December 4, 2014

**Environmental Chemical Corporation** 1240 Bayshore Highway Burlingame, California 94010

Re:

Project monitoring during the removal of asbestos containing floor tile, transite panels and pipe insulation on the 1<sup>st</sup> and 2nd floors and exterior of building G1 at the Harshaw Chemical Company located at 1000 Harvard Avenue in Cleveland, Ohio (CTG #: 14377)

Dear

On November 19-24, 2014, an industrial hygienist and State of Ohio licensed asbestos hazard evaluation and abatement specialist associated with CTG Environmental, LLC (CTG), was on site representing Environmental Chemical Corporation (ECC) while performing asbestos project monitoring. These services were performed during the removal of asbestos-containing (ACM) floor tile, transite panels, and pipe insulation. These ACM materials were located in Building G1 in Rooms 2-1, 2-4, and on the exterior at the Harshaw Chemical Company located at 1000 Harvard Avenue in Cleveland, Ohio.

Diamond Services, Inc. (Diamond) was responsible for determining the location, quantity, and removal of ACM to be removed, which was predetermined by the site owner and identified to the abatement contractor. Duties performed by CTG as part of the project monitoring included area and final clearance air sampling, preliminary and final visual evaluations of the regulated areas, and oversight of the abatement contractor's work practices.

The abatement work occurred in rooms 2-1 and 2-4 located on the 1st and 2nd floors, and on the exterior of building G1. The floor tiles abated were located in rooms 2-1 and 2-4. The ACMs were being removed prior to the planned demolition of the building by mechanical means. Approximately 1,489 square feet of floor tile was abated. Approximately 160 square feet transite in building G1 was removed. Approximately 120 linear feet of pipe insulation was removed from the exterior of building G1. Signs saying "Asbestos Danger" and red caution tape were used to demarcate the regulated areas. There were no specifications for this project. Ohio Department of Health and Federal asbestos regulations were applicable. Diamond sent revised notifications to the regulatory agencies to account for changes in the scope of the project.

The air sampling was performed to determine fiber concentrations during and after the ACM removal. CTG collected ten (10) area and three (3) final air samples and one (1) field blank that were analyzed by phase contrast microscopy (PCM). The PCM air samples were collected by standard industrial hygiene practices. Air was drawn through a 25-millimeter (mm) diameter, 3 piece cassette with 50 mm extension cowl made from non-conductive, carbon-filled polypropylene. The filter was made from 0.8 micrometer porosity, mixed cellulose ester (MCE), supported by a cellulose pad fitted into the base section of the cassette. High and low volume air sampling pumps with variable flow adjusters were utilized for sample collection. The air sampling pumps were calibrated prior to and following the air sampling with a rotometer.

The PCM samples were analyzed using the National Institute of Occupational Safety and Health (NIOSH) Method 7400. of CTG, who has completed the NIOSH 582 equivalent class "Analyzing Airborne Fibers", performed the analysis.

The results of the air samples are provided on the air monitoring data sheets which are included as an attachment with this letter report and in the following table.

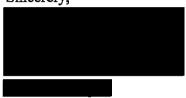
Sample Number	- Location	Туре	Fibers/Field	Result (f/cc)
377 112014 01	1 <sup>st</sup> floor s. floor tile area	Area	4/100	<0.008
377 112014 02	1 <sup>st</sup> floor w. floor tile area	Area	6/100	< 0.008
377 112014 03	Control point entrance	Area	7/100	< 0.008
377 112014 04	Field blank	Blank	0/100	NΑ
377 112114 01	Inside s. area floor tile 1 <sup>st</sup>	Final clearance	3/100	<0.008 (PASS)
377 112114 02 Inside e. area floor tile 1 <sup>st</sup>		Final clearance	4/100	<0.008 (PASS)
377 112114 03	Inside w. area floor tile Ist	Final clearance	4/100	<0.008 (PASS)
377 112114 04	Field blank	Blank	0/100	NΑ
377 112114 05	South exterior G1 SE of east side	Area	3/100	<0.008
377 112114 06	112114 06 East exterior G1 N of NE side		3/100	<0.008
377 112114 07	East exterior G1 @ truck scales SW	Area	4/100	<0.008
377 112414 01	G1 exterior @ trailer n. of scales	Area	4/100	<0.008
377 112414 02	G1 exterior east wall, fire escape	Area	5/100	<0.008
377 112414 03	G1 exterior, s. fence	Area	3/100	<0.008
377 112414 04	Field blank	Blank	0/100	N A
377 112414 05	G1 exterior @ s. fence, e. side	Area	3/100	<0.008

### Harshaw Chemical Company 1000 Harvard Avenue, Cleveland, Ohio

After Diamond indicated that gross removal and fine cleaning within the regulated areas were completed, CTG performed a final visual evaluation. CTG visually evaluated the areas to identify dust and debris remaining on the walls, floors and other associated surfaces and observed them to be acceptable. CTG performed a final clearance air testing in the regulated area inside building G1 where the floor tile had been removed. The final air results were below the regulatory limit of 0.01 fibers/cc.

Enclosed, please find copies of the air monitoring data sheets, final abatement checklists, field notes, and the asbestos inspector Ohio license. If you should have any questions regarding this letter report, please contact our office.

Sincerely,



President

Enclosures



## CTG Environmental, LLC.

Professional Consultants

	DATE: // /9 (4
	SITE: HARShaw Chemical 1000 HARDAR
	CLIENT: ECC
	CONSULTANT
	CTG PROJECT MANAGER:
DESCRIPTION OF WORK:	JOB NUMBER: 14377  Removing Floor tile, pipe insulations,  TRANSITE.
TIME	GENERAL OBSERVATIONS
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Radio	Igical Safety Meeting.
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	top goes to get make Supplies.
eteafl	ea
100 P Mare	supplies delivered to Site.
Diamond	mer are getting tot tests.
145 ECC IS	doing safety checks on
Digmand	s equipernant.
245 V	Diamond did JLG Trawing.
300	
	1
PAGE 1 OF	SIGNED:

# CIG Environmental, LLC.



f/cc | Pump ID | Remarks Total # of Samples 6/100 2.00/ Signature Client: EC-Location: HARSHAW CHEMICAL HARWARD 7/100 0.008 630 41100 Co olloo NA Fibers/ Contractor. PIAMOND SERVICES fields Volume (liters) 009 600 Total Time (min) 300 300 Industrial Hygienist Client: TOO Stop Time/ 2007 002 flow 280 B 7.0 2,0 Start Time/ 90% 645 900 ¶ow 0 At Control point Entrance SIDE of Buildus 15t Floor South SIDE PROOR the Field Sample Location 0 0 Sample D 0 377 AS Type SS S 1120 14h Number [ ] Z PC] [ Sample CC

FINSIDE WORK AREA O-OUTSIDE WORK AREA B-BLANK

			д	
COMMENTS PCM	MCE	0.8.7		

age of [

FC-FINAL CLEARANCE (REVISED 5/01) PS-PERSONAL AM-AMBIENT



# CTG Environmental, LLC.

Professional Consultants

	DATE: 11 >0 14.
	SITE: Harshaw Chemical 1000 Harvas
	CLIENT: ECC A
	CONSULTANT
	CTG PROJECT MANAGER:
DESCRIPTION OF WORK:	JOB NUMBER: 14377 Removing Floor file in Bldg 61 Wart.
TIME	GENERAL OBSERVATIONS
700 AM @	site. Openand has 3 mer.
L.	un for Hazmat. Safety Meeting.
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ESCORT +	
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~ · · · ~	-100R +1/e 1/ (5)
- T	Activity.
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2 MEN WIT PU	+ IN gaylords on pallets.
	is are working in a different part
of 61.	
Pump	s off
PAGE 1 OF _	SIGNED:

# CIG Environmental, LLC.

Sample Туре

Number Sample

Location: HARS HAW ChemICO

Total # of Samples

Contractor: Dlans and Services

	Pump ID Remarks	-64	, To
Signature	f/cc Pur	4 600.0	8
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	Volume (liters)	009	009
	Total Time (min)	9	09
Industrial Hygienist	Stop Time/ flow	1100	1.00
Industri	Start Time/ flow	1000	1000
	Sample Location	instee 5 apea of floor the 15t	125 10 E . apped of flows tile 15t

212

27

/000/ 方|

,				
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01/0.01	0	90h 9.2	7 /	0-2
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(1211/13	776 1121144	277 1101145	777 1711/46	57.6 CH11611

र 0 COMMENTS

FINSIDE WORK AREA O-OUTSIDE WORK AREA B-BLANK

AS-AREA PS-PERSONAL FC-FINAL CLEARANCE (REVISED 5/01) AM-AMBIENT

Page 1 of 1



# CTG Environmental, LLC FINAL ABATEMENT CHECK LIST

Page 1 of 2

	Performing Abatement	amand	Service	ا ک	NC	
ctor	/Signature					
mpa	nied by	00	·T	itle \		
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		100	- 1000	am		
٧	ISUAL INSPECTION OF WORK AREA					
i d	he following areas have been wurt or debris:	et cleaned and/o	r HEPA vacı	umed an	d appear to o	contain no residual
_	dot of debris.					
W	ORK SITE INSPECTION					
					lot	Problems
	<u>,</u> .		Acceptabl			countered/Comments
	1. Floors		Þ	• •		
	2. Walls		Þ	Ĺ		
	3. Windows ledges			<b>_</b>	3	
4	4. Pipes a. Vertical				-	
	b. Horizontal				-	
	c. Pipe Hangers			Ε		
5	5. Ventilation Equipment			<del>[</del>		<u> </u>
	3. Ducts		. 0	<b>E</b>		
	. Registers			<u>•</u>		<u> </u>
	. Lights			<u> </u>	<u> </u>	
9	. Conduit and wires		П	el El	· —	<del></del>
1	0. Sprinkler heads			可可可	• ——	
	1. Fire alarms			. []	<i>y</i> *	
	2. Electrical panels and boxes			- ·		
	3. All other horizontal surfaces		+⊟		· · · · ·	
	4. All other vertical surfaces		<b>†</b> ₽		· · · · · · · · · · · · · · · · · · ·	
18	5. Removal equipment remaining	j in work area		<del>- 13</del>		
10	<ol><li>Areas adjacent to work site ba</li></ol>	rrier	4			
EMC	CAPSULATION		4.1			
CINU	SAFSULATION					
1.	Has encapsulant been used?	<b>—</b>	oo <i>9</i>			
••	rias choapatiant peen ased t	υу	es -Eno			

C.



# CTG Environmental, LLC

Page 2 of 2

D.	FINAL AIR SAMPLING		•	•
	1. Sample I.D. number(s) 377121	141 - 7	3771121144	
	2. Were samples analyzed on site? ☐ y			
	3. If yes, person performing analysis		Title   <del>   </del>	
	4. Was a blank submitted? ∠ yes ☐ n	0		
	5. Is electron microscopy required?	es 🗷 no		
	6. What is the specified final clearance level	(f/cc)?	60.01	
	7. Were HEPA ventilation units run during the	e taking of fin	al air samples? 🛭 🗎 yes	-₽rno
	8. Were any other aggressive sampling techn	niques used?	□ yes Æ no	
	Describe			
E.	RESULTS OF VISUAL INSPECTION			
	The work area was found to be constable for			
	The work area was found to be acceptably fre		•	s □ no
	Inspector			
	Date 112114	Time	1000 Am	
F.	RESULTS OF AIR TEST(S)			
	The results of final air samples		Sample I.D.	Results (f/cc)
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			3771121142	40.008
			3 <u>7711211</u> 43	<u> </u>
			377421144	blank
			7771111	<u> </u>
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	Has the work area been released?	□ no		
	Notification given to		Title Superc	NSOR
	Date and time of notification 1 2	<u> </u>	_ Title <u>Superce</u> 2 pm	
	Microscopist		Signature	
			•	



## CTG Environmental, LLC.

Professional Consultants

	DATE: (121 [4
	SITE: HARSHAW CHEMICAL 1000 HARL
	CLIENT: ECC AVE
	CONSULTANT
	CTG PROJECT MANAGER:
DESCRIPTION OF WORK:	JOB NUMBER: 14377  Removing Floor Tile, Transite, 2 pipe insulation. IN 61.
TIME	GENERAL OBSERVATIONS
Zorg AM @.	SITE. Diamond has 3 Mer.
5XPETY	Meeting.
730 A 2 DIG	mand Men putting bags in gaylords. These Remain for Radiation
	for Now. 26° F Temperature
	gs wto gaylords in 61.
930 PO VISHA	T - /n -
1000 Begn	Are testing; calibrate, start pumps.
1100 Calibre	
00	PM WORK
100 PM	PASSES - GI
<u>Ulamond</u>	dong whap Ecut + glavebags ON
Egst sile of	GI, exterior. Using JLG.
500 NOROW NO	SHE OR TRANSITE
430 EXI	
PAGE 1 OF	SIGNED:

# CIG Environmental, LLC.



14222 Job# Client: FCC

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75.77	11 24 19	5= 1+ b =		Remarks					A The second sec		
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	LIMESTAWN STRAIGH OF	d 5e		Volume (liters)	022	022	229	0	081		
11/1/1/	A HW	Dlamand		Total Time (min)	360	360	360	٥	48°0		
<b>"</b> [			Hygi	Stop Time/ flow	5000	200	0.1	0	430		
	Location:	Contractor:	Industria	Start Time/ flow		000	000	0	2000		
				Sample Location	a Trailed Ninkes	E. Wall	@ 5. feva	Fuld Brank	\$ GA exterior		
				Sample Sar Type	0	0	500	1 8 FC	10		
	t			υ <u>μ</u>		-	<u>u</u>	4 676 1124144	37 CTS		

PCM	/h CE	0.8	
COMMENTS			

Page ↓of ↓

AS-AREA PS-PERSONAL FC-FINAL CLEARANCE (REVISED 5/01) AM-AMBIENT

I-INSIDE WORK AREA O-OUTSIDE WORK AREA B-BLANK



# CTG Environmental, LLC FINAL ABATEMENT CHECK LIST

Page 1 of 2

	npany Performing Abatement () () () () () () () () () () () () ()	nd Se	evice.5	<u>.</u>		
Title			۲,			<u> </u>
	ompanied by No one		Title			
щ	e of Inspection Start/Stop	300 PN	<u>n</u>			
	VISUAL INSPECTION OF WORK AREA					
-	Manual Editor of World Mich					
	The following areas have been wet cleaned	d and/or HEF	A vacuum	ed and appea	ır to contain ni	residual
	dust or debris:				•	
	WORK SITE INSPECTION					
	HOIST OFFE MADE ESTICAT			Not	Probl	
		Acc	eptable	Applicable	Probl Encountered	
	1. Floors			<b>/</b>		Comments
	2. Walls					
	3. Windows ledges			<u> </u>		
	Pipes     a. Vertical		_			
	b. Horizontal		4			
	c. Pipe Hangers					
	5. Ventilation Equipment			- <del></del>	· · · · · · · · · · · · · · · · · · ·	<u> </u>
	6. Ducts					
	7. Registers			<u> </u>		<del></del>
	8. Lights		<u> </u>			
	9. Conduit and wires					
	10. Sprinkler heads					
	11. Fire alarms		0	<u> </u>	<u> </u>	
	12. Electrical panels and boxes 13. All other horizontal surfaces		<u>.</u>		·	
	14. All other vertical surfaces		<del></del>		<del> </del>	
	15. Removal equipment remaining in work a					
	16. Areas adjacent to work site barrier		<b>-</b>			***
	EMCARCIL ATION					
	ENCAPSULATION					
	1. Has encapsulant been used?	□ yes ∠	r no			
	Name of encapsulant used		110			



# CTG Environmental, LLC

Page 2 of 2

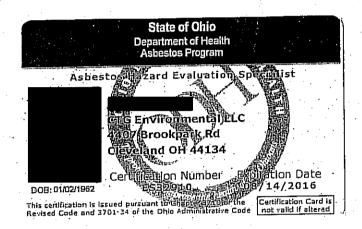
D.	FINAL AIR SAMPLING		$\mathcal{L}$	less bag	s used	•
	1. Sample I.D. num	ber(s)				
	2. Were samples a					
	3. If yes, person pe	rforming analy:	sis	·.	Title	
	4. Was a blank sub				•	
	5. Is electron micros	scopy required	? □ y	es 🛘 no		
					air samples? □ y∈	
	8. Were any other a			• .		
	Describe		4, 2			
E.	RESULTS OF VISUAL IN	SPECTION		,		
	The work area was fo	ound to be acc	eptably fre	e of residual du	ist and debris. 🖊 ye	es 🗆 no
	Inspector		<u> </u>	Signature		
	Date	1124	14	Time	400-430 p	m
F.	RESULTS OF AIR TEST(S				•	
• •	RESULTS OF AIR (EST(S	1)				
	The results of final air	samples	Clar	e bags	Committee LD	
					Sample I.D.	Results (f/cc)
			45	e9	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·
					<u> </u>	
	Are these results below					
	Has the work area bee			••	□ no .	
	Notification given to		II 700		_ Title Super	PLISOD
	Date and time of notific		100 V	m		CUPUR
	Microscopist				Signature	
	• • • •			·	_ Ognature	

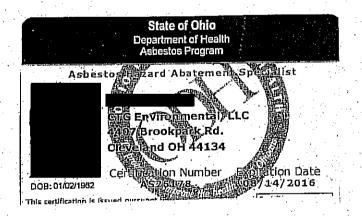


## CTG Environmental, LLC.

Professional Consultants

	DATE: 124 14 M
	SITE: HARSHAW CHEMICAL GI CLIENT: ECC AUG
	CTG PROJECT MANAGER:
DESCRIPTION OF WORK:	JOB NUMBER: 14377  ROMADUNG PIRO INSCRIPTION, EXTERIOR, ON GI VISUS GLOVEBOG & WRAP, CUT, IN a JLG. S.E.
TIME	GENERAL OBSERVATIONS
700 AM @ 3	5the. Diamond has 3 men.
SAFET	Y MEETING
730 Sof Up	SLG to Romare piping SE.
CARNERI	51, exterior, Near Roof.
J KONIW	day. Safety/Man Inspects 26.
8 pumps	ON IN appea.
835 Glovelbaggh	10-
Westing All	PPE. Danger tape around the JG.
10 MINDY.	Glavebagging TSI AgaIN.
11 Kernoving	151 @ fipe escape, AXE, 15 high,
	aylard boxes.
1145 Romoving	a tree escape, S.E.
1045	151 Right above escape Non w/ G.B.
200 FINISH	this deag.
220 Found	20 L.F. INSIDE, extra wark, use G.B.
430 turshe	J.
PAGE 1 OF	SIGNED:
	A





# Environmental Chemical Corporation Edison, New Jersey

Hazardous Materials Survey
Former Harshaw Chemical Company
1000 Harvard Avenue
Cleveland, Ohio

October 2014







October 14, 2014

Dear

TTL Project No. 11762.01

Environmental Chemical Corporation 110 Fieldcrest Avenue Suite 31 Edison, New Jersey 08837

### Hazardous Materials Survey Report Former Harshaw Chemical Company 1000 Harvard Avenue Cleveland, Ohio

-	us Materials Survey conducted for Environmental Chemical
• • • • • • • • • • • • • • • • • • • •	ove-referenced site is enclosed. TTL understands the purpose of
1 0 1	sbestos, lead based paint (LBP) and hazardous materials survey a
	demolition activities. This project was authorized by the TTL
Proposal No. 11762.01 dated Ju	ine 9, 2014.
	d opportunity to provide ECC with our consulting and testing questions or require additional information, please contact
Sincerely,	
TTL Associates, Inc.	
,	
Industrial Hygienist	Manager, Asbestos Services
maastiai riygiciiist	rianagei, risocsios pervices

### HAZARDOUS MATERIALS SURVEY REPORT FORMER HARSHAW CHEMICAL COMPANY 1000 HARVARD AVENUE CLEVELAND, OHIO

### **FOR**

### ENVIRONMENTAL CHEMICAL CORPORATION 110 FIELDCREST AVENUE SUITE 31 EDISON, NEW JERSEY 08837

### **SUBMITTED**

OCTOBER 14, 2014 TTL PROJECT NO. 11762.01

TTL ASSOCIATES, INC. 1915 NORTH 12<sup>TH</sup> STREET TOLEDO, OHIO 43604 (419) 324-2222 (419) 321-6252 FAX



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	Appendix B:	Asbestos Survey Summary Table
	Appendix C:	Asbestos Sampling Locations Map
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	Appendix E:	X-Ray Fluorescence Analyzer Data Table
	Appendix F:	Lead and Hazardous Materials Survey Maps
	Appendix G:	Hazardous Materials Survey Summary Table



### 1.0 EXECUTIVE SUMMARY

TTL Associates, Inc. (TTL) conducted an asbestos, Lead-Based Paint (LBP) and hazardous materials survey at the former Harshaw Chemical Company located at 1000 Harvard Avenue in Cleveland, Ohio. The purpose of the survey was to identify asbestos-containing materials (ACM) and LBP for demolition activities.

and and of TTL conducted the survey on September 24, 2014.

TTL's scope of work included the following:

- Surveying the facility for suspect ACM.
- Collection of suspect ACM bulk samples for analysis by Polarized Light Microscopy (PLM) to determine asbestos content.
- LBP inspection of selected areas by X-Ray Fluorescence (XRF) Analyzer, Serial Number 25587.

### 1.1 Asbestos Survey

TTL identified twenty (20) suspect ACM and collected and analyzed forty-four (44) bulk samples. The number of samples collected from each suspect ACM was determined by the quantity of material present. Laboratory analysis identified seven (7) materials as ACM.

### 1.2 <u>Lead-Based Paint Survey</u>

TTL identified lead based paint in the building using an XRF analyzer. There were thirty-four (34) surfaces identified to contain LBP above one (1) milligram per square centimeter (mg/cm<sup>2</sup>).

### 1.3 Hazardous Materials Survey

A survey of hazardous materials was also conducted by TTL during the NESHAP asbestos survey. The purpose of the limited hazardous materials survey was to identify building components that may contain suspect hazardous materials. TTL's scope of work did not include the collection and/or analysis of suspect hazardous materials. The observed site building components that were quantified during the hazardous materials survey included:

- Fluorescent Bulb Light Fixtures suspected of containing polychlorinated biphenyl (PCB) ballasts and/or fluorescent light bulbs containing mercury vapor
- Refrigeration Units suspected of containing chlorofluorocarbon refrigerants
- Mercury Vapor Light Bulbs
- Large Industrial Fuses suspected of containing silver and other metals



### 2.0 INTRODUCTION

TTL Associates, Inc. (TTL) conducted an asbestos, lead based paint (LBP) and hazardous materials of the former Harshaw Chemical Corporation located at 1000 Harvard Avenue in Cleveland, Ohio.

### 2.1 Project Purpose and Objectives

TTL conducted the survey in accessible areas of the site building to determine the presence of Asbestos-Containing Material (ACM), LBP and hazardous materials which may require removal prior to demolition and renovation activities.

### 2.2 Personnel

and of TTL conducted the survey. is a certified State of Ohio Department of Health Asbestos Hazard Evaluation Specialist. has successfully completed the Manufacturer's Training Course for the NITON Spectrum Analyzer and the Lead Inspector and Risk Assessor Training in accordance with the requirements of 40 CFR 745.225, (d) 1; HUD Guidelines for Lead Inspectors; LEAD POISONING PREVENTION CODE 845.28. Copies of their certifications are included in Appendix A.



### 3.0 ASBESTOS SURVEY

This section documents the results of the asbestos survey.

### 3.1 Homogenous Areas

Each accessible area was surveyed for suspect ACM and included the identification of suspect materials and the definition of homogeneous sampling areas (HSA), assessment of the condition of each material, estimation of the approximate quantity of the suspect ACM, and collection and analysis of representative bulk samples from each identified HSA. An HSA is defined as a material that exhibits similar physical characteristics (e.g., texture, surface color, and appearance) and was applied or installed during the same construction period (if known) as determined by TTL's inspection team utilizing professional judgment, experience, and historical building information.

### 3.2 Sampling and Analysis Methods

TTL provided a State of Ohio Department of Health Certified Asbestos Hazard Evaluation Specialist to conduct the inspection of the site building's interior components.

of TTL conducted the inspection. Refer to Appendix A for his certification.

Suspect ACM samples were collected using a coring device or other means, as appropriate, to collect a cross section of the suspect material. The samples were placed into clean, unused sealable bags and marked with a unique sample identification number. The samples of suspect ACM were transported to TTL and analyzed by Polarized Light Microscopy (PLM) using U.S. EPA Method 600/R-93/116. The EPA/600/R-93/116 "Method for the Determination of Asbestos in Bulk Building Materials" requires that all multiple, distinct layers must be analyzed individually. Sample analysis results are provided for each distinct layer of each sample submitted to the laboratory.

TTL's laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology. The laboratory accreditation number is included in the analytical report.

### 3.3 Asbestos Analytical Results

TTL identified twenty (20) suspect ACM, collected and analyzed forty-four (44) samples and fifty-nine (59) sample layers of suspect ACM. Seven (7) suspect materials were identified as ACM.



Table 1.0 below summarizes of the identified and assumed ACM including material description, material location and estimated quantities. Refer to Appendix B for a detailed list of all identified suspect materials, quantities and presence of asbestos. Asbestos sampling location maps are provided in Appendix C. A copy of the asbestos laboratory analytical report is presented in Appendix D.

Table 1.0 Identified and Assumed Asbestos-Containing Materials

rachtifica and Assamed Assestos-Containing Materials							
HSA No.	<b>Material Description</b>	Functional Area	Quantity				
08	9" x 9" Grey Floor Tile	Room 2-1	289 s.f.				
13	9" x 9" Grey Floor Tile and Associated Black Mastic	Room 2-4	1,200 s.f.				
15	White TSI Debris	High Bay 3 <sup>rd</sup> Floor in Wooden Crates	64 c.f.				
18	White Pipe Insulation	Exterior	20 1.f.				
21	Mud Pipe Fitting Insulation	Exterior	11 Fittings				
23	Transite Panels	By Elevators	100 s.f.				
26	Grey Transite Panels	Exterior	60 s.f.				

<sup>1.</sup>f.-linear feet



s.f.-square feet

### 4.0 LEAD-BASED PAINT SURVEY

This section documents the LBP survey results.

### 4.1 Survey

TTL provided a Lead Risk Assessor certified, in accordance with U.S. EPA and Housing and Urban Development's (HUD) Title X regulation, to conduct the inspection of the site buildings' interior components.

used a Niton X-Ray Fluorescence (XRF) Analyzer, Serial Number 25587, to conduct the inspection. A copy of the Niton XRF Analyzer data is included in Appendix E and site maps are contained in Appendix F. The Analyzer data table includes sample locations, condition of paint, and sample results. LBP is defined by U.S. EPA and HUD as containing more than 1.0 milligrams of lead per square centimeter (mg/cm²) of area or 0.5% by weight. OSHA does not define lead based paint based on content. Any detectable lead in paint makes it a lead paint for the purposes of complying with OSHA regulations to determine worker exposure.

The bolded data contained in Appendix E identifies paint that contains lead as defined by US EPA and HUD.

### 4.2 Survey Results

During the lead survey, TTL identified areas of painted surfaces of different color, substrate and component.

Table 2.0 summarizes the results for the lead hazards:

Table 2.0 Lead-Based Paint Surfaces Only Above 1 mg/m<sup>3</sup>

		J		8			
Reading No.	Component	Substrate	Side	Condition	Floor	Room	Result mg/cm <sup>2</sup>
24	WALL	BRICK	D	PEELING	FIRST	1	1.1
34	WINDOW	WOOD	C	POOR	FIRST	1	12.3
35	WINDOW	WOOD	A	POOR	FIRST	1	10.2
36	WINDOW	METAL	A	POOR	FIRST	1	1
38	COLUMN	METAL	A	POOR	FIRST	1	3.9
39	FLOOR	BRICK	A	POOR	FIRST	1	1
45	WALL	BRICK	В	POOR	FIRST	1	2.3
49	DOOR	METAL	A	POOR	FIRST	1	14
52	DOOR	WOOD	D	POOR	STAIRWELL	STAIRWELL	1.2
53	DOOR	METAL	В	POOR	STAIRWELL	STAIRWELL	9.3
66	FLOOR	CONCRETE	A	POOR	FIRST	3	1.4



Reading No.	Component	Substrate	Side	Condition	Floor	Room	Result mg/cm <sup>2</sup>
69	DOOR FRAME	WOOD	A	POOR	FIRST	3	4.8
76	WALL	BRICK	В	POOR	FIRST	4	4.9
77	WALL	BRICK	C	POOR	FIRST	4	3.2
79	DOOR FRAME	WOOD	В	POOR	FIRST	4	2.1
81	DOOR	WOOD	A	POOR	FIRST	4	2.5
84	DOOR	WOOD	A	FAIR	FIRST	4	1.5
85	DOOR	WOOD	C	FAIR	FIRST	5	8.2
98	COLUMN	WOOD	C	POOR	FIRST	6	6
99	WINDOW FRAME	METAL	D	POOR	FIRST	6	1
113	WALL	CONCRETE	D	POOR	FIRST	7	2.4
116	DOOR	WOOD	C	POOR	FIRST	7	2.4
117	HAND RAIL	METAL	A	POOR	FIRST	7	2.8
126	WALL	CONCRETE	C	POOR	FIRST	8	2.5
140	DOOR	WOOD	В	POOR	FIRST	10	1.2
154	DOOR	WOOD	A	FAIR	FIRST	12	1.1
155	DOOR	WOOD	A	FAIR	FIRST	12	1.2
156	WALL	CONCRETE	A	FAIR	FIRST	12	1.5
162	DOOR	WOOD	A	POOR	FIRST	13	1.6
163	DOOR	METAL	A	POOR	FIRST	13	2.4
171	DOOR	WOOD	D	POOR	MEZZANINE	14	2.3
172	DOOR	WOOD	В	POOR	MEZZANINE	15	2.4
175	DOOR	WOOD	D	POOR	MEZZANINE	15	1.9
186	DOOR	WOOD	D	POOR	FIRST	18	2.8
188	WALL	CONCRETE	C	POOR	FIRST	18	6.5
193	COLUMN	METAL	В	POOR	FIRST	19	4.5
194	COLUMN	METAL	В	POOR	FIRST	19	8.6
199	COLUMN	METAL	A	POOR	SECOND	20	3.8
202	DOOR	METAL	В	POOR	THIRD	21	4.2
203	COLUMN	METAL	В	POOR	THIRD	21	6.2
209	COLUMN	METAL	A	POOR	SECOND	22	2.8
223	WALL	CONCRETE	В	POOR	SECOND	24	4.6
226	WALL	CONCRETE	D	POOR	SECOND	25	1
235	WALL	CONCRETE	D	POOR	SECOND	26	2.4
236	DOOR ELEVATOR	METAL	В	POOR	SECOND	26	1.4
237	SLOP SINK	METAL	D	POOR	SECOND	26	1
238	SLOP SINK	CONCRETE	D	POOR	SECOND	26	1
258	WALL	BRICK	A	POOR	SECOND	27	1.1

The Occupational Safety and Health Administration's (OSHA) Lead in Construction Standard 29 CFR 1926.62 states that any concentration of lead poses a potential for worker exposure when working with a lead-containing material.



### 5.0 HAZARDOUS MATERIALS SURVEY

TTL visually identified the following hazardous materials at the Site:

- Approximately 4 fluorescent bulbs, plus an unknown amount in a pile in Room 24
- Approximately 113 fluorescent light fixture ballasts, plus an unknown amount in a pile in Room 24
- Approximately 2 halogen flood light bulbs
- Approximately 4 large bus fuses
- Piles and areas of radioactive waste through-out building
- Approximately 18 mercury vapor light bulbs

Refer to Appendix G for the Hazardous Materials Summary Table.



### 6.0 CONCLUSIONS/RECOMMENDATIONS

This section summarizes the results of the asbestos and LBP survey and provides conclusions and recommendations.

### 6.1 Asbestos Survey

The U.S. EPA defines regulated asbestos-containing material (RACM) as: (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.

The National Emissions Standard for Hazardous Air Pollutants (NESHAP) asbestos regulations require the removal of all RACM from a facility being demolished or renovated prior to beginning any activity that might damage or disturb the material. The U.S. EPA requires written notification if the combined amount of RACM to be removed is at least 260 linear feet, at least 160 square feet, or at least one cubic meter of facility components where length or area could not be measured. The Ohio Department of Health requires ten day notification if the amount of RACM to be removed exceeds 50 square or linear feet.

The following Friable ACM was identified within the site building and requires removal prior to demolition activities:

- Approximately 64 cubic feet (c.f.) of white TSI debris (HSA 11762.01-15)
- Approximately 20 linear feet (l.f.) of white pipe insulation (HSA 11762.01-18)
- Approximately 11 fittings of mud pipe fitting insulation (HSA 11762.01-21)

The following Category I Non-Friable ACM were identified within the site buildings requires removal prior to demolition activities:

- Approximately 289 square feet (s.f.) of 9" x 9" grey floor tile (HSA 11762.01-08)
- Approximately 1,200 s.f. of 9" x 9" brown floor tile and associated black mastic (HSA 11762.01-13)

The following Category II Non-Friable materials were identified to contain asbestos and require removal prior to demolition activities:

- Approximately 100 s.f. of transite panels (HSA 11762.01-23)
- Approximately 60 s.f. of grey transite panels (HSA 11762.01-26)

TTL recommends the removal of the RACM and the ACM that might become RACM based on the project-specific renovation techniques by a licensed asbestos abatement contractor. Based on the condition of the material, the identified ACM may be expected to be a RACM.



A written Notification of Intent to Renovate/Demolish form is required to be submitted to the U.S. EPA or their designated authority, and ODH at least 10 working days prior to beginning any asbestos abatement and/or demolition project.

### **6.2 Lead-Based Paint Survey**

TTL identified LBP that could be impacted by the demolition activities. Painted surfaces were identified as lead-based paint by XRF through-out the site building. LBP throughout building was in intact or not intact condition. TTL recommends any demolition work needs to be performed in accordance with the requirements of OSHA's Lead in Construction Standard 29 CFR 1926.62.

### **6.3 Hazardous Materials Survey**

In accordance with EPA 40 CFR Part 261 (Standards applicable to Generators of Hazardous Waste) and Part 262 (Identification and Listing of Hazardous Waste) observed items that are to be disturbed during renovation or demolition activities will need to be identified, handled and disposed of properly in accordance with Parts 261 and 262.

All hazardous materials are to be handled and disposed of in accordance with federal, state, and local regulations.

### **6.4** <u>Limitations</u>

The scope of work for the asbestos survey did not include roofing materials. The on-site structural engineer deemed the roof unsafe to access; thus, it was not included in this hazardous material survey. TTL has made reasonable efforts to identify and quantify suspect ACM based upon the standard of care in the environmental industry existing at the time of the survey. This survey only summarizes the potential presence, estimated quantities of visually observed ACM, potential LBP, and visually observed hazardous materials.

Additional material disturbed during demolition activities should be evaluated on a case-by-case basis, especially materials that were previously hidden, obscured or inaccessible, to determine if the material is included in this survey. If a given material is not described in this survey or cannot be identified as a non-suspect material, the material should be assumed to contain asbestos, demolition activities should be halted until sampling, and analysis can be accomplished. Parties conducting demolition activities should follow all applicable federal, state, and local regulations in handling identified and suspect ACM.

The information contained in the report was based upon specific parameters and regulations in force at the time of the survey. The information herein is only for the specific use of ECC and TTL, unless written authorization is obtained from TTL. TTL accepts no responsibility for the use, interpretation, or reliance by other parties on the information contained herein, nor does this report represent an instrument of regulatory compliance or an asbestos abatement or lead based paint specification.



# APPENDIX A TTL CERTIFICATIONS



Department of Health Division of Quality Assurance - Asbestos Program

Asbestos Hazard Evaluation Specialist

5851 Spring Hollow Drive Toledo OH 43615

Certification Number Expiration Date
DOB: 08/29/1982 E\$35.641 07/23/2015
This certification is issued pursuant to Chapter 3710 of the
Revised Code and 3701-34 of the Ohio Administrative Code

Certification Card is not valid if altered



# Certificate of Achievement

Performance Environmental Services, Inc.

has successfully completed the Manufacturer's Training Course for the NITON Spectrum Analyzer and is now certified in radiation safety and monitoring, measurement technology, and machine maintenance of the NITON XRF Spectrum Analyzer. (CIH's – The ABIH Awards 1 CM point, approval # 05-396)

A5051738838 Certificate Number 05/19/05 Detroit, MI Date & Site of Course



Training Coordinator

**Director of Training** 



June 9, 2005

1150 Corporate Office Dr Suite 200 Milford, MI 48381

Dear

Congratulations on successfully completing the Manufacturer's Training Course for NITON's portable Spectrum Analyzer instruments. We admire your effort in completing this course and are enclosing your Certificate. This certifies you in radiation safety and monitoring, measurement technology, and machine maintenance of the NITON XRF Spectrum Analyzer.

Now you can join the professionals who are turning to on-site technologies for the measurement of metals in lead-based paint, soil, air, and coatings as well as alloy identification. These technologies offer huge savings in measurement time and cost over conventional methods. At the same time, they have become widely accepted for regulatory accreditation and support.

- EPA lead program accepts XRF for lead paint testing, and verifies performance via "Performance Characteristics Sheets".
- The EPA lead program had implemented a full accreditation program for on-site lead analysis in soil, dust and paint.
- EPA/HUD Method 6200 is published for analysis of contaminants in soils and sediment using field portable X-Ray Fluorescence (XRF).
- NIOSH Method 7702 is published for on-site analysis of filters used for the measurement of airborne lead levels for worker exposure, using portable XRF.

NITON is the leading manufacturer of portable XRF analyzers for contaminant analysis. Instruments can be configured for nearly any application, including lead paint analysis, RCRA metal analysis for soils, coatings and contaminants in air. And readings take as little as a few seconds. For most applications, results meet laboratory-level accuracy standards. For "project oriented" companies, NITON even offers an attractive rental program. Every NITON XRF can be upgraded to keep pace with the changes in your business.

Please call us today to discuss your measurement needs. Our trained, technical staff will help you identify on-site testing methods to save you <u>time and money</u>. On-site analysis also greatly speeds the inspection and clearance process for remediation projects. We'll develop an instrument package that <u>solves your problems</u>. And we'll schedule and on-site demonstration at your convenience.

Please call us for further information, or visit our web site at **www.niton.com**. We are committed to solving your measurement needs.

Best regards,

Training Coordinator

@ COES 3321 A.S.U MI OHTIJ

### **Certificate Number:** 147475 - 12029

# ETC Training Services Group

38900 W. Huron River Drive Romulus, MI 48174-1159 (734) 955-6600

### **PRESENTS**



with certification for having successfully completed the 24 hour/3 day which meets the requirements for

### **Lead Inspector Initial Training Course**

in accordance with the requirements of 40 CFR 745.225, (d)1; HUD Guidelines for Lead Inspectors; LEAD POISONING PREVENTION CODE 845.28

Course Dates: November 11 - 13, 2013

6 months - 3rd Party Exam Eligibility Testing Valid Through: May 11, 2014

(3 years) Training Valid Through: November 11, 2016

Trainer

**ETC President** 



**Certificate Number: 13-35-0002** 

# ETC Training Services Group

38900 Huron River Drive Romulus, Michigan 48174-1159 (734) 955-6600



with certification for having successfully completed the 16 hour/2 day course which meets the requirements for

### **Lead Risk Assessor Initial Training Course**

in accordance with the requirements of 40 CFR 745.225, (d)2; HUD Guidelines for Lead Inspectors; LEAD POISONING PREVENTION CODE 845.28

Course Dates: November 14-15, 2013 6 months- 3<sup>rd</sup> Party Exam Eligibility-Testing Valid Through: May 14, 2014 (3 years) Training Valid Through: November 14, 2016



ETC Fresident

LITHO IN U.S.A.

# APPENDIX B ASBESTOS SURVEY SUMMARY TABLE



### Homogeneous Sampling Areas Table Former Harshaw Chemical Corporation 1000 Harvard Avenue Cleveland, Ohio

HSA#	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
01	Concrete	NF-II	Room 1-1	1,500	s.f.	11762.01-01A, B	Negative
		1	Total	1,500	s.f.		
			Total	1,500	S.I.		
02	Light Grey Caulk	NF-II	Room 1-1 Exterior Walls	150	l.f.	11762.01-02A, B	Negative
			I=	450			
			Total	150	l.f.		
03	White Pipe Insulation Debris	F	Room 1-13	400	s.f.	11762.01-03A, B	Negative
			Total	400	s.f.		
04	Brick Caulk	NF-II	Exterior of Building	NQ		11762.01-04A, B	Negative
04	Dick Gauk	I INI II	Exterior or Building	110		11702.01 04A, B	INCHAINC
			Total	NQ			
05	Drywall Ceiling Material	NF-II	Room 1-11	404	s.f	11762.01-05A, B	Negativo
05	Drywaii Ceiling Materiai	INF-II	ROOM 1-11	404	S.I	11702.01-05A, B	Negative
			Total	404	s.f		
06	Window Glazing	NF-II	Room 1-1	3,178	l.f.	11762.01-06A, B	Negative
			Total	3,178	l.f.		
				3,110			
07	White / Red Ash Debris Inside Pipe	F	Room 1-12	2	s.f.	11762.01-07A, B	Negative
			Total	2	s.f.		
			lotai	2	5.1.		
80	9" x 9" Grey Floor Tile and Associated Black Mastic	NF-I	Room 2-1	289	s.f.	11762.01-08A, B	Positive - Tile Only
			I=		_		
			Total	289	s.f.		
12	Black Sheet Flooring Material	NF-I	Room 2-3	1,715	s.f	11762.01-12A, B	Negative
· <del>-</del>							1
			Total	1,715	s.f.		
13	9" x 9" Brown Floor Tile and Associated Black Mastic	NF-I	Room 2-4	1,200	s.f.	11762.01-13A, B	Positive
13	3 X 3 DIOWII FIOOI THE AND ASSOCIATED DIGCK MASTIC	INIT-I	NOOHI 2-4	1,200	3.1.	11702.01-13A, D	i ositive
			Total	1,200	s.f.		
_							

TTL Project No. 11762.01 Page 1 of 2

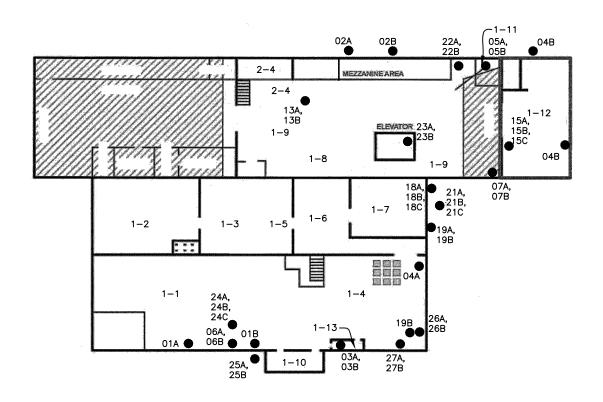
#### Homogeneous Sampling Areas Table Former Harshaw Chemical Corporation 1000 Harvard Avenue Cleveland, Ohio

HSA#	Material Description	Friability	Functional Area	Quantity	Units	Sample Number	Sample Results
15	White TSI Debris	F	High Bay 3rd Floor in Wooden Crates	16	s.f.	11762.01-15A, B	Postive
		I	Total	40	- 4		
			lotai	16	s.f.		
18	White Pipe Insulation	F	Exterior	20	l.f.	11762.01-18A, B	Positive
						, , ,	
			Total	20	l.f.		
10			F		•	44700 04 40A B	N. C
19	Ceramic Insulation Debris	F	Exterior	2	s.f.	11762.01-19A, B	Negative
			Total	2	s.f.		
				_			
21	Mud Pipe Fitting Insulation	F	Exterior	11	fittings	11762.01-21A, B	Positive
		ı	<b>_</b>				
			Total	11	fittings		
22	Cloth Wire Insulation	NF-II	Exterior	20	I.f.	11762.01-22A, B	Negative
	The mediation		- Allonoi			TTTOLIOT LLTX, B	rioganio
			Total	20	l.f.		
23	Transite Panels	NF-II	By Elevators	100	s.f.	11762.01-23A, B	Positive
			Total	100	s.f.		
			1000	100	<b>U</b>		
24	Paper Thermal Insulation	F	Room 1-1	4	l.f.	11762.01-24A, B	Negative
			<b>-</b>				
			Total	4	l.f.		
25	Tar Sealing Material	NF-II	Exterior	10	s.f.	11762.01-25A, B	Negative
	i sa eesaa.gatonai				J	52.01 207., 5	1.10850110
			Total	10	s.f.		
26	Grey Transite Panels	NF-II	Exterior	60	s.f.	11762.01-26A, B	Positive
			Total	60	s.f.		
			1000		J		
27	Cable Insulation	NF-II	Exterior	40	l.f.	11762.01-27A, B	Negative
			Total	40	l.f.		
	NQ = Not Quantified						
	ING = NOT Qualitilled	L					

TTL Project No. 11762.01 Page 2 of 2

## APPENDIX C ASBESTOS SAMPLE LOCATIONS MAP





#### **LEGEND**

01A ● SAMPLE LOCATION

1-1 FIRST FLOOR ROOM 1

2-1 SECOND FLOOR ROOM 1

#### FIGURE 1.0 ASBESTOS SAMPLE SURVEY

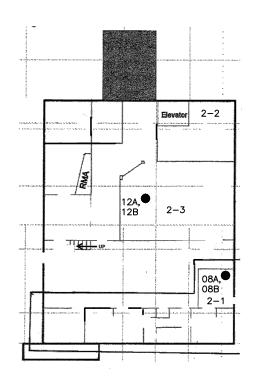
FORMER HARSHAW CHEMICAL COMPANY 1000 HARVARD AVENUE CLEVELAND, OHIO

PREPARED FOR

### ENVIRONMENTAL CHEMICAL CORPORATION EDISON, NEW JERSEY

DRAWN CLW/10-10-14	CHECKED
REVISED	APPROVED
JOB NO. 11762.01	
DRAWING NUMBER	
1176201-03H	associates inc

NOT TO SCALE



#### **LEGEND**

08A ● SAMPLE LOCATION

1-1 FIRST FLOOR ROOM 1

2-1 SECOND FLOOR ROOM 1

#### FIGURE 2.0 ASBESTOS SAMPLE SURVEY

FORMER HARSHAW CHEMICAL COMPANY 1000 HARVARD AVENUE CLEVELAND, OHIO

PREPARED FOR

#### ENVIRONMENTAL CHEMICAL CORPORATION EDISON, NEW JERSEY

DRAWN CLW/10-10-14	CHECKED
REVISED	APPROVED
JOB NO. 11762.01	
DRAWING NUMBER	
1176201-04H	associates inc

NOT TO SCALE

## APPENDIX D ASBESTOS ANALYTICAL REPORT





1915 North 12th Street Toledo, OH 43604-5305 T 419-324-2222 F 419-241-1808 www.ttlassoc.com

Page 1 of 9

DATE: October 1, 2014

**CLIENT:** Environmental Chemical Corporation

110 Fieldcrest Avenue #13

EDISON, NEW JERSEY 08837

ATTN:

**Project No.:** 11762.01

Lab Receiving No.: 14-09-204222

Date Received: September 25, 2014

Date Sampled: September 24, 2014

Project Location: Former Harshaw Chemical Company

1000 Harvard Avenue

Cleveland, Ohio

Sample Point(s): see analytical results

Analysis Performed: Asbestos Analysis by PLM

DISCLAIMER

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. TTL Associates, Inc., assumes no responsibility or liability for the reliance hereon or use hereof by appone other than the above named client.

#### ANALYTICAL NARRATIVE

The note(s) below pertain to the sample(s) and analytical data reported herein:

Quantitative results are listed as approximate % asbestos. Results are based on calibrated visual estimation of materials. All results <1% asbestos (Trace) have been confirmed by the analysis of a duplicate slide. As per the method, all "negative" or BDL samples have been confirmed by triplicate analyses. Due to the nature of the samples the following measurements of uncertainty may apply:

% Asbestos	Uncertainty
1%	± 2%
5%	± 4%
10%	± 5%
>20%	± 10%

Due to the complexity of analyzing floor tile by PLM, the client may want to consider having "negative" floor tiles analyzed further by an alternative method such as TEM.

Samples are archived by TTL Associates for a period of thirty days. Samples may be retained for a longer period of time or returned to the client upon written request.

#### **Laboratory Accreditation:**

U.S. Department of Commerce, National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP), Lab #101594-0. Accredited to the 1982 Interim Method for the Determination of Asbestos, 40 CFR, Part 763, Subpart E, Appendix E

This report may 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, and may not be reproduced, except in full, without the written approval of the laboratory.

#### Report Key:

BDL = Below Detection Level

n/a = not applicable

HSA = Homogeneous Sampling Area

Detection Level: 1% asbestos fibers greater than one micrometer in length.

**METHOD NUMBER:** 

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299

BATCH NUMBER:

2PLM017014, 2PLM017114, 2PLM017214

DATE ANALYZED:

September 29, 2014

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS		
221148	1176201-01A	01	Along windows	Grey Plaster	100% Binder	BDL		
221149	1176201-01B	01	Along windows	Grey Plaster	100% Binder	BDL		
221150	1176201-02A	02	External walls	Grey Caulk	BDL			
221151	1176201-02B	02	External walls	Grey Caulk	100% Binder	BDL		
221152	1176201-03A	03	Room 1-13	White Insulation	96% Binder, 2% Fiberglass, 2% Synthetic Fibers	BDL		
221153	1176201-03B	03	Room 1-13	White Insulation	96% Binder, 2% Fiberglass, 2% Synthetic Fibers	BDL		
221154	1176201-04A	04	Room 1-7	Brown/White Plaster/Paint	100% Binder	BDL		
221155	1176201-04B	04	Exterior	Brown/White Plaster/Paint	100% Binder	BDL		
221156	1176201-05A Layer A	05	Room 1-11	White Gypsum Board	99% Binder, 1% Cellulose	BDL		

METHOD NUMBER:

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299

**BATCH NUMBER:** 

2PLM017014, 2PLM017114, 2PLM017214

DATE ANALYZED:

September 29, 2014

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS		
221156	1176201-05A Layer B	05	same	Grey Backing	100% Cellulose	BDL		
221157	1176201-05B Layer A	05	Room 1-11	White Gypsum Board	99% Binder, 1% Cellulose	BDL		
221157	1176201-05B Layer B	05	same	Grey Backing	100% Cellulose	BDL		
221158	1176201-06A	06	Room 1-1	Beige Glazing Compound	100% Binder	BDL		
221159	1176201-06B	06	Room 1-1	Beige Glazing Compound	100% Binder	BDL		
221160	1176201-07A	07	Room 1-12, pipe	Tan Material	100% Binder	BDL		
221161	1176201-07B	07	Room 1-12, pipe	Tan Material	100% Binder	BDL		
221162	1176201-08A Layer A	08	Room 2-1	Dark Brown Floor Tile	96% Binder	4% Chrysotile		
221162	1176201-08A Layer B	08	same	Black Mastic	100% Binder	BDL		
221163	1176201-08B Layer A	08	Room 2-1	Dark Brown Floor Tile	95% Binder	5% Chrysotile		

METHOD NUMBER:

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299

**BATCH NUMBER:** 

2PLM017014, 2PLM017114, 2PLM017214

DATE ANALYZED:

September 29, 2014

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS	
221163	1176201-08B Layer B	08	same	Black Mastic	100% Binder	BDL	
221164	1176201-12A Layer A	12	Room 2-3	Black Coating	100% Binder	BDL	
221164	1176201-12A Layer B	12	same	Black Floor Tile	100% Binder	BDL	
221165	1176201-12B Layer A	12	Room 2-3	Black Coating	100% Binder	BDL	
221165	1176201-12B Layer B	12	same	Black Floor Tile	100% Binder	BDL	
221166	1176201-13A Layer A	13	Room 2-4	Dark Brown Floor Tile	90% Binder	10% Chrysotile	
221166	1176201-13A Layer B	13	same	Black Mastic	97% Binder	3% Chrysotile	
221167	1176201-13B Layer A	13	Room 2-4	Dark Brown Floor Tile	90% Binder	10% Chrysotile	
221167	1176201-13B Layer B	13	same	Black Mastic	97% Binder	3% Chrysotile	
221168	1176201- <b>1</b> 5A	15	Third floor, wooden crates	Beige Insulation	84% Binder	15% Amosite, 1% Chrysotile	

METHOD NUMBER:

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299

**BATCH NUMBER:** 

2PLM017014, 2PLM017114, 2PLM017214

DATE ANALYZED:

September 29, 2014

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS	
221169	1176201-15B	15	Third floor, wooden crates	Beige Insulation	84% Binder	14% Amosite, 2% Chrysotile	
221170	1176201-15C	15	Third floor, wooden crates	Beige Insulation	84% Binder	14% Amosite, 2% Chrysotile	
221171	1176201-18A	18	Exterior	Light Grey Fabric Sheet	75% Binder, 10% Fiberglass	15% Chrysotile	
221172	1176201-18B	18	Exterior	Light Grey Fabric Sheet	75% Binder, 10% Fiberglass	15% Chrysotile	
221173	1176201-18C	18	Exterior	Light Grey Fabric Sheet	75% Binder, 10% Fiberglass	15% Chrysotile	
221174	1176201-19A	19	Exterior	Grey Material	92% Binder, 8% Fiberglass	BDL	
221175	1176201-19B	19	Exterior	Grey Material	92% Binder, 8% Fiberglass	BDL	
221176	1176201-21A	21	Exterior	White Insulation	96% Binder, 4% Synthetic Fibers	BDL	
221177	1176201-21B	21	Exterior	White Insulation	96% Binder, 1% Fiberglass, 3% Synthetic Fibers	BDL	

**METHOD NUMBER:** EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299

**BATCH NUMBER:** 2PLM017014, 2PLM017114, 2PLM017214

**DATE ANALYZED:** September 29, 2014

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS	
221178	1176201-21C Layer A	21	Exterior	White Insulation	96% Binder, 4% Synthetic Fibers	BDL	
221178	1176201-21C Layer B	21	same	Light Grey Wrap	85% Binder	15% Chrysotile	
221179	1176201-22A Layer A	22	Exterior	Black Coating	100% Binder	BDL	
221179	1176201-22A Layer B	22	same	Off White Fabric	100% Cellulose	BDL	
221180	1176201-22B Layer A	22	Exterior	Black Coating	100% Binder	BDL	
221180	1176201-22B Layer B	22	same	Grey Fabric	100% Cellulose	BDL	
221181	1176201-23A	23	By the elevator	Grey Transite	82% Binder	18% Chrysotile	
221182	1176201-23B	23	By the elevator	Grey Transite	82% Binder	18% Chrysotile	
221183	1176201-24A	24	Room 1-1	Tan Paper/Glue	35% Binder, 65% Cellulose	BDL	
221184	1176201-24B	24	Room 1-1	Tan Paper/Glue	35% Binder, 65% Cellulose	BDL	

METHOD NUMBER:

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299

**BATCH NUMBER:** 

2PLM017014, 2PLM017114, 2PLM017214

DATE ANALYZED:

September 29, 2014

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS		
221185	1176201-24C	24	Room 1-1	Tan Paper/Glue	55% Binder, 45% Cellulose	BDL		
221186	1176201-25A	25	Exterior	Black Tar	95% Binder, 5% Cellulose	BDL		
221187	1176201-25B	25	Exterior	Black Tar	95% Binder, 5% Cellulose	BDL		
221188	1176201-26A	26	Exterior	Grey Transite	85% Binder	15% Chrysotile		
221189	1176201-26B	26	Exterior	Grey Transite	85% Binder	15% Chrysotile		
221190	1176201-27A Layer A	27	Exterior	Grey Fabric	40% Binder, 60% Cellulose	BDL,		
221190	1176201-27A Layer B	27	same	Black Fabric	32% Binder, 68% Cellulose	BDL		
221190	1176201-27A Layer C	27	same	Black Tar Fabric	85% Binder, 15% Cellulose	BDL		
221191	1176201-27B Layer A	27	Exterior	Grey Fabric	40% Binder, 60% Cellulose	BDL		
221191	1176201-27B Layer B	27	same	Black Fabric	32% Binder, 68% Cellulose	BDL		

Page 9 of 9

**METHOD NUMBER:** 

EPA/600/R-93/116, July, 1993; 40 CFR, Ch. 1 (7-1-93 ed.), Part 763, Subpart F, Appendix A, pages 293-299

BATCH NUMBER:

2PLM017014, 2PLM017114, 2PLM017214

DATE ANALYZED:

September 29, 2014

LAB No.	Sample ID	HSA No.	SAMPLE LOCATION	LAYER DESCRIPTION	NON-ASBESTOS COMPONENTS	APPROXIMATE % ASBESTOS
221191	1176201-27B Layer C	27	same	Black Tar Fabric	85% Binder, 15% Cellulose	BDL



1915 North 12th St., Toledo, OH 43604-5305; Voice 419-324-2222, Fax 419-241-1808 Ship To Address: ATTN: RECEIVING LAB, 1915 North 12th St., Toledo, OH 43604-5305

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## APPENDIX E X-RAY FLUORESCENCE INSTRUMENT DATA TABLE



					1000 Harvard Av	enue .					
Reading					Cleveland, Oh	io					
No.	Component	Color	Substrate	Side	Condition	Floor	Room	Time	Units	PbC	PbC Error
17								9/24/2014 9:12	cps	7.4	0
18								9/24/2014 9:16	cps	7.14	0
19	Calibrate							9/24/2014 9:17	mg / cm ^2	0.8	0.2
20	Calibrate							9/24/2014 9:17	mg / cm ^2	0.8	0.2
21	Calibrate							9/24/2014 9:18	mg / cm ^2	1	0.1
22	WALL	WHITE	BRICK	D	NOT INTACT	FIRST	1	9/24/2014 9:29	mg / cm ^2	0.03	0.05
23	WALL	GRAY	BRICK	D	NOT INTACT	FIRST	1	9/24/2014 9:31	mg / cm ^2	0.05	0.05
24	WALL	ORANGE	BRICK	D	NOT INTACT	FIRST	1	9/24/2014 9:32	mg / cm ^2	0.03	0.02
25	WALL	ORANGE	BRICK	Α	NOT INTACT	FIRST	1	9/24/2014 9:37	mg / cm ^2	0.08	0.1
26	WALL	GRAY	BRICK	Α	NOT INTACT	FIRST	1	9/24/2014 9:38	mg / cm ^2	0.09	0.1
27	WALL	WHITE	BRICK	Α	NOT INTACT	FIRST	1	9/24/2014 9:39	mg / cm ^2	0.02	0.06
28	WALL	RED	BRICK	Α	NOT INTACT	FIRST	1	9/24/2014 9:39	mg / cm ^2	0.09	0.03
29	WALL	WHITE	CONCRETE	Α	NOT INTACT	FIRST	1	9/24/2014 9:41	mg / cm ^2	0.24	0.73
30	WALL	WHITE	BRICK	С	NOT INTACT	FIRST	1	9/24/2014 9:43	mg / cm ^2	0.01	0.02
31	WALL	WHITE	BRICK	С	NOT INTACT	FIRST	1	9/24/2014 9:44	mg / cm ^2	0.03	0.06
32	WALL	GRAY	BRICK	С	NOT INTACT	FIRST	1	9/24/2014 9:45		0.21	0.06
33	WALL	RED	BRICK	С	NOT INTACT	FIRST	1	9/24/2014 9:46	mg / cm ^2	0.09	0.07
34	WINDOW	BROWN	WOOD	С	NOT INTACT	FIRST	1	9/24/2014 9:47	mg / cm ^2	12.3	9
35	WINDOW	GRAY	WOOD	Α	NOT INTACT	FIRST	1	9/24/2014 9:49	mg / cm ^2	10.2	8.1
36	WINDOW	GRAY	METAL	Α	NOT INTACT	FIRST	1	9/24/2014 9:51	mg / cm ^2	0.6	0.3
37	COLUMN	NO PAINT	METAL	Α	NOT INTACT	FIRST	1	9/24/2014 9:53	mg / cm ^2	0.05	0.84
38	COLUMN	WHITE	METAL	Α	NOT INTACT	FIRST	1	9/24/2014 9:55	mg / cm ^2	2.8	1.7
39	FLOOR	BROWN	BRICK	Α	NOT INTACT	FIRST	1	9/24/2014 9:57	mg / cm ^2	0.12	0.04
40	GUARDING	YELLOW	METAL	Α	INTACT	FIRST	1	9/24/2014 9:59	mg / cm ^2	0	0.02
41	DOOR	GRAY	METAL	С	NOT INTACT	FIRST	1	9/24/2014 10:00	mg / cm ^2	0	0.02
42	WALL	WHITE	CONCRETE	С	NOT INTACT	FIRST	1	9/24/2014 10:01	mg / cm ^2	0.04	0.02
43	DOOR	WHITE	METAL	С	NOT INTACT	FIRST	1	9/24/2014 10:02	mg / cm ^2	0	0.02
44	WALL	WHITE	BRICK	В	NOT INTACT	FIRST	1	9/24/2014 10:05	mg / cm ^2	0.7	0.1
45	WALL	GRAY	BRICK	В	NOT INTACT	FIRST	1	9/24/2014 10:06	mg / cm ^2	1.9	0.9
46	FLOOR	GRAY	BRICK	В	INTACT	FIRST	1	9/24/2014 10:07	mg / cm ^2	0.19	0.11
47	FLOOR	YELLOW	CONCRETE	В	INTACT	FIRST	1	9/24/2014 10:07	mg / cm ^2	0.07	0.06
48	FLOOR	YELLOW	CONCRETE	В	INTACT	FIRST	1	9/24/2014 10:07	mg / cm ^2	0.08	0.07
49	DOOR	TAN	METAL	Α	NOT INTACT	FIRST	1	9/24/2014 10:12	mg / cm ^2	14	9.7
50	DOOR	TAN	WOOD	D	NOT INTACT	FIRST	1	9/24/2014 10:14	mg / cm ^2	0.11	0.12
51	DOOR	TAN	WOOD	D	NOT INTACT	STAIRWELL	STAIRWELL	9/24/2014 10:15	mg / cm ^2	0.6	0.2
52	DOOR	TAN	WOOD	D	NOT INTACT	STAIRWELL	STAIRWELL	9/24/2014 10:15	mg / cm ^2	0.4	0.5
53	DOOR	TAN	METAL	В	NOT INTACT	STAIRWELL	STAIRWELL	9/24/2014 10:16	mg / cm ^2	9.3	8.3
54	WALL	WHITE	METAL	С	NOT INTACT	STAIRWELL	STAIRWELL	9/24/2014 10:18	_	0.08	0.12
55	WALL	WHITE	METAL	С	NOT INTACT	STAIRWELL	STAIRWELL	9/24/2014 10:18		0.5	

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Reading					Cleveland. Oh						
No.	Component	Color	Substrate	Side	Condition	Floor	Room	Time	Units	PbC	PbC Error
56	STAIR RUNNER	GRAY	METAL	D	NOT INTACT	STAIRWELL	STAIRWELL	9/24/2014 10:21	mg / cm ^2	0.1	0.06
57	WALL	WHITE	BRICK	Α	NOT INTACT	FIRST	3	9/24/2014 10:28	mg / cm ^2	0.01	0.02
58	WALL	WHITE	BRICK	В	NOT INTACT	FIRST	3	9/24/2014 10:29	mg / cm ^2	0.05	0.05
59	WALL	WHITE	BRICK	С	NOT INTACT	FIRST	3	9/24/2014 10:29	mg / cm ^2	0.06	0.04
60	WALL	WHITE	BRICK	D	NOT INTACT	FIRST	3	9/24/2014 10:30	mg / cm ^2	0.21	0.73
61	WALL	GREEN	BRICK	D	NOT INTACT	FIRST	3	9/24/2014 10:30	mg / cm ^2	0.5	0.5
62	DRIER	YELLOW	METAL	А	INTACT	FIRST	3	9/24/2014 10:31	mg / cm ^2	0.09	0.17
63	WASHER	WHITE	METAL	А	INTACT	FIRST	3	9/24/2014 10:32	mg / cm ^2	0	0.02
64	TANK STAND	BLACK	METAL	А	INTACT	FIRST	3	9/24/2014 10:33	mg / cm ^2	0	0.02
65	DOOR	GRAY	WOOD	С	INTACT	FIRST	3	9/24/2014 10:34	mg / cm ^2	0	0.02
66	FLOOR	GRAY	CONCRETE	Α	NOT INTACT	FIRST	3	9/24/2014 10:35	mg / cm ^2	1.4	0.4
67	DRUM	RED	METAL	С	NOT INTACT	FIRST	3	9/24/2014 10:39	mg / cm ^2	0	0.02
68	DRUM	GRAY	METAL	С	NOT INTACT	FIRST	3	9/24/2014 10:40	mg / cm ^2	0.01	0.04
69	DOOR FRAME	BROWN	WOOD	Α	NOT INTACT	FIRST	3	9/24/2014 10:41	mg / cm ^2	4.8	2.6
70	DOOR FRAME	GRAY	METAL	D	INTACT	FIRST	2	9/24/2014 10:44	mg / cm ^2	0	0.02
71	DOOR FRAME	GRAY	METAL	Α	INTACT	FIRST	2	9/24/2014 10:45	mg / cm ^2	0.01	0.06
72	DOOR	GRAY	METAL	Α	INTACT	FIRST	2	9/24/2014 10:45	mg / cm ^2	0	0.02
73	DOOR	GRAY	METAL	D	INTACT	FIRST	2	9/24/2014 10:46	mg / cm ^2	0.02	0.12
74	WALL	RED	BRICK	С	NOT INTACT	FIRST	4	9/24/2014 10:49	mg / cm ^2	0.07	0.04
75	WALL	WHITE	BRICK	С	NOT INTACT	FIRST	4	9/24/2014 10:50	mg / cm ^2	0.01	0.02
		WHITE	BRICK	В	NOT INTACT	FIRST	4	9/24/2014 10:52	mg / cm ^2	4	2.6
		BLUE	BRICK	С	NOT INTACT	FIRST	4	9/24/2014 10:52	mg / cm ^2	2.9	_
		GRAY	WOOD	В	NOT INTACT	FIRST	4	9/24/2014 10:54		0.06	
		GRAY	WOOD	В	NOT INTACT	FIRST	4	9/24/2014 10:55		1.8	
		WHITE	METAL	В	NOT INTACT	FIRST	4	9/24/2014 10:56	mg / cm ^2	0.6	
		GRAY	WOOD	Α	NOT INTACT	FIRST	4	9/24/2014 10:58	mg / cm ^2	2.5	
		WHITE	METAL	С	NOT INTACT	FIRST	4	9/24/2014 11:00	mg / cm ^2	0	0.02
		GRAY	CONCRETE	С	INTACT	FIRST	4	9/24/2014 11:01	mg / cm ^2	0.02	0.08
		BLUE	WOOD	Α	INTACT	FIRST	4	9/24/2014 11:03		1.4	0.3
		GRAY	WOOD	С	INTACT	FIRST	5	9/24/2014 11:04	mg / cm ^2	8.2	7
		WHITE	CONCRETE	С	INTACT	FIRST	5	9/24/2014 11:05		0.03	0.02
		WHITE	CONCRETE	Α	INTACT	FIRST	5	9/24/2014 11:06	mg / cm ^2	0.05	0.02
88	WALL	WHITE	CONCRETE	D	INTACT	FIRST	5	9/24/2014 11:07	mg / cm ^2	0.01	0.02
		WHITE	CONCRETE	D	INTACT	FIRST	5	9/24/2014 11:08	mg / cm ^2	0.07	0.04
		WHITE	METAL	D	INTACT	FIRST	5	9/24/2014 11:09	mg / cm ^2	0.13	
		WHITE	METAL	D	INTACT	FIRST	5	9/24/2014 11:09		0.14	0.15
		BLUE	WOOD	D	NOT INTACT	FIRST	5	9/24/2014 11:11		0.04	
		GREEN	WOOD	D	NOT INTACT	FIRST	5	9/24/2014 11:11		0.7	0.2
94	FLOOR	GRAY	CONCRETE	В	NOT INTACT	FIRST	6	9/24/2014 11:16	mg / cm ^2	0.02	0.03

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Reading					Cleveland, Oh						
No.	Component	Color	Substrate	Side	Condition	Floor	Room	Time	Units	PbC	PbC Error
95	WALL	WHITE	BRICK	В	NOT INTACT	FIRST	6	9/24/2014 11	:17 mg / cm ^2	0.24	0.
96	COLUMN	WHITE	METAL	В	NOT INTACT	FIRST	6	9/24/2014 11	:19 mg / cm ^2	0.02	0.0
97	COLUMN	WHITE	METAL	D	NOT INTACT	FIRST	6	9/24/2014 11	:19 mg / cm ^2	0.19	0.2
98	COLUMN	BROWN	WOOD	С	NOT INTACT	FIRST	6	9/24/2014 11	:20 mg / cm ^2	6	3.
99	WINDOW FRAME	WHITE	METAL	D	NOT INTACT	FIRST	6	9/24/2014 11	:24 mg / cm ^2	0.09	0.1
100	DOOR FRAME	GRAY	WOOD	Α	NOT INTACT	FIRST	6	9/24/2014 11	:27 mg / cm ^2	0	0.0
101	DOOR FRAME	GRAY	WOOD	С	NOT INTACT	FIRST	7	9/24/2014 11	:31 mg / cm ^2	0.02	0.1
102	DOOR	BLUE	WOOD	С	NOT INTACT	FIRST	7	9/24/2014 11	:32 mg / cm ^2	0.3	0.1
103	FREIGHT ELEVATOR DOOR	BLUE	METAL	D	NOT INTACT	FIRST	7	9/24/2014 11	:34 mg / cm ^2	0.14	0.
104	COLUMN	GRAY	CONCRETE	D	NOT INTACT	FIRST	7	9/24/2014 11	:35 mg / cm ^2	0	0.0
105	COLUMN	GRAY	CONCRETE	D	NOT INTACT	FIRST	7	9/24/2014 11	:36 mg / cm ^2	0	0.0
106	WALL	GRAY	CONCRETE	С	NOT INTACT	FIRST	7	9/24/2014 11	:36 mg / cm ^2	0.02	0.0
107	WALL	WHITE	CONCRETE	С	NOT INTACT	FIRST	7	9/24/2014 11	:37 mg / cm ^2	0.03	0.0
108	DOOR	GREEN	WOOD	В	NOT INTACT	FIRST	7	9/24/2014 11	:39 mg / cm ^2	0.05	0.1
109	DOOR FRAME	GRAY	WOOD	В	NOT INTACT	FIRST	7	9/24/2014 11	:40 mg / cm ^2	0.04	0.0
110	FRAME BY ELEVATOR	YELLOW	METAL	С	INTACT	FIRST	7	9/24/2014 11	:43 mg / cm ^2	0	0.0
111	DOOR	GRAY	WOOD	А	INTACT	FIRST	7	9/24/2014 11	:45 mg / cm ^2	0.05	0.1
112	WALL	GRAY	WOOD	А	NOT INTACT	FIRST	7	9/24/2014 11	:46 mg / cm ^2	0.04	0.1
113	WALL	GRAY	CONCRETE	D	NOT INTACT	FIRST	7	9/24/2014 11	:47 mg / cm ^2	2.4	1.4
114	WALL	WHITE	CONCRETE	D	NOT INTACT	FIRST	7	9/24/2014 11	:47 mg / cm ^2	0.03	0.0
115	STAIR CASE	BROWN	METAL	D	NOT INTACT	FIRST	7	9/24/2014 11	:49 mg / cm ^2	0.05	0.0
116	DOOR	BLACK	WOOD	С	NOT INTACT	FIRST	7	9/24/2014 11	:50 mg / cm ^2	2.4	
117	HAND RAIL	BLACK	METAL	Α	NOT INTACT	FIRST	7	9/24/2014 11	:52 mg / cm ^2	1.8	0.
118	DOORFRAME	YELLOW	WOOD	А	INTACT	FIRST	7	9/24/2014 11	:53 mg / cm ^2	0.05	0.1
119	FLOOR	YELLOW	CONCRETE	А	NOT INTACT	FIRST	7	9/24/2014 11	:55 mg / cm ^2	0.04	0.0
120	WALL	RED	CONCRETE	С	NOT INTACT	FIRST	8	9/24/2014 12	:00 mg / cm ^2	0.14	0.0
121	WALL	WHITE	CONCRETE	С	NOT INTACT	FIRST	8	9/24/2014 12	:00 mg / cm ^2	0.4	0.
122	WALL	WHITE	BRICK	С	NOT INTACT	FIRST	8	9/24/2014 12	:01 mg / cm ^2	0.04	0.0
123	WALL	WHITE	BRICK	С	NOT INTACT	FIRST	8	9/24/2014 12	:02 mg / cm ^2	0.27	0.0
124	COLUMN	BLACK	METAL	А	NOT INTACT	FIRST	8	9/24/2014 12	:03 mg / cm ^2	0.01	0.0
125	COLUMN	BLACK	METAL	А	NOT INTACT	FIRST	8	9/24/2014 12	:04 mg / cm ^2	0.08	0.1
126	WALL	GREEN	CONCRETE	С	NOT INTACT	FIRST	8	9/24/2014 12	:05 mg / cm ^2	2	0.
127	DOOR	GRAY	WOOD	С	NOT INTACT	FIRST	8	9/24/2014 12	:06 mg / cm ^2	0.04	0.0
128	DOOR	GRAY	WOOD	С	NOT INTACT	FIRST	8	9/24/2014 12	:06 mg / cm ^2	0.07	0.2
129	COLUMN	WHITE	METAL	С	NOT INTACT	FIRST	8		:07 mg / cm ^2	0.03	0.0
130	WALL	WHITE	CONCRETE	Α	NOT INTACT	FIRST	9		:10 mg / cm ^2	0.6	0.
	WALL	GRAY	CONCRETE	А	NOT INTACT	FIRST	9		:10 mg / cm ^2	0	1
	WALL	GRAY	CONCRETE	Α	NOT INTACT	FIRST	9		:11 mg / cm ^2	0	0.0
	WALL	GRAY	CONCRETE	А	NOT INTACT	FIRST	9		:11 mg / cm ^2	0.01	

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Reading					Cleveland, Oh						
No.	Component	Color	Substrate	Side	Condition	Floor	Room	Time	Units	PbC	PbC Error
134	WINDOW FRAME	RED	METAL	D	NOT INTACT	FIRST	9	9/24/2014 12:2	12 mg / cm ^2	0.05	0.0
135	WINDOW FRAME	RED	METAL	D	NOT INTACT	FIRST	9	9/24/2014 12:2	12 mg / cm ^2	0.03	0.0
136	DOOR	GRAY	WOOD	А	NOT INTACT	FIRST	9	9/24/2014 12:2	13 mg / cm ^2	0	0.0
137	DOOR	GRAY	WOOD	Α	NOT INTACT	FIRST	9	9/24/2014 12:2	13 mg / cm ^2	0	0.0
138	DOOR FRAME	GRAY	WOOD	Α	NOT INTACT	FIRST	9	9/24/2014 12:2	14 mg / cm ^2	0	0.0
139	DOOR FRAME	GREEN	WOOD	В	NOT INTACT	FIRST	10	9/24/2014 12:2	L5 mg / cm ^2	0.8	0.
140	DOOR	GREEN	WOOD	В	NOT INTACT	FIRST	10	9/24/2014 12:2	16 mg / cm ^2	0.8	0.
141	WALL	WHITE	CONCRETE	В	NOT INTACT	FIRST	10	9/24/2014 12:2	16 mg / cm ^2	0.04	0.0
142	WALL	WHITE	CONCRETE BRICK	В	NOT INTACT	FIRST	10	9/24/2014 12:2	17 mg / cm ^2	0.02	0.0
143	WALL	GREEN	CONCRETE	D	NOT INTACT	FIRST	10	9/24/2014 12:2	17 mg / cm ^2	0.5	0.4
144	COLUMN	YELLOW	METAL	Α	NOT INTACT	FIRST	10	9/24/2014 12:2	18 mg / cm ^2	0.19	0.2
145	DOOR	GREEN	WOOD	D	NOT INTACT	FIRST	11	9/24/2014 12:2	21 mg / cm ^2	0.8	0.:
146	WALL	WHITE	BRICK	D	NOT INTACT	FIRST	11	9/24/2014 12:2	22 mg / cm ^2	0.01	0.02
147	WALL	WHITE	BRICK	Α	NOT INTACT	FIRST	11	9/24/2014 12:2	22 mg / cm ^2	0.02	0.05
148	BRACKET ON WALL	GRAY	METAL	В	NOT INTACT	FIRST	11	9/24/2014 12:2	25 mg / cm ^2	0.01	0.07
149	BRACKET ON WALL	GRAY	METAL	В	NOT INTACT	FIRST	11	9/24/2014 12:2	25 mg / cm ^2	0	0.02
150	FRAMING	GRAY	METAL	D	NOT INTACT	FIRST	11	9/24/2014 12:2	26 mg / cm ^2	0.01	0.05
151	FLOOR LOFT AREA	TEAL	WOOD	D	NOT INTACT	FIRST	11	9/24/2014 12:2	27 mg / cm ^2	0.6	0.3
152	FLOOR	GRAY	CONCRETE	D	NOT INTACT	FIRST	11	9/24/2014 12:2	28 mg / cm ^2	0.01	0.03
153	FLOOR LOFT AREA	WHITE	WOOD	Α	INTACT	FIRST	11	9/24/2014 12:3	88 mg / cm ^2	0.01	0.05
154	DOOR	GRAY	WOOD	Α	INTACT	FIRST	12	9/24/2014 12:4	10 mg / cm ^2	1.1	0.:
155	DOOR	GRAY	WOOD	Α	INTACT	FIRST	12	9/24/2014 12:4	10 mg / cm ^2	1.2	0.2
156	WALL	WHITE	CONCRETE	Α	INTACT	FIRST	12	9/24/2014 12:4	11 mg / cm ^2	1.5	0.!
157	WALL	WHITE	BRICK	С	NOT INTACT	FIRST	12	9/24/2014 12:4	12 mg / cm ^2	0.06	0.0
158	WALL	BLACK	BRICK	С	NOT INTACT	FIRST	12	9/24/2014 12:4	12 mg / cm ^2	0.07	0.0
159	COLUMN	YELLOW	METAL	Α	NOT INTACT	FIRST	12	9/24/2014 12:4	13 mg / cm ^2	0.09	0.1
160	COLUMN	GREEN	METAL	Α	NOT INTACT	FIRST	13	9/24/2014 14:3	L6 mg / cm ^2	0.06	0.13
161	COLUMN	WHITE	METAL	Α	NOT INTACT	FIRST	13	9/24/2014 14:3	18 mg / cm ^2	0.08	0.2
162	DOOR	GRAY	WOOD	Α	NOT INTACT	FIRST	13	9/24/2014 14:1	.9 mg / cm ^2	1.6	0.
163	DOOR	WHITE	METAL	Α	NOT INTACT	FIRST	13	9/24/2014 14:2	20 mg / cm ^2	2.4	1.
164	COLUMN	WHITE	METAL	В	NOT INTACT	MEZZANINE	13	9/24/2014 14:2	23 mg / cm ^2	0.13	0.1
165	WALL	WHITE	BRICK	В	NOT INTACT	MEZZANINE	13	9/24/2014 14:2	24 mg / cm ^2	0.17	0.0
166	FLOOR	WHITE	CONCRETE	В	NOT INTACT	MEZZANINE	13	9/24/2014 14:2	25 mg / cm ^2	0.03	0.0
167	WALL	YELLOW	CONCRETE	D	NOT INTACT	MEZZANINE	14	9/24/2014 14:2	29 mg / cm ^2	0.07	0.0
168	WALL	YELLOW	CONCRETE	D	NOT INTACT	MEZZANINE	14	9/24/2014 14:3	mg / cm ^2	0.07	0.0
169	WALL GLAZED BLOCK	YELLOW	CONCRETE	В	NOT INTACT	MEZZANINE	14	9/24/2014 14:3	31 mg / cm ^2	0	0.0
170	WALL GLAZED BLOCK	YELLOW	DRYWALL	С	NOT INTACT	MEZZANINE	14	9/24/2014 14:3	32 mg / cm ^2	0.11	0.2
171	DOOR	YELLOW	WOOD	D	NOT INTACT	MEZZANINE	14	9/24/2014 14:3	34 mg / cm ^2	2	0.
172	DOOR	YELLOW	WOOD	В	NOT INTACT	MEZZANINE	15	9/24/2014 14:3	35 mg / cm ^2	2.1	

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Reading					Cleveland, Oh						
No.	Component	Color	Substrate	Side	Condition	Floor	Room	Time	Units	PbC	PbC Error
173	WALL	WHITE	CONCRETE	В	NOT INTACT	MEZZANINE	15	9/24/2014 14:35	mg / cm ^2	0.3	0.59
174	FRAME	BROWN	METAL	С	NOT INTACT	MEZZANINE	15	9/24/2014 14:37	mg / cm ^2	0.02	0.07
175	DOOR	GRAY	WOOD	D	NOT INTACT	MEZZANINE	15	9/24/2014 14:38	mg / cm ^2	1.9	0.7
176	COLUMN	BLACK	METAL	С	NOT INTACT	MEZZANINE	16	9/24/2014 14:39	mg / cm ^2	0.02	0.07
177	WALL	WHITE	BRICK	А	NOT INTACT	MEZZANINE	16	9/24/2014 14:40	mg / cm ^2	0.02	0.02
178	DOOR	GRAY	WOOD	А	NOT INTACT	MEZZANINE	17	9/24/2014 14:46	mg / cm ^2	0.02	0.05
179	CERAMIC BLOCK WALL	WHITE	CONCRETE	D	NOT INTACT	MEZZANINE	17	9/24/2014 14:48	mg / cm ^2	0	0.02
180	BATHROOM PARTITION	GRAY	METAL	D	NOT INTACT	MEZZANINE	17	9/24/2014 14:49	mg / cm ^2	0.02	0.06
181	DOOR	GRAY	WOOD	А	NOT INTACT	MEZZANINE	17	9/24/2014 14:50	mg / cm ^2	0.02	0.04
182	DOOR	GRAY	WOOD	В	NOT INTACT	MEZZANINE	17	9/24/2014 14:50	mg / cm ^2	0.03	0.06
183	WALL	YELLOW	BRICK	В	NOT INTACT	MEZZANINE	17	9/24/2014 14:52	mg / cm ^2	0.05	0.02
184	TURNSTILE	WHITE	METAL	А	NOT INTACT	MEZZANINE	17	9/24/2014 14:54	mg / cm ^2	0.01	0.07
185	SHELVES	GREEN	WOOD	D	NOT INTACT	FIRST	18	9/24/2014 14:57	mg / cm ^2	0.4	0.3
186	DOOR	GRAY	WOOD	D	NOT INTACT	FIRST	18	9/24/2014 14:58	mg / cm ^2	2.8	1.7
187	DOOR	GRAY	WOOD	С	NOT INTACT	FIRST	18	9/24/2014 14:58	mg / cm ^2	0.19	0.22
188	WALL	GRAY	CONCRETE	С	NOT INTACT	FIRST	18	9/24/2014 14:59	mg / cm ^2	2.6	1.5
189	WALL	WHITE	CONCRETE	С	NOT INTACT	FIRST	18	9/24/2014 15:00	mg / cm ^2	0.7	0.3
190	WALL	GREEN	BRICK	D	NOT INTACT	FIRST	18	9/24/2014 15:01	mg / cm ^2	0.03	0.02
191	WALL	WHITE	BRICK	В	NOT INTACT	FIRST	19	9/24/2014 15:05	mg / cm ^2	0.17	0.03
192	WALL	WHITE	BRICK	В	NOT INTACT	FIRST	19	9/24/2014 15:05	mg / cm ^2	0.07	0.08
193	COLUMN	GREEN	METAL	В	NOT INTACT	FIRST	19	9/24/2014 15:06	mg / cm ^2	2.3	1.5
194	COLUMN	GREEN	METAL	В	NOT INTACT	FIRST	19	9/24/2014 15:07	mg / cm ^2	5	3.3
195	DOOR	GRAY	WOOD	В	NOT INTACT	FIRST	19	9/24/2014 15:08	mg / cm ^2	0	0.02
196	DOOR	GRAY	WOOD	А	NOT INTACT	FIRST	19	9/24/2014 15:09	mg / cm ^2	0.12	0.22
197	STAIRS	GRAY	METAL	А	NOT INTACT	FIRST	19	9/24/2014 15:09	mg / cm ^2	0.25	0.14
198	HAND RAIL	GRAY	METAL	А	NOT INTACT	SECOND	20	9/24/2014 15:11	mg / cm ^2	0.4	0.2
199	COLUMN	GRAY	METAL	Α	NOT INTACT	SECOND	20	9/24/2014 15:11	mg / cm ^2	3.7	2.1
200	WALL	WHITE	BRICK	D	NOT INTACT	SECOND	20	9/24/2014 15:13	mg / cm ^2	0.3	0.68
201	WALL	WHITE	BRICK	А	NOT INTACT	THIRD	21	9/24/2014 15:17	mg / cm ^2	0.14	0.06
202	DOOR	WHITE	METAL	В	NOT INTACT	THIRD	21	9/24/2014 15:18	mg / cm ^2	4.2	2.4
203	COLUMN	GRAY	METAL	В	NOT INTACT	THIRD	21	9/24/2014 15:18	mg / cm ^2	3.8	2.3
204	DOOR	GRAY	WOOD	А	NOT INTACT	THIRD	21	9/24/2014 15:21	mg / cm ^2	0.02	0.06
205	DOOR	GRAY	WOOD	А	NOT INTACT	THIRD	21	9/24/2014 15:21	mg / cm ^2	0.04	0.08
206	WALL	GRAY	BRICK	А	NOT INTACT	SECOND	22	9/24/2014 15:39	mg / cm ^2	0.01	0.02
207	WALL	GRAY	BRICK	А	NOT INTACT	SECOND	22	9/24/2014 15:39	mg / cm ^2	0.04	0.07
208	WALL	WHITE	BRICK	А	NOT INTACT	SECOND	22	9/24/2014 15:40	mg / cm ^2	0.03	0.05
209	COLUMN	WHITE	METAL	Α	NOT INTACT	SECOND	22	9/24/2014 15:40	mg / cm ^2	2	. 1
210	DOOR	GRAY	WOOD	D	NOT INTACT	SECOND	22	9/24/2014 15:41	_	0.12	0.22
211	DOOR	GRAY	WOOD	С	NOT INTACT	SECOND	22	9/24/2014 15:42	-	0.12	

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			_		1000 Harvard Av	enue					
Reading					Cleveland, Oh	io					
No.	Component	Color	Substrate	Side	Condition	Floor	Room	Time	Units	PbC	PbC Error
212	WALL	RED	BRICK	D	NOT INTACT	SECOND	22	9/24/2014 15:	14 mg / cm ^2	0.23	0.0
213	WALL	BLUE	BRICK	D	NOT INTACT	SECOND	23	9/24/2014 15:	45 mg / cm ^2	0.27	0.0
214	WALL	BEIGE	BRICK	D	NOT INTACT	SECOND	23	9/24/2014 15:	46 mg / cm ^2	0.5	0.
215	DOOR	GREEN	WOOD	Α	NOT INTACT	SECOND	23	9/24/2014 15:	46 mg / cm ^2	0.01	0.0
216	DOOR	BLUE	WOOD	С	NOT INTACT	SECOND	24	9/24/2014 15:	48 mg / cm ^2	0	0.0
217	DOOR	BLUE	WOOD	С	NOT INTACT	SECOND	24	9/24/2014 15:	48 mg / cm ^2	0.01	0.0
218	WALL	BLUE	BRICK	В	NOT INTACT	SECOND	24	9/24/2014 15:	19 mg / cm ^2	0	0.0
219	WALL	WHITE	BRICK	В	NOT INTACT	SECOND	24	9/24/2014 15:	50 mg / cm ^2	0.3	0.2
220	COLUMN	WHITE	METAL	В	NOT INTACT	SECOND	24	9/24/2014 15:	52 mg / cm ^2	0.04	0.1
221	RISER PIPE	WHITE	METAL	А	NOT INTACT	SECOND	24	9/24/2014 15:	54 mg / cm ^2	0	0.0
222	WINDOW FRAME	WHITE	METAL	А	NOT INTACT	SECOND	24	9/24/2014 15:	54 mg / cm ^2	0.01	0.0
223	WALL	BLUE	CONCRETE	В	NOT INTACT	SECOND	24	9/24/2014 15:	55 mg / cm ^2	4.6	3.4
224	DOOR	BLUE	WOOD	В	NOT INTACT	SECOND	24	9/24/2014 15:	55 mg / cm ^2	0.19	0.0
225	DOOR FRAME	GREEN	WOOD	D	NOT INTACT	SECOND	25	9/24/2014 15:	56 mg / cm ^2	0.09	0.13
226	WALL	BLUE	CONCRETE	D	NOT INTACT	SECOND	25	9/24/2014 15:	59 mg / cm ^2	0.5	0.1
227	WALL	BLUE	CONCRETE	А	NOT INTACT	SECOND	25	9/24/2014 15:	59 mg / cm ^2	0.23	0.00
228	SHELVES	BLUE	WOOD	В	INTACT	SECOND	25	9/24/2014 16:	00 mg / cm ^2	0.26	0.23
229	PADS	BLACK	CONCRETE	В	INTACT	SECOND	25	9/24/2014 16:	01 mg / cm ^2	0.12	0.17
230	DOOR	BEIGE	WOOD	С	NOT INTACT	SECOND	25	9/24/2014 16:	02 mg / cm ^2	0.4	0.3
231	DOOR	BROWN	WOOD	А	NOT INTACT	SECOND	26	9/24/2014 16:	03 mg / cm ^2	0	0.02
232	DOOR	GRAY	WOOD	А	NOT INTACT	SECOND	26	9/24/2014 16:	03 mg / cm ^2	0.4	0.4
233	COLUMN	BEIGE	METAL	А	NOT INTACT	SECOND	26	9/24/2014 16:	04 mg / cm ^2	0.03	0.0
234	WALL	BEIGE	CONCRETE	D	NOT INTACT	SECOND	26	9/24/2014 16:	05 mg / cm ^2	0.04	0.03
235	WALL	GRAY	CONCRETE	D	NOT INTACT	SECOND	26	9/24/2014 16:	05 mg / cm ^2	1.8	0.
236	DOOR ELEVATOR	GRAY	METAL	В	NOT INTACT	SECOND	26	9/24/2014 16:	06 mg / cm ^2	0.4	0.4
237	SLOP SINK	GRAY	METAL	D	NOT INTACT	SECOND	26	9/24/2014 16:	07 mg / cm ^2	0.9	0.:
238	SLOP SINK	GRAY	CONCRETE	D	NOT INTACT	SECOND	26	9/24/2014 16:	08 mg / cm ^2	1	0.:
239	DOOR	GRAY	METAL	С	NOT INTACT	SECOND	26	9/24/2014 16:	10 mg / cm ^2	0	0.0
240	WALL	GRAY	BRICK	С	NOT INTACT	SECOND	26	9/24/2014 16:	11 mg / cm ^2	0	0.02
241	WALL	GRAY	BRICK	С	NOT INTACT	SECOND	26	9/24/2014 16:	12 mg / cm ^2	0	0.0
242	WALL	GRAY	BRICK	В	NOT INTACT	SECOND	26	9/24/2014 16:	12 mg / cm ^2	0	0.0
243	WINDOW FRAME	BEIGE	METAL	В	NOT INTACT	SECOND	26	9/24/2014 16:		0	0.0
244	COLUMN	BEIGE	METAL	А	NOT INTACT	SECOND	26	9/24/2014 16:	13 mg / cm ^2	0.01	0.0
245	COLUMN	RED	METAL	А	NOT INTACT	SECOND	27	9/24/2014 16:	_	0.02	0.0
246	DOOR	GRAY	WOOD	С	NOT INTACT	SECOND	27	9/24/2014 16:	_	0.08	0.1
247	DOOR	WHITE	WOOD	С	NOT INTACT	SECOND	27	9/24/2014 16:		0.11	0.1
248	WINDOW BOARD OVER OPENING	GRAY	WOOD	С	INTACT	SECOND	27	9/24/2014 16:		0	0.0
249	DOOR	GRAY	WOOD	С	NOT INTACT	SECOND	27	9/24/2014 16:		0	
	BRACKET	WHITE	METAL	C	NOT INTACT	SECOND	27	9/24/2014 16:		0.01	

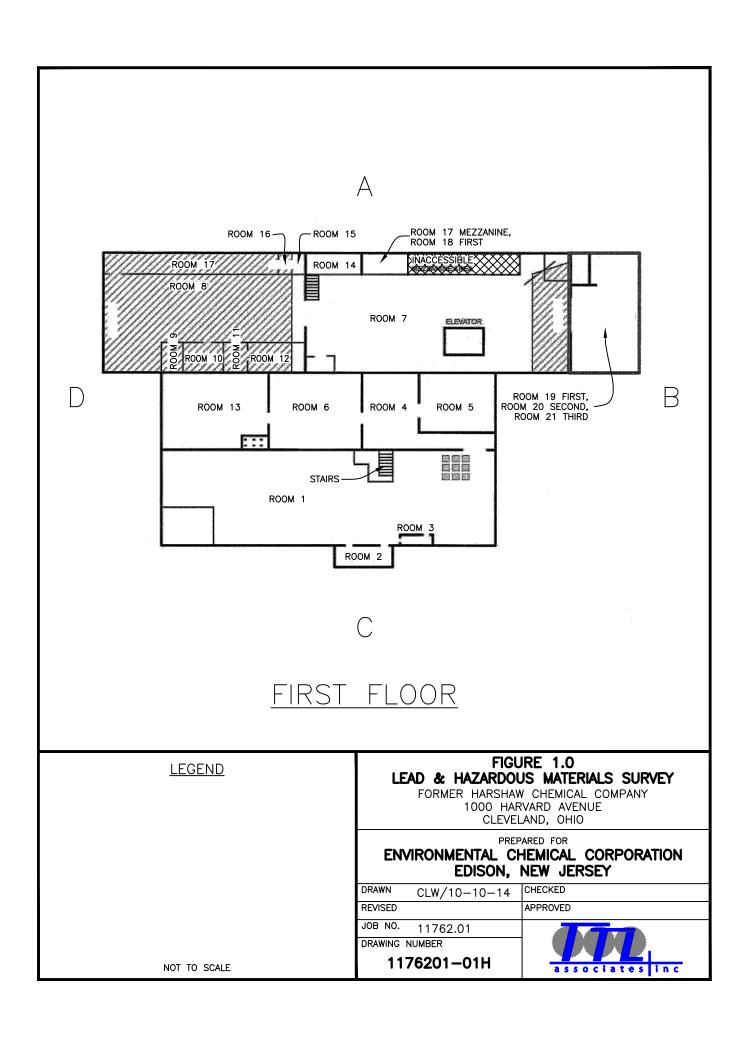
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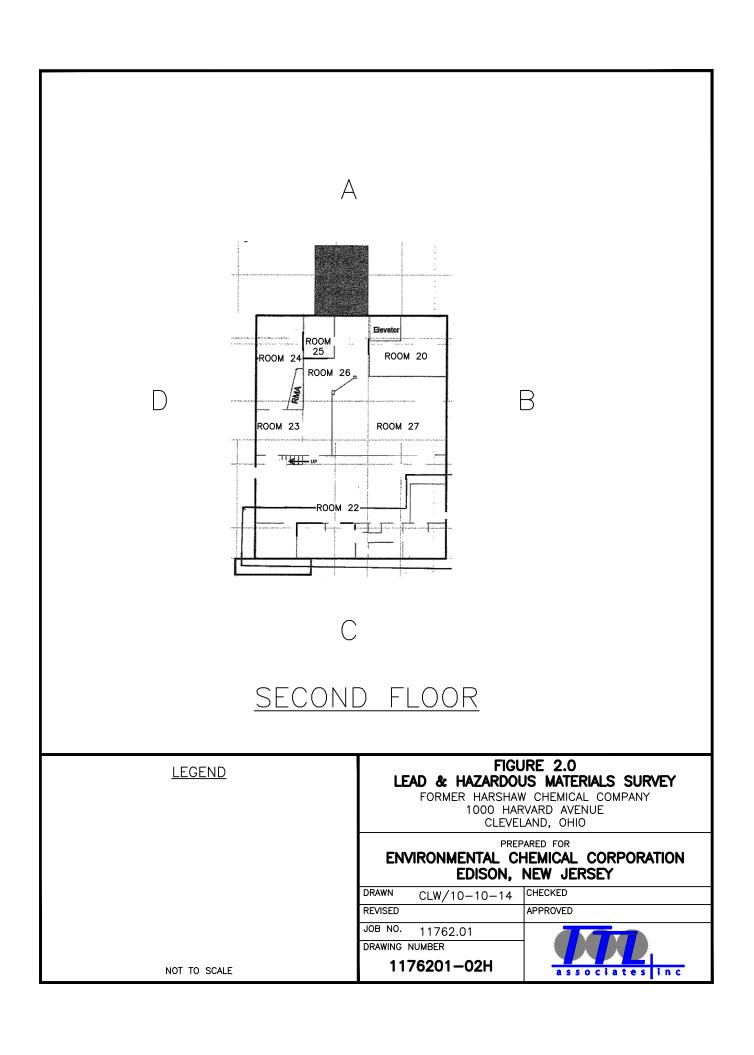
	<del>,</del>				1000 Harvard Av	enue		1			
Reading					Cleveland, Oh	io					
No.	Component	Color	Substrate	Side	Condition	Floor	Room	Time	Units	PbC	PbC Error
251	BRACKET	GRAY	METAL	С	NOT INTACT	SECOND	27	9/24/2014 16:57	mg / cm ^2	0	0.02
252	TIE LINE BOX	GRAY	METAL	С	NOT INTACT	SECOND	27	9/24/2014 16:58	mg / cm ^2	0	0.02
253	TIE LINE BOX	GRAY	METAL	С	NOT INTACT	SECOND	27	9/24/2014 16:58	mg / cm ^2	0.02	0.12
254	TIE LINE BOX	GRAY	METAL	С	NOT INTACT	SECOND	27	9/24/2014 16:58	mg / cm ^2	0	0.03
255	WINDOW BOARD OVER	GRAY	WOOD	С	INTACT	SECOND	27	9/24/2014 17:01	mg / cm ^2	0	0.02
256	WINDOW BOARD OVER	GRAY	WOOD	В	INTACT	SECOND	27	9/24/2014 17:01	mg / cm ^2	0	0.02
257	DOOR	RED	METAL	В	NOT INTACT	SECOND	27	9/24/2014 17:02	mg / cm ^2	0.03	0.13
258	WALL	BEIGE	BRICK	Α	NOT INTACT	SECOND	27	9/24/2014 17:05	mg / cm ^2	0.01	0.02
259	WALL	BLACK	BRICK	А	NOT INTACT	SECOND	27	9/24/2014 17:05	mg / cm ^2	0.05	0.04
260	WALL	BLACK	CONCRETE	А	NOT INTACT	SECOND	27	9/24/2014 17:06	mg / cm ^2	0.06	0.03

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## APPENDIX F LEAD AND HAZARDOUS MATERIALS SURVEY MAPS







## APPENDIX G HAZARDOUS MATERIALS SURVEY SUMMARY TABLE



# HAZARDOUS MATERIALS TABLE FORMER HARSHAW CHEMICAL CORPORATION 1000 HARVARD AVENUE CLEVELAND, OHIO TTL PROJECT NO. 11762.01

	Exterior	First Floor	Second Floor	Third Level High Bay	Total
Mercury Vapor Light Bulbs	11	1	3	3	18
Fluorescent Light Bulbs	0	0	4 + a pile in Room 24 not estimated	0	4 + a pile in Room 24 not estimated
Ballasts	0	0	4 + a pile in Room 24 not estimated	109	113 + a pile in Room 24 not estimated
Halogen Flood Lights	2	0	0	0	2
Large Bus Fuses	4	0	0	0	4
Radioactive Waste	Piles	and Areas	Through-Out Qua	ntity Not E	stimated