AHERA regulations were originally intended for public and private school buildings housing kindergarten through 12th-grade classes, they have become the accepted industry standard for conducting asbestos investigations in all types of buildings and structures. Occupational Safety and Health Administration (OSHA) regulations also reference AHERA as the required method of conducting asbestos inspections in all public and commercial buildings.

Accessible areas of the bridge structure were visually inspected for suspect ACM. The TRC inspector first grouped suspect materials into homogeneous areas for sampling purposes; homogeneous areas consist of materials with like appearance, color, texture, and application date. A physical assessment was also conducted to determine the current condition and degree of friability. The inspection encompassed both friable and non-friable materials. The inspector then assumed that specific materials remained homogeneous (based upon the material's appearance and application) throughout the areas. In situations where materials appeared to alternate between potentially asbestos-containing and non-asbestos-containing, the inspector looked for visible differences in the materials. If differences were not apparent, professional judgment was incorporated which resulted in the assumption that all materials were asbestos-containing.

5.3 Bulk Sample Collection Methods

To avoid disturbing suspect materials more than necessary and to minimize the potential release of asbestos fibers, bulk sampling was conducted in accordance with the sampling protocol identified in 40 CFR 763. Each sample collected was pre-wetted and obtained using appropriate hand tools. Samples were placed into clean sample bags which were sealed and labeled with a unique sample identification number. Care was taken to obtain a sample that was representative of all layers of the sampled material. The sampling tools were then thoroughly cleaned before collecting the next sample to avoid cross-contamination. Pertinent information, such as the date of inspection, name of the inspector, room/area description, location of the sample, type of material collected, and quantity of material present was recorded in a field sample log. Insulation materials that were determined by the inspector to be exclusively fiberglass or rubber were not sampled.

5.4 Analysis of Bulk Samples

A total of three (3) bulk samples of suspect ACM were collected and submitted to and analyzed by TRC Industrial Hygiene Laboratory (TRC Lab) located in Windsor, Connecticut. The TRC Lab is accredited through the American Industrial Hygiene Association (AIHA), and the (NVLAP) for PLM analysis (NVLAP #101424-0).

The TRC Lab analyzed the bulk samples using PLM which is used for qualitative identification of six different types of asbestos fibers: Chrysotile, Amosite, Crocidolite, Anthophyllite, Tremolite, and Actinolite. The method requires the laboratory to take a portion of the sample and treat it with oil having a specific refractive index. This prepared slide is then subjected to microscopic testing necessary to identify the asbestos type, as each type displays unique characteristics when subjected to these tests. Quantification of asbestos listed on the laboratory reports was determined by observing the material through a stereoscope and assigning a visual estimate.

5.5 Reporting of Analysis Results

The PLM method specifies that the asbestos content in a bulk sample shall be estimated and reported as a finite percentage (rounded to the nearest percent) within the range of 0 to 100. Minute quantities of asbestos in bulk samples may be reported as “trace” or less than one percent. The composition of the bulk sample is reported in percentages of asbestos and non-asbestos components.

5.6 Asbestos Assessment Findings

No samples collected contained detectable levels of asbestos, based on the PLM method.

The materials that were sampled are identified in **Table 1** below. Laboratory reports and chain of custody records are presented in **Appendix C**.

Table 1 – Summary of Materials Sampled for Asbestos

Bridge Structure (SFN 4304209) – LAK-MR 1992-0.951							
Sample Number	Material	Sample Location(s)	Percentage / Type of Asbestos	Approx. Quantity	Condition	Type	NESHAP Category
MR1992-1	Tan/grey concrete spacer material	Northeast of bridge concrete sidewall	ND	160 SF	Good	Misc.	NA
MR1992-2		East central bridge concrete sidewall	ND				
MR1992-3		Southwest of bridge concrete sidewall	ND				

Notes:

SF – Square Feet

Misc. – Miscellaneous

NA – Not Applicable

ND – None Detected to < 1% ACM

6.0 CONCLUSIONS AND RECOMMENDATIONS

Results of laboratory analysis indicated that asbestos was not detected in any of the other samples.

Prior to renovation activities, it is recommended that the *Notification of Demolition and Renovation /Abatement* form be submitted to Ohio EPA, which has been started and is included in **Appendix D**.

7.0 DISCLAIMER

The content presented in this survey report is based on data collected during the Survey and information obtained through the review of pertinent regulations, requirements, guidelines, and commonly followed industry standards, and information provided (if any) by the Client, property owner, agents, and representatives.

The work has been conducted in an objective and unbiased manner and in accordance with generally accepted professional practice for this type of work. TRC believes the data and analysis to be accurate and relevant, but cannot accept responsibility for the accuracy or completeness of available documentation or possible withholding of information by other parties. Structures or components thereof surveyed may contain hidden surfaces or materials requiring destructive access to survey and/or sample. It is possible that additional materials could be discovered during destructive, demolition/renovation, and/or excavation activities. In the event additional materials (not identified herein) are discovered during such activities, an additional survey and sampling may be necessary.

This survey report is designed to aid the property owner, architect, construction manager, general contractor, and asbestos abatement contractor in locating ACM. This report is not intended for and may not be utilized as a bidding document or as an abatement project specification document.

8.0 CERTIFICATION

TRC hereby certifies that the services conducted and described in this document and the findings resulting from those services reported herein have been provided in a manner consistent with the current standards of the profession, and to the best of our knowledge, comply with applicable federal, state, and local statutes, regulations, and ordinances. If there are any questions concerning information contained in this report, please contact the undersigned at (216) 344-3072.

Sincerely,

TRC Environmental Corporation

Report Prepared By:

Reviewed by:



Ryan Pulliam

Asbestos Inspector (ES35048)



Keaton A. Henry, C.P., P.G.

Project Manager (ES36367)

APPENDIX A

CONSULTANT CERTIFICATIONS



**Environmental
Protection
Agency**

EPA.Ohio.gov

Mike DeWine, Governor Jim Tressel, Lt. Governor John Logue, Director

4/21/2026

Ryan Pulliam
TRC
1382 W. 9th St., Suite 400
Cleveland, OH 44113

RE: Evaluation Specialist
 Certification Number: ES35048
 Expiration Date: 4/21/2027

Dear Ryan Pulliam:

This letter and enclosed certification card approves your request to be certified as an asbestos Evaluation Specialist. You must present your card upon request at any project site while performing duties. Copies of cards are not acceptable as proof of certification.

This certification may be revoked by the Director of the Ohio Environmental Protection Agency (EPA) for violation of any of the requirements of 3745-22 or 3745-20 of the Ohio Administrative Code.

If you have any questions, please contact the Asbestos Program at 614-644-0226 or by email at asbestoslicensing@epa.ohio.gov.

Sincerely,

Brandon M. Schwendeman

Brandon Schwendeman
Manager, Business Operations Support Section
Ohio EPA - Division of Air Pollution Control



APPENDIX B

SITE FIGURE

Coordinate System: NAD 1983 StatePlane Ohio North FIPS 3401 Feet; Map Rotation: 0
Saved By: MOPEL on 9/10/2026, 11:11:18 AM; File Path: T:\H-PROJECTS\Ohio_DOT\682849_LAK-Bridges\2-APRX\Sampling.aprx; Layout Name: Fig01_Sampling1992

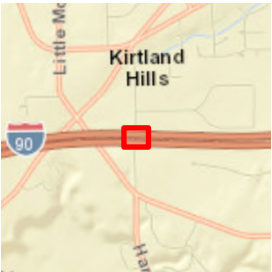


● ASBESTOSSAMPLELOCATION



1:600
1" = 50'

0 50 100
FEET



PROJECT: **LAK-MR 1992-0.951 (SFN 4304209)**
HART ROAD OVER I-90 IN WILLOUGHBY
LAKE COUNTY, OH

TITLE: **ASBESTOS SAMPLE LOCATION MAP**

DRAWN BY: M. OPEL	PROJ. NO.: 682849
CHECKED BY: R. PULLIAM	FIGURE 1
APPROVED BY: R. PULLIAM	
DATE: SEPTEMBER 2026	



1382 WEST NINTH STREET
SUITE 400
CLEVELAND, OH 44113
PHONE: 216-344-3072

FILE: Sampling.aprx

APPENDIX C

LABORATORY REPORTS, CHAIN-OF-CUSTODY FORMS



BULK ASBESTOS ANALYSIS REPORT

CLIENT: Ohio Department of Transportation

Lab Log #: 0070457

Project #: 682849.0008.0001

Date Received: 09/09/2026

Date Analyzed: 09/10/2026

Site: LAK-90-6.99 (Bridge LAK-MR 1992-0.591)

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Sample Location	Homogeneous Material Description	Other Matrix Materials	Asbestos %	Asbestos Type
MR1992-1	East side of concrete	Grey concrete	- - -	ND	None
MR1992-2	West side of concrete	Grey concrete	- - -	ND	None
MR1992-3	West side of concrete	Grey concrete	- - -	ND	None

ND - asbestos was not detected

Trace - asbestos was observed at level of 1% or less - This is the reporting limit

NA/PS - Not Analyzed / Positive Stop

SNA - Sample Not Analyzed- See Chain of Custody for details

Notes: Asbestos-Containing Material (ACM) is any material containing more than 1% asbestos

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows 18/01A EPA -- 40 CFR Appendix E to subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples and 18/A03 EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 101424-01. TRC is accredited by the AIHA Laboratory Accreditation Programs AIHA LAP (ID: LAP-100122) in the Industrial Hygiene Program (IHLAP) for PLM. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

This report shall not be reproduced, except in full, without the written approval of TRC. This report must not be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report relates only to the items tested, as received by the laboratory.

Analyzed by: 
Kathleen Williamson, Laboratory Manager

Reviewed by: 
Najaat Bhura, Approved Signatory

Date Issued
09/10/2026

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0
RI #PLM00007 TX #300354
CO# AL-21772

AIHA LAP #100122
VT #An-000020
LA#05011

CT #PH-0426
VA #3333 000283
PA#68-03387

ME LB-0071
AZ #AZ0944
PHIL#ALL-461

MA #AA000052
HI #L-09-004

NY #10980 WV #000622
NV #CT00004 CA #2907
WA #C1071

TRC ENVIRONMENTAL CORPORATION
1382 W. 9th St., Suite 400
Cleveland, OH 44113
PHONE: (216) 344-3072
E-MAIL: rpulliam@trccompanies.com



ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

TRC ENVIRONMENTAL LABORATORY
21 GRIFFIN ROAD NORTH
WINDSOR, CT 06095
PHONE: (860) 298-9692

LAB ID #: 70457

PROJECT NUMBER		PROJECT NAME		PARAMETERS		TURNAROUND TIME					
682849.0000 Phase 8 Task 1		LAK-90-6.99 (Bridge LAK-MR 1992-0.591)				PLM:	8hr	☒	24hr	48hr	3day
SIGNATURE		INSPECTOR				TEM:	24hr		48hr	3day	5day
		Ryan Pulliam (ES35048)				MATERIAL					
FIELD SAMPLE NUMBER	DATE	TIME	TYPE		SAMPLE LOCATION						
			COMP	GRAB							
MB1992-1	9/8/26	NA		X	East side of concrete	X		X			Grey concrete spacing material
MB1992-2	↓	↓		↓	↓	↓		↓			↓
MR1993-3	↓	↓		↓	West side of concrete	↓		↓			

Relinquished by: (Signature) 	Date: 9/8/26	Received by: (Signature) 	9/9/26	Relinquished by: (Signature)	Date:	Received by: (Signature)
(Printed) Ryan Pulliam	Time: 1430	(Printed) William Williamson	1150	(Printed)	Time:	(Printed)
Remarks: Samples taken in OH				Condition of Samples: Acceptable: Yes ☒ No ☐ Comments:		Page 1 of 1

APPENDIX D

NOTIFICATION OF DEMOLITION AND

RENOVATIONS/ABATEMENT FORM



Notification of Demolition and Renovation/Abatement

Section 1: General Information

Division of Air Pollution Control

Work on projects cannot begin until 10 working days after a COMPLETE original notification form, **including payment**, is submitted to Ohio EPA. Instructions and a worksheet for fee calculation are available at epa.ohio.gov/asbestos. This form can be completed, and payment made, at ebiz.epa.ohio.gov. Questions? asbestos@epa.ohio.gov or (614) 466-0061.

Ohio EPA Use Only	Notification #:	Postmarked: / /	Received: / /	☐ Hand-Delivered
-------------------	-----------------	-----------------	---------------	---

1) Notification Information (Check all that apply)

☒ Original	☐ Revision # (count):	☐ Installation	☐ Emergency	☐ Annual	☐ Cancellation	Project County: Lake
☐ NESHAP Residential Exemption						

2) Owner, Asbestos Abatement Contractor, Billing and Fire Department Information

Revised? ☐

Owner		
Name: Ohio Department of Transportation - District 12		Is this a company? ☐ Yes ☒ No
Address: 400 E. William Street		Contact Person: Tom Sorge
City: Garfield Heights	State: OH	Zip: 44125
Email:	Phone: 216.584.2086	Fax:
Asbestos Abatement Contractor (if applicable)		
Name:	License #:	Expiration Date: / /
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Billing Contact (Entity paying for original notification)		
Is this contact associated with the ☒ Owner, ☐ Asbestos Abatement Contractor, or ☐ Demolition Contractor (if not installation)?		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Fire Department (if applicable)		
Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

3) Ohio Asbestos Hazard Evaluation Specialist and Evaluation Procedure

Revised? ☐

Evaluation Specialist: Jonathan Blackert	Certification #: ES35048	Expiration Date: 04 / 21 /2027
Procedure, including analytical methods, employed to detect the presence of and to estimate the quantity of regulated asbestos-containing material (RACM) and Category I and Category II non-friable asbestos-containing material: ☒ PLM ☐ Point Count ☐ TEM ☐ Other Method (Explain Below):		

4) Procedures to be followed should unexpected RACM be discovered (check all that apply)

Revised? ☐

☒ Stop work and keep wet	☐ Evacuate area	☒ Demarcate area	☒ Contact licensed abatement contractor
☐ Contact district office/local air authority			
☐ Other (Explain):			

5) Planned Demolition (check all that apply)

Revised? ☐

Describe demolition work to be performed and method(s) to be employed, including demolition techniques to be used: ☐ Implosion ☐ Fire Training ☐ Wet Methods ☐ Manual Demolition ☐ Mechanical Demolition ☐ Other (Explain):	
Description of affected facility components (include attachment if necessary):	

Mail completed form and payment to:
Ohio EPA, DAPC – Asbestos
P.O. Box 1049, Columbus, OH 43216-1049

Notification of Demolition and Renovation/Abatement

Section 1: General Information

Continued

6) Asbestos Description and Engineering Controls (if asbestos is being abated)

Revised? ☐

For the material listed in each project, describe the type(s) of ACM to be abated, engineering controls and work practices to be used to minimize emissions and ensure proper waste handling:

Type of ACM to be abated:	☐ Surfacing	☐ Mechanical	☐ Other		
Engineering Controls:	☐ Wet Methods	☐ Glove Bag	☐ NPE	☐ AFD	☐ Other:
Work Practices:	☐ Intact Removal	☐ Manual	☐ Mechanical	☐ Other:	

7) Asbestos Waste Transporter (if applicable)

Revised? ☐

Transporter #1 Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -
Transporter #2 Name (if applicable):		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

8) Asbestos Waste Disposal Site (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

9) Emergency Demolition (complete if you checked "Emergency" above and "Demolition" for any project)

Revised? ☐

A copy of the issued order, including the following information, **must be attached** to this notification.

Government Official Issuing Order:	Title:
Agency:	Authority of Order (Citation of Code):
Date of Order: / /	Demolition Date: / /

10) Emergency Renovation/Abatement (complete if you checked "Emergency" above and "Renovation/Abatement" for any project)

Revised? ☐

Date of Emergency: / /	Time of Emergency: : ☐ a.m. ☐ p.m.
Description of Sudden, Unexpected Event:	
Explanation of how the event caused unsafe conditions or equipment damage:	

11) Attestation

Revised? ☐

In accordance with Ohio Administrative Code rule 3745-20-03(A)(4)(p), I certify that at least one person trained as required by paragraph (B) of rule 3745-20-04 of the Administrative Code will supervise the stripping and removal described by this notification. I acknowledge that the submission of false or misleading statements is prohibited by law and I certify that facts contained in this notification are true, accurate, and complete.

Signature:	Date: / /
Name:	Title:
Organization:	



Notification of Demolition and Renovation/Abatement

Section 2: Project Address Specific Information

Division of Air Pollution Control

Please complete Section 2 for the address included with this notification. If the project is an "Installation" per OAC 3745-20, complete a separate Section 2 page for each address associated with this notification.

Ohio EPA Use Only Project ID #:

A. Facility Description

Revised? ☐

Building Name (if applicable): LAK-MR 1992-0951 (CFN 4304209)		Site Location (specific): 41.647878, -81.320368	
Address: Along Hart Road crossing over I-90			
City: Kirtland Hills		State: OH	Zip: 44060
Building Size (square feet):		No. of Floors:	Age: 64 years
Present Use: Bridge		Prior Use:	

B. Type of Operation (check all that apply)

Revised? ☐

☐ Demolition	☒ Renovation/Abatement – Type: ☐ Removal ☐ Repair ☐ Encapsulation ☐ Enclosure
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C. Asbestos Present (check one)

Revised? ☐

☐ Yes	☒ No	☐ No, previously abated	Year Abated:
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D. Approximate Amount of Asbestos-Containing Materials (complete table below and Section 1 #6 if asbestos is present)

Revised? ☐

	Material to be Removed			Material NOT to be Removed	
	RACM	Non-friable Asbestos-Containing Material		Non-friable Asbestos-Containing Material	
		Category I	Category II	Category I	Category II
Pipes (linear feet)					
Surface area on other facility components (ft²)					
Volume if length or area cannot be measured (ft³)					

E. Asbestos Abatement Schedule and Abatement Specialist (original notification is required 10 working days prior to the start of work)

Revised? ☐

Setup Date: / /		Abatement Date: / /		Complete Date: / /			
(Shift 1) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	
(Shift 2) Time start/end on site	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Abatement Specialist Name:			Certification #: AS			Expiration Date: / /	

F. Demolition Contractor (if applicable)

Revised? ☐

Name:		
Address:		Contact Person:
City:	State:	Zip: -
Email:	Phone: () -	Fax: () -

G. Demolition Schedule (original notification is required 10 working days prior to the start of work)

Revised? ☐

Start Date: / /	Complete Date: / /
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H. Project Hold

Revised? ☐

Asbestos Abatement Offsite/On Hold as of Date: / /	Asbestos Abatement On Site/Off Hold, Work Resume Date: / /
Demolition Offsite/On Hold as of Date: / /	Demolition On Site/Off Hold, Work Resume Date: / /

APPENDIX E
PHOTOGRAPHIC LOG

Photograph Log

Client Name: Ohio Department of Transportation District 12		Subject Property Location: LAK-MR 1992-0.951 (PID 116955) Bridge Structure (SFN 4304209) Hart Road over I-90	Project No.: 682849.0008.0001
Photo No. 1	Date September 8, 2026		
Description: View of LAK-MR 1992-0.951, facing south.			

Photo No. 2	Date September 8, 2026	
Description: View of LAK-MR 1992-0.951, facing north.		

Photograph Log

Client Name:		Subject Property Location:	Project No.:
Ohio Department of Transportation District 12		LAK-MR 1992-0.951 (PID 116955) Bridge Structure (SFN 4304209) Hart Road over I-90	682849.0008.0001
Photo No.	Date		
3	September 8, 2026		
Description: Underneath view of LAK-MR 1992-0.951, facing south.			

Photo No.	Date		
4	September 8, 2026		
Description: View of concrete spacing material on side walls (MR1992-1, MR1992-2, and MR1992-3), facing west.			