



HART ENVIRONMENTAL RESOURCES

262 Hedge Dr. Springfield, OH 45504 (937) 325-8777 (937) 324-0288 FAX

ASBESTOS INSPECTION REPORT

**2344 Cardinal Ave.
Dayton, OH 45414**



PREPARED FOR:

**Mr. Dennis Zimmer
Montgomery County Land Reutilization Corporation
City of Dayton
Building Services
Nuisance Abatement & Rehabilitation Supervisor
371 W. 2nd St., Room 324
Dayton, OH 45402
937-333-3982**

PREPARED BY:

**Lynda M. Hart
Asbestos Hazards Evaluation Specialist
Ohio #ES-32558
November 23, 2015**



HART ENVIRONMENTAL RESOURCES

262 Hedge Dr. Springfield, OH 45504 (937) 325-8777 (937) 324-0288 FAX

November 23, 2015

Mr. Dennis Zimmer
Montgomery County Land Reutilization Corporation
City of Dayton
Building Services
Nuisance Abatement & Rehabilitation Supervisor
371 W. 2nd St., Room 324
Dayton, OH 45402

Re: Asbestos Inspection
2344 Cardinal Ave.
Dayton, OH 45414

Dear Mr. Zimmer:

Hart Environmental Resources prepared this report, under contract with the Montgomery County Land Reutilization Corporation, Ohio, for the asbestos inspection conducted at 2344 Cardinal Ave., Dayton, OH. The inspection, conducted on November 16, 2015, was completed utilizing applicable Federal and Ohio State regulations pertaining to asbestos: Federal OSHA (29 CFR 1910.1001 and 29 CFR 1926.1101), EPA (40 CFR Part 61), and TSCA Title II AHERA/ASHARA (40 CFR Part 763) Asbestos Regulations. The findings in this report are consistent with accepted principles and practice established and prescribed by the EPA and AHERA.

All accessible areas of the home at 2344 Cardinal Ave. were inspected physically, functional space by functional space, and homogeneous area by homogeneous area to determine the presence of asbestos-containing materials. Core samples of friable and non-friable suspect asbestos-containing materials were collected. A site diagram, with the location of each sample, was made. The bulk samples were placed in zip-lock bags, sealed, and labeled with an identifying code. The samples, along with the chain-of-custody, were then submitted to the laboratory Environmental Hazards Services, Inc., to be analyzed for asbestos content.

The house is a one story structure, with a slab foundation. The house exterior is covered with aluminum siding, over wood lapping. The interior walls are covered with drywall. Six (6) wooden windows have been installed in the house. The gas forced air heating system is intact, with no ductwork wrap or seam tape present. An insulating furnace board, though, was present. The pitched roof is covered with asphalt shingles.

Hart Environmental Resources identified four (4) suspect asbestos-containing materials in the accessible areas of the structure.

Analytical Results

HER Sample # Lab Sample #	Amount	Layers	Description/Sample Location	Condition	PLM Result (% Asbestos)
2344C-1 15-11-02452-001	24 sq ft.	1	Furnace Board, Kitchen, Ceiling, Homogeneous	Friable	45% Chrysotile Asbestos Present
2344C-2 15-11-02452-002 15-11-02512-001	-	3	Drywall/J.C. (Joint Compound), Bedroom 2, Wall D, Inhomogeneous	Non-friable	Trace <1% Chrysotile Asbestos Present (PC=1.25%)
2344C-2 15-11-02452-002 15-11-02512-002	-	3	Drywall/J.C. (Composite), Bedroom 2, Wall D, Inhomogeneous	Non-friable	Trace <1% Chrysotile Asbestos Present (PC=0.50%)
2344C-3 15-11-02452-003	-	3	Drywall/J.C., Bedroom 1, Wall B, Inhomogeneous	Non-friable	None Detected
2344C-4 15-11-02452-004	-	3	Drywall/J.C., Living Room, Wall C, Inhomogeneous	Non-friable	None Detected
2344C-5 15-11-02452-005 15-11-02512-003	6 ea	1	Window Glazing, Living Room, Wall D, Homogeneous	Friable	2% Chrysotile Asbestos Present (PC=1.25%)
2344C-6 15-11-02452-006 15-11-02512-004	See above	1	Window Glazing, Bedroom 1, Wall B, Homogeneous	Friable	2% Chrysotile Asbestos Present (PC=1.50%)
2344C-7 15-11-02452-007	-	2	Roof Shingle, Exterior, Inhomogeneous	Non-friable	None Detected
2344C-8 15-11-02452-008	-	2	Roof Shingle, Exterior, Inhomogeneous	Non-friable	None Detected

Discussion and Recommendations

Eight (8) bulk samples of suspect asbestos-containing materials were collected in the accessible areas of the structure. Per current EPA regulations, Category I Non-Friable materials, including bituminous roofing materials, resilient floor coverings and gaskets do not need to be removed prior to the demolition of homes, as long as it does not become friable during the demolition process.

The analytical results found the following item to contain greater than 1% asbestos fibers:

- Furnace Board, Kitchen
- Window Glazing, Living Room
- Window Glazing, Bedroom 1

Confirmed or assumed asbestos-containing materials, which will be disturbed during demolition activities, are regulated under current Federal and State regulations. Hart Environmental Resources recommends the removal of these materials by a licensed asbestos abatement contractor. It is also strongly recommended that the specifications for the removal program be developed by a licensed Asbestos Project Designer to ensure that all regulatory requirements are satisfied. The work should be properly documented in the event of future litigation.

An Ohio EPA Notification of Demolition and Renovation form must be completed and submitted to the Regional Air Pollution Control Agency (RAPCA) at least ten working days prior to the commencement of any abatement or demolition activity. The amount, type and

condition of the asbestos-containing materials found in this inspection, as well as the materials assumed to be asbestos-containing materials, must be noted on the form. The name and certification number of the asbestos inspector, Lynda M. Hart, #ES32558, must be included. Hart Environmental Resources estimates the cost associated with the removal of the confirmed asbestos-containing materials to be as follows:

<u>Material</u>	<u>Est. Qty.</u>	<u>Est. Unit Cost</u>	<u>Est. Cost</u>
Furnace Board	24 sq ft.	\$ 20/sq ft.	\$ 480
Window Glazing	6 ea	\$ 25/ea	\$ 150
Total			\$ 630

Estimated costs are based on local, current prevailing wages and do not include costs for planning, permitting, specification development, contractor oversight or air monitoring.

If any additional suspect materials are encountered during the demolition process, the material should be left undisturbed and kept intact until they can be inspected and sampled by a licensed Asbestos Abatement Evaluation Specialist. Hart Environmental Resources will be happy to return to the site if additional suspect materials are encountered. The other options, is to assume that the material is asbestos-containing and have it abated as such.

This report, and the supporting data, findings, conclusions, opinions, and the recommendations it contains, represents the result of Hart Environmental Resources' efforts on behalf of the Montgomery County Land Reutilization Corporation. This report is not an asbestos abatement specification and should not be used for specifying removal methods or techniques. The results, assessments, conclusions and recommendations stated in this report are factually representative of the conditions and circumstances observed at this location on the date of the inspection. We cannot assume responsibility for any change in conditions or circumstances that occurred after the inspection. This report and its findings and recommendations, if implemented by the Montgomery County Land Reutilization Corporation, should not be construed as an assurance or implied warranty for the continuing safety, performance, or cost-effectiveness of any equipment, product, system, facility, procedure, or policy discussed or recommended herein.

Recommendations are based on the professional judgment of the inspector and the results of the samples collected and analyzed. Hart Environmental Resources makes no warranty, expressed or implied, and accepts no liability for the presence or absence of asbestos or other hazardous materials in or on building products, materials or areas. Hart Environmental Resources assumes no responsibility for the cost of repairing, replacing or removing any undiscovered or unreported condition or defect, or any future condition or defect.

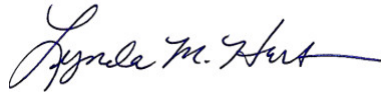
Based on the findings of this survey, Hart Environmental Resources recommends the following:

- **Maintain copies of the information from this asbestos inspection at the site during the demolition operations.** This information should also be maintained by the Montgomery County Land Reutilization Corporation in an off-site file to document property completion of the inspection prior to the building demolition.

- **Asbestos-containing materials should not be disturbed or removed except by properly trained, certified and equipped personnel in accordance with the requirements of an asbestos abatement specification developed for this project.**
- **Air monitoring should be performed during any work that disturbs the integrity of identified asbestos-containing materials, in accordance with the OSHA regulations.** Air monitoring should be performed by a certified asbestos hazards evaluation specialist or a certified industrial hygienist.
- **An Ohio EPA Notification of Demolition and Renovation form should be completed and submitted to the Regional Air Pollution Control Agency (RAPCA) at least ten working days prior to the start of any abatement or demolition activity.** This form should list the amount of Category I Non-Friable materials, which will not be removed, as well as the amount of regulated asbestos-containing materials, which will be removed prior to the demolition activity.

If you have any questions or concerns with this inspection please do not hesitate to contact me.

Sincerely,



Lynda M. Hart, REM

President

Registered Environmental Manager, #7928

Asbestos Hazards Evaluation Specialist, State of Ohio, #ES32558

Attachments

- | | |
|--------------|----------------------------|
| Attachment 1 | Site Location Map |
| Attachment 2 | Site Inspection Work Sheet |
| Attachment 3 | Photographs |
| Attachment 4 | Laboratory Results |
| Attachment 5 | Work Order |

ATTACHMENT 1
SITE LOCATION MAP

ATTACHMENT 2

SITE INSPECTION WORK SHEET

ATTACHMENT 3
PHOTOGRAPHS



Photo 1: Furnace Board (2344C-1) Kitchen, Ceiling.
45% Chrysotile Asbestos Detected.



Photo 2: Drywall/J.C. (2344C-3) Bedroom 1, Wall B.
No Asbestos Detected.



Photo 3: Drywall/J.C. (2344C-4) Living Room, Wall C.
No Asbestos Detected.



Photo 4: Window Glazing (2344C-5) Living Room,
Wall D. 2% Chrysotile Asbestos Detected (PC=1.25%).



Photo 5: Window Glazing (2344C-6) Bedroom 1, Wall
B. 2% Chrysotile Asbestos Detected (PC=1.25%).

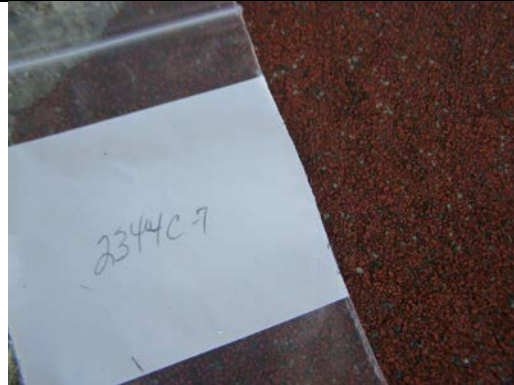
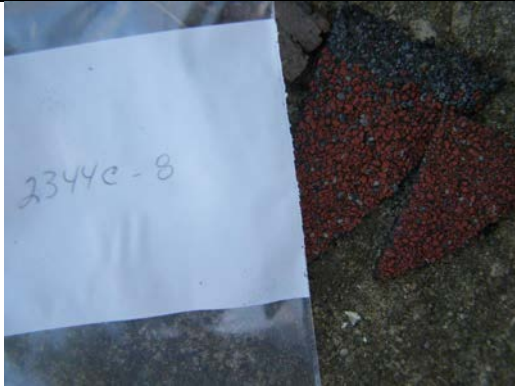


Photo 6: Roof Shingle (2344C-7) Exterior.
No Asbestos Detected.



**Photo 7: Roof Shingle (2344C-8) Exterior.
No Asbestos Detected.**

ATTACHMENT 4

LAB RESULTS



Asbestos Bulk Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Report Number: 15-11-02452

Client: Hart Environmental Resources
262 Hedge Drive
Springfield, OH 45504

Received Date: 11/19/2015
Analyzed Date: 11/19/2015
Reported Date: 11/20/2015

Project/Test Address: City of Dayton; 2344 Cardinal

Client Number:
36-5620

Fax Number:
937-324-0288

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
15-11-02452-001	2344C-1		White Fibrous; Homogeneous	45% Chrysotile	55% Non-Fibrous
				Total Asbestos: 45%	
15-11-02452-002	2344C-2		White Powdery; Cream Chalky; Brown Fibrous; Inhomogeneous	Trace <1% Chrysotile	10% Cellulose 90% Non-Fibrous
				Total Asbestos: Trace <1%	
2% Chrysotile present in the cream joint compound-like material.					
15-11-02452-003	2344C-3		White Powdery; Chalky; Brown Fibrous; Inhomogeneous	NAD	12% Cellulose 88% Non-Fibrous
15-11-02452-004	2344C-4		White Powdery; Chalky; Brown Fibrous; Inhomogeneous	NAD	15% Cellulose 85% Non-Fibrous
15-11-02452-005	2344C-5		White Brittle Chalky; Homogeneous	2% Chrysotile	98% Non-Fibrous
				Total Asbestos: 2%	

Environmental Hazards Services, L.L.C

Client Number: 36-5620
 Project/Test Address: City of Dayton; 2344 Cardinal

Report Number: 15-11-02452

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
15-11-02452-006	2344C-6		White Brittle Chalky; Homogeneous	2% Chrysotile	98% Non-Fibrous
Total Asbestos: 2%					
15-11-02452-007	2344C-7		Black Tar; Red Aggregate; Fibrous; Inhomogeneous	NAD	15% Fibrous Glass 85% Non-Fibrous
15-11-02452-008	2344C-8		Black Tar; Red Aggregate; Inhomogeneous	NAD	10% Fibrous Glass 90% Non-Fibrous

QC Sample: 79-M22012-1
 QC Blank: SRM 1866 Fiberglass
 Reporting Limit: 1% Asbestos
 Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020
 Analyst: Katherine Charles Harris

Reviewed By Authorized Signatory:



Tasha Eaddy
 QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected



Analyst Signature Page

Environmental Hazards Services, L.L.C.

7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Report Number: 15-11-02452

Client: Hart Environmental Resources
262 Hedge Drive
Springfield, OH 45504

Received Date: 11/19/2015

Analyzed Date: 11/19/2015

Reported Date: 11/20/2015

Client Number: 36-5620

Project/Test Address: City of Dayton; 2344 Cardinal

Analyst(s)

Katherine Charles Harris

Katherine Charles Harris

8 PLM

ENVIRONMENTAL HAZARDS SERVICES, L.L.C.

7469 Whitepine Rd., Richmond, VA 23237 (804) 275-4788 (804) 275-4907 FAX

CHAIN OF CUSTODY FORM

Company Name: Hart Environmental Resources
 Address: 262 Hedge Dr. Springfield, OH 45504
 City, State, Zip: Springfield, OH 45504
 EHS Client Acct. #: 36-5620 D
 Phone #: (937) 325-8777 Fax #: (937) 324-0288
 E-mail: hartenv@woh.rr.com

Date: 11/16/15
 Contact Name: Lynda Hart
 Sampler Name: Lynda Hart
 Project #: Cirtac Dayton - 2344 CARDINAL
 1 Day TAT
 Point count samples with [redacted] asbestos

Sample Number	Sample Date & Time	Asbestos					Lead						Other Metals (Specify metals below)			Indoor Air Quality				Air Volume (L) OR Wipe Area (INCHES)	Comments			
		Bulk ID by PLM	(PCM) Fiber Count	PLM Point Count	PLM Gravimetric	TEM AHERA (Air)	TEM Chatfield (Bulk)	Air	Paint (%)	Paint (PPM)	Paint (mg/cm2)	Soil	Wipe* (See Note)	TCLP (Pb)	Waste Water	TCLP RCRA 8	Welding Fume	Toxic Metal Profile	Biocassette			Slide	Surface Swab	Surface Tape
2344e-1	11/16/15	✓																						Furniture Broom - Kitchen
2344e-2	9:30am	✓																						Dormitory - Room 2 D
2344e-3		✓																						Dormitory - Room 1 B
2344e-4		✓																						Dormitory - Living C
2344e-5		✓																						Window Gazings - Living D
2344e-6		✓																						Window Gazings - Room 1 B
2344e-7		✓																						Roof Structure
2344e-8		✓																						Roof Structure

Released by: Lynda M. Hart
 Signature: [Signature]
 Received by: Sarah Chambers
 Signature: [Signature]
 Date/Time: 11/16/15
 Date/Time: 11/19/15

15-11-02452



Due Date: 11/20/2015 (Friday)
 AE
 [Signature]



Asbestos 400 Point Count Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Report Number: 15-11-02512

Client: Hart Environmental Resources
262 Hedge Drive
Springfield, OH 45504

Received Date: 11/19/2015
Analyzed Date: 11/19/2015
Reported Date: 11/23/2015

Project/Test Address: City of Dayton; 2344 Cardinal; EHS# 15-11-02452

Client Number:
36-5620

Fax Number:
937-324-0288

Laboratory Results

Lab Sample Number	Client Sample Number	Lab Gross Description	% Asbestos	Narrative ID
15-11-02512-001	2344C-2 Joint Compound	Cream Chalky	1.25 % Chrysotile	
15-11-02512-002	2344C-2 Composite	White Powdery; Cream Chalky; Brown Fibrous	0.50 % Chrysotile	
15-11-02512-003	2344C-5	White Brittle Chalky	1.25 % Chrysotile	
15-11-02512-004	2344C-6	White Brittle Chalky	1.50 % Chrysotile	

Reporting Limit: 0.25 % Asbestos

Method: EPA Method 600/R-93/116, EPA Method 600/M4-82-020

Analyst: Katherine Charles Harris

Reviewed By Authorized Signatory:

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714 NVLAP #101882-0 VELAP 460172.

LEGEND NAD = No Asbestos Detected



Analyst Signature Page

Environmental Hazards Services, L.L.C.

7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Report Number: 15-11-02512

Client: Hart Environmental Resources
262 Hedge Drive
Springfield, OH 45504

Received Date: 11/20/2015
Analyzed Date: 11/19/2015
Reported Date: 11/23/2015

Client Number: 36-5620

Project/Test Address: City of Dayton; 2344 Cardinal; EHS# 15-11-02452

Analyst(s)

Katherine Charles Harris

Katherine Charles Harris

ATTACHMENT 5

WORK ORDER



LAND BANK

NEIGHBORHOOD IMPROVEMENT PROGRAM

NOP #22

November 5, 2015

HART ENVIRONMENTAL, INC.
262 Hedge Drive
Springfield, OH 45504

Subject: NEIGHBORHOOD IMPROVEMENT PROGRAM-ASBESTOS SURVEYS
AND POST-ABATEMENT INSPECTIONS


This Transmittal is **Notice of Possession #22** on the Montgomery County Land Reutilization Corporation contract dated January 29, 2015 for the performance of Asbestos Surveys/Post-Abatement Inspections on the properties listed herein.

A Notice of Possession under this agreement hereby gives you possession of the entire parcel(s) including all structures, appurtenances and all contents for the purpose of conducting Asbestos Surveys and Post-Abatement Inspections.

Survey X Post-Abatement Inspection

Address	Lot#	Type
4319 Annapolis (Trotwood)	1280 Maplewood	One-story over slab
2344 Cardinal (Harrison Twp)	662, 663 Dixie Hts	One-story over crawl
159 Devonshire (Trotwood)	377 Drexel Pk	One-story over basement
203 Devonshire (Trotwood)	1 Drexel Pk Subd One-A	One-story over basement
4668 Drew (Trotwood)	271 Salem Vil 3	One-story over slab
5121 Gardendale (Trotwood)	655 Townview3 Sec 903 A	One-story over slab
5182 Gardendale (Trotwood)	621 Townview3 Sec1002A	One-story over slab
30 Greacian (Trotwood)	60 Hillside Home 2	One-story over slab
2205 Homesite (Harrison Twp)	14pt Home Site	Two-story over slab
6927 Polk (Harrison Twp)	63 Harrison Ter	One-story over slab

This Notice of Possession becomes effective at 12:01 a.m. Eastern Standard Time in Ohio on **November 6, 2015** which is established as the beginning date of survey activities on these parcels. **Furthermore, the time for completion is 13 working days, or November 25, 2015.**


Dennis Zimmer, Acting Supervisor
City of Dayton
Nuisance Abatement and
Rehabilitation Division