

**PCB CAULK ENVIRONMENTAL SCREENING
and
XRF LEAD-BASED PAINT SURVEY**

**Access and Activation Civic Improvement Project
Buffalo Outer Harbor
Terminal B
Buffalo, New York 14203**

Volume 2 of 4

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EXECUTIVE SUMMARY

A PCB Caulk Environmental Screening and XRF Lead-Based Paint Survey were conducted for Trowbridge Wolf Michaels Landscape Architects, LLP (TWMLA) at the Buffalo Outer Harbor (BOH), Terminal B, Fuhrmann Blvd, Buffalo, New York.

PCB CAULK

The caulk materials that were sampled and analyzed for asbestos content determination (identified in Volume 1 of this report) were also sampled and analyzed for PCB content determination. Two (2) caulk samples were collected and submitted to EHS Laboratories, Inc. (EHS) for analysis. Neither of the two (2) samples analyzed were found to be above the regulatory threshold for PCB waste (≥ 50 ppm).

XRF LEAD-BASED PAINT SURVEY

Environmental Testing & Consulting Inc. (ETC) performed an XRF Lead-Based Paint Survey as a subcontractor to Ravi Engineering & Land Surveying, P.C. at the Buffalo Outer Harbor. The focus of this inspection was to provide a general knowledge of locations of lead-based paint.

Lead-based paint was not identified on any of the surfaces tested. Please find ETC's XRF Lead-based Paint Survey in its entirety in Attachment C.

1.0 INTRODUCTION

Ravi Engineering & Land Surveying, P.C. (RE&LS) conducted a PCB Caulk Environmental Screening for TWMLA at the BOH Terminal B. The Screening was conducted from February to March 2017.

2.0 PROJECT OVERVIEW

The Environmental Screening was conducted to identify PCB containing caulks/sealants that may be impacted by future renovation activities. A scope of renovation has yet to be developed for Terminal B. PCB caulk sampling focused on damaged caulks/sealants that would most likely be impacted by future renovations.

3.0 PCB CAULK SAMPLING/FINDINGS

Two (2) caulk samples were collected and submitted to EHS for PCB content determination. A copy of EHS's certification is included in Attachment D. Bulk sample locations are found in Attachment A. The following table identifies caulks that were sampled and analyzed for PCBs.

Table 1.1 – PCB CAULK SAMPLING RESULTS – TERMINAL B

Material Description	Sample Number	Result
Gray pliable exterior door caulk	PCB-001	<19 ppm
Gray pliable exterior seam caulk	PCB-002	<20 ppm

<: denotes result is below the laboratory detection limit or "non-detect"

None of the samples analyzed were found to be above the regulatory threshold for PCB waste (≥ 50 ppm).

The USEPA defines PCB bulk waste as, "waste derived from manufacturing products containing PCB's in a non-liquid state, at any concentration where concentration at the time of designation for disposal was ≥ 50 ppm PCB's."

4.0 LIMITATIONS OF INVESTIGATION

Only accessible areas were inspected as part of this survey. Not all suspect caulks/sealants were tested as part of this Environmental Screening. The inspection was limited to damaged caulks/sealants that would most likely be impacted by future renovations.

5.0 RECOMMENDATIONS

Any sealant or caulk materials encountered during future renovation that were not identified in this Screening should be assumed to be PCB containing until laboratory results prove otherwise.

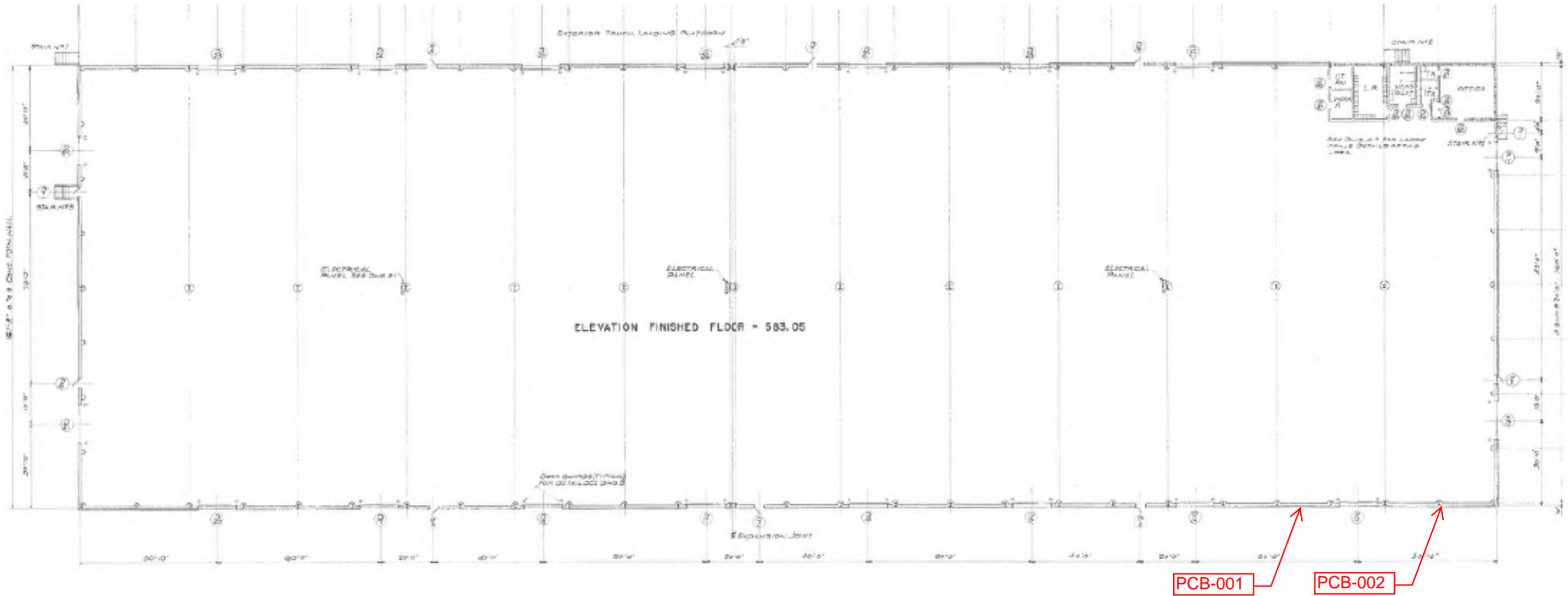
OSHA 29 CFR 1926.62 must be followed by contractors working on painted surfaces that contain lead paint.

ATTACHMENT A

*Areas of Inspection/Bulk Sample Location Plan
Terminal B*

*PCB CAULK ENVIRONMENTAL SCREENING
AND XRF LEAD-BASED PAINT SURVEY*

**Buffalo Outer Harbor
Fuhrmann Boulevard
Buffalo, New York**



TERMINAL B



2110 SOUTH CLINTON AVENUE, SUITE 1 ROCHESTER, NEW YORK 14618
 TL: (585) 223-3660 FX (585) 223-4250

BUFFALO OUTER HARBOR
 FUHRMANN BOULEVARD, BUFFALO, NY
 PCB ENVIRONMENTAL SCREEN

ATTACHMENT A: AREAS OF INSPECTION/BULK SAMPLE LOCATION PLANS

PROJECT NO.
 20-16-204

DATE:
 APRIL
 2017

SCALE:
 N.T.S.

DRAWING NO:
 DWG-03

ATTACHMENT B

*Analytical Report and Chain of Custody Form
Terminal B*

*PCB CAULK ENVIRONMENTAL SCREENING
AND XRF LEAD-BASED PAINT SURVEY*

**Buffalo Outer Harbor
Fuhrmann Boulevard
Buffalo, New York**



PCB Bulk Analysis Report

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

Report Number: 17-03-02373

Client: Ravi Engineering
2110 South Clinton Ave
Suite 1
Rochester, NY 14618

Received Date: 03/17/2017

Reported Date: 03/24/2017

Project/Test Address: Project #: 20-16-204; Buffalo Outer Harbor-Terminal B;
Buffalo, NY

Client Number:
201209

Fax Number:

Laboratory Results

Lab Sample Number: 17-03-02373-001
Client Sample Number: PCB-001
Sample Matrix: Caulk
Reporting Limit (mg/kg): 19

Preparation Date: 03/22/2017
Analysis Date: 03/24/2017
Sample Weight (g): 1.063
Narrative ID:

Aroclor 1016 (mg/kg)	Aroclor 1221 (mg/kg)	Aroclor 1232 (mg/kg)	Aroclor 1242 (mg/kg)	Aroclor 1248 (mg/kg)	Aroclor 1254 (mg/kg)	Aroclor 1260 (mg/kg)	Aroclor 1262 (mg/kg)	Aroclor 1268 (mg/kg)
<19	<19	<19	<19	<19	<19	<19	<19	<19

Lab Sample Number: 17-03-02373-002
Client Sample Number: PCB-002
Sample Matrix: Caulk
Reporting Limit (mg/kg): 20

Preparation Date: 03/22/2017
Analysis Date: 03/24/2017
Sample Weight (g): 1.008
Narrative ID:

Aroclor 1016 (mg/kg)	Aroclor 1221 (mg/kg)	Aroclor 1232 (mg/kg)	Aroclor 1242 (mg/kg)	Aroclor 1248 (mg/kg)	Aroclor 1254 (mg/kg)	Aroclor 1260 (mg/kg)	Aroclor 1262 (mg/kg)	Aroclor 1268 (mg/kg)
<20	<20	<20	<20	<20	<20	<20	<20	<20

Environmental Hazards Services, L.L.C

Client Number: 201209

Report Number: 17-03-02373

Project/Test Address: Project #: 20-16-204; Buffalo Outer Harbor-Terminal B;
Buffalo, NY

Sample Narratives:

Preparation Method: EPA SW846 3540C

Analysis Method: EPA SW846 8082A



Reviewed By Authorized Signatory: _____

Julie Dickerson

Laboratory Administrator

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. All internal quality control requirements associated with the batch were met, unless otherwise noted. Results represent the analysis of samples submitted by the client. Unless otherwise noted, samples are reported without a dry weight correction. 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. Virginia Certification #460172 NY ELAP #11714.

Legend g = gram mg/kg = milligram per kilogram



EHS Laboratories™

Environmental Hazards Services, LLC

www.leadlab.com
(800) 347-4010
(804) 275-4907 (fax)

7469 Whitepine Rd
Richmond, VA 23237

PCB Chain-of-Custody

Ravi Project #: 40-16-179

17-03-02373



Due Date:
03/24/2017
(Friday)
AE

Company Name: Ravi Engineering & Land Survey

Address: 2110 S. Clinton Ave, Suite 1

City/State/Zip: Rochester, NY 14618

Phone: (585) 223-3660 Fax: (585) 697-1764

E-mail: AHill@Ravieng.com

Acct. Number: 201209

Project Name / Testing Address: Buffalo Outer Harbor-Terminal B

City/State (Required): Buffalo, New York

LAB USE: Cooler Receipt Info: Sufficient Ice: Yes/No Temp: _____

Containers Preserved: Yes/No If no, explain Ravi Project #: 20-16-204

Custody seal present/intact: Yes/No Initials: _____ Date: _____

Turn Around Times: If no TAT is specified, sample(s) will be processed and charged as 5 - day TAT.

1 - Day _____ 2 - Day _____ 3 - Day _____ X 5 - Day _____

No.	Client Sample ID	Location	Collection Date	Collection Time	Method	Matrix						Media	Area Sampled (cm ²) Or Air Volume (L)	Grab or Composite	# of Containers
						Wipe	Air	Caulk	Oil	Soil	Water				
1	PCB-001	West Est Door	3/9/17		SOXHLET			X						Grab	1
2	PCB-002	West Est metal stair			SOXHLET			X						Grab	1
3															
4															
5															
6															
7															
8															
9															
10															

Released by: Anthony Hill

Signature: [Signature]

Date/Time: 3/14/17

Received by: _____

ATTACHMENT C

*ETC XRF Lead-Based Paint Survey Report
Terminal B*

*PCB CAULK ENVIRONMENTAL SCREENING
AND XRF LEAD-BASED PAINT SURVEY*

**Buffalo Outer Harbor
Fuhrmann Boulevard
Buffalo, New York**

Lead-Based Paint Survey Report

REPORT NUMBER: 030117 0934

INSPECTION FOR: Ravi Engineering & Land Surveying, P.C.
2110 South Clinton Ave., Suite 1
Rochester, NY 14618

PERFORMED AT: Buffalo Outer Harbor
Port Terminal A
Warehouse B
Administration Building
Buffalo, NY 14203

INSPECTION DATE: March 1, 2017

INSTRUMENT TYPE: RMD Model LPA-1
XRF TYPE ANALYZER
Serial Nos. 1133

ACTION LEVEL: 1.0 mg / cm²

OPERATORS LICENSE: EPA Risk Assessor
certified under Section 402 of TSCA

ENVIRONMENTAL TESTING & CONSULTING INC.

PO Box 466

Batavia, New York 14021

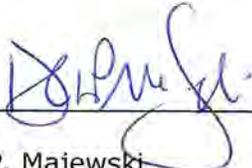
certification # NY-2011-5

585.344.2430

dmajewskietc@rochester.twcbc.com

www.lead-etc.com

Staff of **ENVIRONMENTAL TESTING & CONSULTING INC (ETC)** have performed this LBP inspection survey in a thorough and professional manner consistent with commonly accepted standard industry practices, using state of the art practices and best available known technology, as of the date of the inspection. This report has been produced in accordance with accepted guidelines based upon the *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, revised 2012*. All measurements contained within are accurate to the best of our knowledge. It is the responsibility of the client to know and abide by all applicable laws, regulations, and standards.

SIGNED:  DATE: 3/6/17
David P. Majewski
EPA Risk Assessor
NY-R-4289-6

SIGNED: _____ DATE: 3/6/17
Noah D. Majewski
EPA Risk Assessor
LBP-R-128530-1

EXECUTIVE SUMMARY

ENVIRONMENTAL TESTING & CONSULTING is providing environmental support to Ravi Engineering & Land Surveying, P.C., by providing XRF testing for Lead-Based Paint at the Buffalo Outer Harbor, including Port Terminal A, Warehouse B & Administration Building, Buffalo, NY 14203. A limited representative XRF survey was conducted of accessible areas and building components. This survey is not to be interpreted as representative of surfaces, which were not included within the scope of this survey.

David P. Majewski, license # NY-R-4289-6 and Noah D. Majewski, license #LBP-R-128530-1 EPA Certified Risk Assessors, performed the inspection on March 1, 2017.

The report is presented in a manner representative of the sequence with which the readings were taken. The survey report includes analytical methods and limitations, discussions of XRF inspection procedures, an explanation of identifying abbreviations and components and three reports. The first report is a *Summary Report*, listing only the tested surfaces where a measurement equal to or greater than the EPA's action level of 1.0 mg / cm² exists. The second report is a *Detailed Report*, listing all measurements taken on a room-by-room basis. The third report is a *Distribution Report*, which provides statistical data on the components tested.

The results of the inspection indicate that lead in the amounts equal to or greater than 1.0 mg/cm² are evident primarily on certain:

BUILDING	COMPONENTS
Port Terminal A	angle iron, door jamb, 2 nd level: brick walls, I-beams, & elevator door frame
Administration building	brick walls & door components

These are identified in detail as part of the *Summary Reports* included in the succeeding pages.

Any construction or maintenance operations, which would disturb lead-based paint, should be addressed as per SED requirements pursuant to protocols detailed in the OSHA, *Construction Standard for Lead*, 29 CFR 1926.62.

If there are any questions or clarifications pertaining to the information contained in this report, or if we may be of any other assistance, please feel free to contact us.

XRF SURVEY METHODS

PROTOCOL - Based on *HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 7, revised 2012*.

INSPECTION – A limited room by room interior XRF inspection survey was conducted for suspect lead-based paint of accessible areas and building components.

SAMPLING – Suspect materials were grouped so as to be homogeneous; that is, any suspect material that appeared to be the same age, type and apparent paint history was assumed to be the same material. Surfaces were randomly tested to be representative of each categorized material. All sampled surfaces were recorded, as well as stored in the memory of the XRF unit. Typical tested surfaces include: walls, ceilings, doors, windows, casements, structural members, etc. Paint condition was not addressed. Color is used as an additional identifier, in an effort to assist in component identification. Colors are named relative to the colors of the space being tested. Spaces not tested were either typical to the adjacent space, unfinished or inaccessible. Color identification is not a requirement of the HUD Guidelines.

XRF METHODOLOGY - X-Ray Fluorescence (XRF) is a common analytical technique used to quantitatively measure the concentration level of elements in solid or liquid materials. In this technique, the sample is bombarded by some form of ionizing radiation such as X-rays or gamma rays, which can cause the atoms of the sample to emit characteristic X-rays. These characteristic X-rays from the sample, known as fluorescent X-rays can be detected and analyzed to provide information as to what concentration of atoms are contained in the sample. Atoms of every element emit a unique pattern of X-rays when they are excited by energy of X or gamma rays. The atom is excited when the primary bombarding radiation has sufficient energy to completely remove an electron from the inner shell of the atom. The atom then relaxes to its original state by emitting an X-ray with a specific energy level, known as fluorescence, which is characteristic to that element.

REPORTING

Sample readings on various testing combinations are stored in memory of the XRF analyzer and combined with other site-specific information supplied by the operator to generate the final report data.

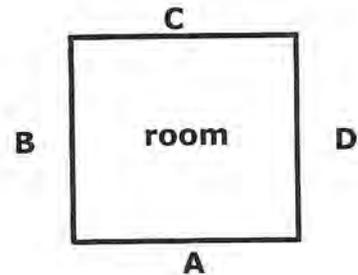
Lead results are expressed in milligrams per square centimeter (mg/cm^2), with results equal to or greater than $1.0 \text{ mg}/\text{cm}^2$ being considered positive for lead-based paint.

Report definitions:

Room Name – Denotes the individual room name and number (if applicable).

Reading Number – The number generated by the XRF corresponding to the reading (sample) taken.

Wall – Indicates the component side identification location. The Side Identification System is used to locate any wall or building component (structure) in a specific room. This system uses an A/B/C/D designation. The "A" side being the wall running parallel and nearest the front (address) side of building and the succeeding walls identified in a clockwise manner around the room, B/C/D.



Structure – Identifies the building component sampled.

Location – Identifies the location of the structure sampled with reference to: left, center or right; upper or lower, as the wall is viewed from the center of the room.

Member – Additional details of the structure.

Paint Condition – Paint Condition was not considered in this survey.

Substrate – Material the component is made from; beneath paint film coating.

Color – Visible color of paint film.

Lead– Sample analysis results, lead concentration in mg/cm^2 .

Mode – Sample function of XRF instrument.

*Buffalo Outer Harbor
Port Terminal A
Summary Report*

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17 Buffalo Outer Harbor
 Report Date: 3/4/2017 Port Terminal A
 Abatement Level: 1.1 Buffalo, New York 14203
 Report No. 03/01/17 09:34
 Total Readings: 189 Actionable: 17
 Job Started: 03/01/17 09:34
 Job Finished: 03/01/17 13:31

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Interior Room 001 Room 1									
018	C	Angle	Iron	Ctr	I	Metal	Yellow	1.9	QM
Interior Room 005 Room 5									
087	D	Door		Lft Rgt jamb	I	Metal	Green	2.0	QM
Comment: Readings 63, 84, 89, 102 & 122 were embedded in the wall. Reading 65 was taken at the base of the wall. Reading 98 was taken at the guard around the sprinkler pipe.									
Interior Room 009 Room 9									
181	B	Wall		L Ctr	I	Brick	White	1.7	QM
182	B	Wall		L Ctr	I	Brick	White	1.5	QM
180	B	Wall		L Rgt	I	Brick	White	1.7	QM
186	B	I-Beam		Lft	I	Metal	Blue	1.1	QM
183	B	I-Beam		Ctr	I	Metal	White	2.5	QM
184	B	I-Beam		Ctr	I	Metal	White	2.1	QM
158	B	ElevatorDrFr		Rgt	I	Metal	Green	3.3	QM
179	D	Wall		L Lft	I	Brick	White	1.8	QM
Comment: Readings 147, 153, 157, 183, 184 & 186 were embedded in the wall.									
Interior Room 010 Room 10									
165	D	Wall		L Lft	I	Brick	LtBlue	2.3	QM
164	D	Wall		L Ctr	I	Brick	White	>9.9	QM
163	D	Wall		L Rgt	I	Brick	White	2.8	QM
Comment: Reading 161 was embedded in the the wall.									
Interior Room 011 Room 11									
173	A	Wall		L Lft	I	Brick	White	1.7	QM
176	A	Wall		L Rgt	I	Brick	White	2.0	QM
175	C	Wall		L Lft	I	Brick	White	1.8	QM
174	C	Wall		L Ctr	I	Brick	White	1.9	QM
Comment: Reading 172 was embedded in the wall.									
Calibration Readings									
----- End of Readings -----									

*Buffalo Outer Harbor
Administration Building
Summary Report*

SUMMARY REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17 Buffalo Outer Harbor
 Report Date: 3/4/2017 Administration Building
 Abatement Level: 1.1 Buffalo, New York 14203
 Report No. 03/01/17 14:37
 Total Readings: 84 Actionable: 11
 Job Started: 03/01/17 14:37
 Job Finished: 03/01/17 15:46

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Interior Room 007 Room 7									
041	C	Wall	L Ctr		I	Brick	White	1.5	QM
044	C	Wall	L Rgt		I	Brick	White	1.5	QM
046	C	Door	Lft	Lft jamb	I	Metal	White	1.9	QM
047	C	Door	Lft	U Lft	I	Metal	White	7.6	QM
Comment: Reading 45 was embedded in the wall.									
Interior Room 008 Boiler Rm									
057	A	Wall	L Rgt		I	Brick	OffWhite	1.5	QM
058	A	Wall	L Rgt		I	Brick	OffWhite	1.7	QM
053	A	Door	Lft	Lft casing	I	Metal	OffWhite	4.0	QM
052	A	Door	Lft	L Ctr	I	Metal	OffWhite	7.9	QM
048	A	Door	Ctr	Lft casing	I	Metal	White	2.2	QM
049	A	Door	Ctr	L Ctr	I	Metal	White	>9.9	QM
059	B	Wall	L Lft		I	Brick	OffWhite	1.8	QM

Calibration Readings

----- End of Readings -----

*Buffalo Outer Harbor
Port Terminal A
Detailed Report*

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17
 Report Date: 3/4/2017
 Abatement Level: 1.1
 Report No. 03/01/17 09:34
 Total Readings: 189
 Job Started: 03/01/17 09:34
 Job Finished: 03/01/17 13:31

Buffalo Outer Harbor
 Port Terminal A
 Buffalo, New York 14203

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Interior Room 001 Room 1									
046	A	Wall	L Lft		I	ConcBlock	White	-0.1	QM
044	A	Door	Lft	Rgt casing	I	Metal	Green	-0.1	QM
045	A	Door	Lft	L Ctr	I	Metal	Green	-0.1	QM
020	A	I-Beam	Lft		I	Metal	Yellow	0.5	QM
004	A	I-Beam	Rgt		I	Metal	Yellow	0.1	QM
006	B	Wall	L Lft		I	Brick	White	-0.1	QM
049	B	Wall	L Lft		I	Brick	White	0.0	QM
007	B	Wall	L Ctr		I	ConcBlock	White	-0.2	QM
014	B	Wall	L Rgt		I	ConcBlock	White	-0.2	QM
015	B	Wall	L Rgt		I	Brick	White	-0.3	QM
048	B	Wall	U Lft		I	ConcBlock	White	-0.1	QM
009	B	Door	Lft	Lft casing	I	Metal	Green	-0.1	QM
008	B	Door	Lft	L Lft	I	Metal	Green	-0.1	QM
005	B	I-Beam	Lft		I	Metal	Yellow	0.0	QM
010	B	I-Beam	Lft		I	Metal	White	0.3	QM
050	B	Pipe Bollard	Lft		I	Metal	Yellow	0.6	QM
051	B	I-Beam	Lft		I	Metal	Yellow	0.0	QM
052	B	Angle Iron	Lft		I	Metal	White	0.6	QM
011	B	I-Beam	Ctr		I	Metal	Yellow	0.0	QM
012	B	I-Beam	Rgt		I	Metal	Yellow	0.5	QM
013	B	I-Beam	Rgt		I	Metal	White	0.0	QM
016	C	Wall	L Lft		I	Brick	White	-0.1	QM
017	C	Wall	L Ctr		I	ConcBlock	White	-0.1	QM
018	C	Angle Iron	Ctr		I	Metal	Yellow	1.9	QM
019	C	SprinklerPi	Ctr		I	Metal	Red	-0.1	QM
021	C	I-Beam	Ctr		I	Metal	Yellow	0.6	QM
022	C	I-Beam	Ctr		I	Metal	White	0.0	QM
023	D	Wall	L Lft		I	Brick	White	-0.3	QM
024	D	Wall	L Lft		I	Drywall	White	-0.1	QM
032	D	Wall	L Lft		I	ConcBlock	White	-0.1	QM
036	D	Wall	L Ctr		I	ConcBlock	White	-0.1	QM
047	D	Wall	L Rgt		I	ConcBlock	White	-0.2	QM
037	D	Wall	U Ctr		I	Drywall	White	0.0	QM
031	D	Door	Lft	Rgt casing	I	Metal	Green	0.3	QM
030	D	Door	Lft	U Ctr	I	Metal	Green	0.2	QM
042	D	Door	Rgt	Lft casing	I	Metal	Green	0.2	QM
043	D	Door	Rgt	U Lft	I	Metal	Green	0.1	QM
025	D	Pipe Bollard	Lft		I	Metal	Yellow	-0.2	QM
026	D	Angle Iron	Lft		I	Metal	Yellow	0.5	QM
033	D	OverhdDrJam	Lft		I	Metal	Yellow	0.0	QM
034	D	Angle Iron	Ctr		I	Metal	Yellow	-0.1	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
035	D	SprinklerPi	Ctr		I	Metal	Red	0.3	QM
039	D	Angle Iron	Rgt		I	Metal	Yellow	0.0	QM
040	D	I-Beam	Rgt		I	Metal	Yellow	0.5	QM
041	D	SprinklerPi	Rgt		I	Metal	Red	0.0	QM
038	D	I-Beam	Ctr		I	Metal	Yellow	0.6	QM
Interior Room 002 Grinding Rm									
027	A	Wall	L Lft		I	Drywall	White	-0.1	QM
028	C	Wall	L Rgt		I	Drywall	White	-0.1	QM
029	D	I-Beam	Ctr		I	Metal	Yellow	0.0	QM
Interior Room 003 Boiler Rm									
053	A	Wall	U Rgt		I	ConcBlock	White	-0.3	QM
055	B	Door	Lft	Lft jamb	I	Metal	Gray	-0.3	QM
056	B	Door	Lft	U Lft	I	Metal	Gray	0.0	QM
054	D	Wall	L Rgt		I	ConcBlock	Brown	-0.3	QM
Interior Room 004 Boiler Rm									
059	A	Wall	L Lft		I	Brick	White	-0.1	QM
060	B	Wall	U Lft		I	ConcBlock	White	-0.1	QM
057	B	Door	Lft	Rgt casing	I	Metal	Gray	-0.2	QM
058	B	Door	Lft	L Ctr	I	Metal	Blue	0.2	QM
Interior Room 005 Room 5									
092	A	Wall	L Lft		I	Drywall	LtBlue	-0.2	QM
105	A	Wall	L Lft		I	ConcBlock	White	0.0	QM
106	A	Wall	L Lft		I	Brick	White	-0.1	QM
061	A	Wall	L Rgt		I	ConcBlock	White	0.1	QM
093	A	Window	Lft	Lft casing	I	Wood	Blue	0.1	QM
094	A	Door	Lft	Lft casing	I	Metal	Blue	-0.2	QM
095	A	Door	Lft	L Ctr	I	Metal	Blue	0.0	QM
096	A	Pipe Bollard	Lft		I	Metal	Yellow	-0.2	QM
097	A	I-Beam	Lft		I	Metal	Yellow	-0.1	QM
098	A	Angle Iron	Lft		I	Metal	Yellow	-0.1	QM
107	A	SprinklerPi	Lft		I	Metal	Red	-0.1	QM
108	A	I-Beam	Lft		I	Metal	Yellow	-0.1	QM
063	A	I-Beam	Rgt		I	Metal	White	0.3	QM
066	A	Handrail	Rgt		I	Metal	Yellow	0.4	QM
062	B	Wall	L Lft		I	Brick	White	-0.2	QM
067	B	Wall	L Ctr		I	Drywall	White	-0.1	QM
068	B	Wall	L Rgt		I	Drywall	White	0.2	QM
064	B	Pipe Bollard	Lft		I	Metal	Yellow	0.2	QM
065	B	Toe Kick	Lft		I	Metal	Yellow	-0.1	QM
069	C	Wall	L Lft		I	Brick	White	0.1	QM
070	C	Wall	L Ctr		I	ConcBlock	White	0.3	QM
071	C	I-Beam	Ctr		I	Metal	Yellow	0.3	QM
072	C	I-Beam	Rgt		I	Metal	Yellow	0.2	QM
073	C	I-Beam	Rgt		I	Metal	Yellow	0.2	QM
083	D	Wall	L Lft		I	ConcBlock	White	0.0	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
085	D	Wall	L Lft		I	Brick	White	-0.1	QM
090	D	Wall	L Ctr		I	Brick	White	0.2	QM
091	D	Wall	L Ctr		I	ConcBlock	White	0.0	QM
099	D	Wall	L Rgt		I	ConcBlock	LtBlue	-0.1	QM
100	D	Wall	L Rgt		I	ConcBlock	White	0.0	QM
101	D	Wall	L Rgt		I	Brick	White	0.0	QM
123	D	Window	Rgt	Sash	I	Metal	White	0.5	QM
087	D	Door	Lft	Rgt jamb	I	Metal	Green	2.0	QM
086	D	Door	Lft	U Ctr	I	Metal	Green	-0.1	QM
104	D	Door	Rgt	Rgt casing	I	Metal	Green	0.2	QM
103	D	Door	Rgt	U Ctr	I	Metal	Green	0.0	QM
084	D	I-Beam	Lft		I	Metal	White	0.0	QM
088	D	Door Lintel	Lft		I	Metal	White	-0.2	QM
089	D	I-Beam	Ctr		I	Metal	White	0.5	QM
102	D	I-Beam	Rgt		I	Metal	White	0.2	QM
122	D	I-Beam	Rgt		I	Metal	White	0.0	QM

Comment:

Readings 63, 84, 89, 102 & 122 were embedded in the wall.

Reading 65 was taken at the base of the wall. Reading 98 was taken at the guard around the sprinkler pipe.

Interior Room 006 Carton Room

075	A	Wall	L Lft		I	ConcBlock	White	-0.2	QM
074	A	I-Beam	Lft		I	Metal	White	0.3	QM
082	A	I-Beam	Rgt		I	Metal	White	0.2	QM
080	B	Wall	L Rgt		I	ConcBlock	White	0.2	QM
081	B	I-Beam	Ctr		I	Metal	Yellow	0.2	QM
079	C	Wall	L Lft		I	ConcBlock	White	-0.1	QM
077	C	Wall	L Rgt		I	Brick	Orange	-0.1	QM
078	C	I-Beam	Rgt		I	Metal	White	0.3	QM
076	D	Wall	L Rgt		I	Brick	White	0.0	QM

Comment:

Readings 74, 78 & 82 were embedded in the wall.

Interior Room 007 Office Area

115	A	Wall	L Lft		I	Drywall	White	0.0	QM
117	A	Wall	L Rgt		I	Concrete	White	0.0	QM
119	A	Wall	L Rgt		I	Clay Tile	White	0.0	QM
118	B	Wall	L Lft		I	Concrete	White	0.0	QM
113	B	Wall	L Rgt		I	ConcBlock	Blue	-0.2	QM
114	B	Wall	U Rgt		I	ConcBlock	White	-0.2	QM
121	B	Door	Rgt	Lft casing	I	Metal	White	-0.1	QM
120	B	Door	Rgt	U Lft	I	Metal	White	-0.1	QM
110	C	Wall	L Rgt		I	Brick	Blue	-0.2	QM
109	C	Wall	U Rgt		I	Brick	White	0.1	QM
111	C	Door	Rgt	Rgt jamb	I	Metal	Blue	-0.1	QM
112	C	Door	Rgt	U Rgt	I	Metal	Blue	0.2	QM
116	D	Wall	L Rgt		I	Drywall	White	0.2	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Interior Room 008 Office Area									
124	A	Wall	L Rgt		I	Drywall	White	0.4	QM
133	A	Wall	U Lft		I	Drywall	White	0.0	QM
136	A	Baseboard	Lft		I	Wood	Stained	-0.2	QM
126	A	Partition	Lft		I	Wood	Stained	-0.1	QM
125	B	Wall	L Lft		I	Drywall	White	-0.2	QM
127	C	Wall	L Ctr		I	Wood	Stained	0.0	QM
131	C	Wall	L Rgt		I	Drywall	White	-0.2	QM
128	C	Wall	U Ctr		I	Drywall	White	0.0	QM
134	C	Door	Rgt	Rgt casing	I	Wood	Stained	0.0	QM
135	C	Door	Rgt	L Rgt	I	Wood	Stained	-0.2	QM
130	C	Door	Ctr	Lft jamb	I	Metal	Blue	-0.1	QM
129	C	Door	Ctr	U Ctr	I	Metal	Blue	-0.1	QM
132	D	Wall	L Lft		I	Drywall	White	0.1	QM
Interior Room 009 Room 9									
142	A	Wall	L Rgt		I	Brick	Blue	0.5	QM
141	A	Wall	U Rgt		I	Brick	White	0.0	QM
140	A	Door	Rgt	Lft casing	I	Metal	Blue	-0.1	QM
139	A	Door	Rgt	U Ctr	I	Metal	Blue	-0.1	QM
137	A	Pipe Bollard	Rgt		I	Metal	Yellow	-0.1	QM
138	A	I-Beam	Rgt		I	Metal	Yellow	-0.1	QM
185	B	Wall	L Lft		I	Brick	Blue	0.6	QM
181	B	Wall	L Ctr		I	Brick	White	1.7	QM
182	B	Wall	L Ctr		I	Brick	White	1.5	QM
156	B	Wall	L Rgt		I	Brick	White	-0.1	QM
180	B	Wall	L Rgt		I	Brick	White	1.7	QM
186	B	I-Beam	Lft		I	Metal	Blue	1.1	QM
183	B	I-Beam	Ctr		I	Metal	White	2.5	QM
184	B	I-Beam	Ctr		I	Metal	White	2.1	QM
157	B	I-Beam	Rgt		I	Metal	White	0.1	QM
158	B	ElevatorDrFr	Rgt		I	Metal	Green	3.3	QM
159	B	ElevatorDr	Rgt		I	Metal	Green	-0.3	QM
155	C	Wall	U Ctr		I	ConcBlock	White	0.0	QM
160	C	Door	Lft	Lft casing	I	Metal	Yellow	-0.1	QM
154	C	I-Beam	Rgt		I	Metal	Yellow	-0.2	QM
179	D	Wall	L Lft		I	Brick	White	1.8	QM
152	D	Wall	L Ctr		I	Brick	Blue	-0.2	QM
143	D	Wall	L Rgt		I	Drywall	Blue	0.1	QM
146	D	Wall	L Rgt		I	ConcBlock	Blue	-0.1	QM
151	D	Wall	U Ctr		I	Brick	White	-0.1	QM
144	D	Wall	U Rgt		I	Drywall	White	0.0	QM
145	D	Wall	U Rgt		I	Brick	White	0.2	QM
148	D	Door	Ctr	Rgt casing	I	Metal	Blue	0.5	QM
150	D	Door	Ctr	L Ctr	I	Wood	Blue	0.4	QM
153	D	I-Beam	Lft		I	Metal	White	0.0	QM
149	D	Door Lintel	Ctr		I	Metal	White	0.3	QM
147	D	I-Beam	Rgt		I	Metal	White	0.4	QM

Comment:

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
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Readings 147, 153, 157, 183, 184 & 186 were embedded in the wall.

Interior Room 010 Room 10

162	A	Wall	L Rgt		I	ConcBlock	White	-0.2	QM
161	A	I-Beam	Rgt		I	Metal	White	0.4	QM
169	B	Wall	L Rgt		I	ConcBlock	White	0.2	QM
170	B	Door	Ctr	Lft jamb	I	Metal	Yellow	0.6	QM
167	C	Wall	L Ctr		I	Brick	White	-0.1	QM
166	C	Wall	L Rgt		I	Brick	LtBlue	0.1	QM
168	C	Wall	U Lft		I	ConcBlock	White	0.0	QM
165	D	Wall	L Lft		I	Brick	LtBlue	2.3	QM
164	D	Wall	L Ctr		I	Brick	White	>9.9	QM
163	D	Wall	L Rgt		I	Brick	White	2.8	QM

Comment:

Reading 161 was embedded in the the wall.

Interior Room 011 Room 11

173	A	Wall	L Lft		I	Brick	White	1.7	QM
176	A	Wall	L Rgt		I	Brick	White	2.0	QM
171	A	I-Beam	Lft		I	Metal	Yellow	0.2	QM
172	A	I-Beam	Lft		I	Metal	White	-0.1	QM
177	B	Wall	L Rgt		I	ConcBlock	White	0.6	QM
175	C	Wall	L Lft		I	Brick	White	1.8	QM
174	C	Wall	L Ctr		I	Brick	White	1.9	QM
178	D	Wall	L Rgt		I	ConcBlock	White	0.1	QM

Comment:

Reading 172 was embedded in the wall.

Calibration Readings

001								1.7	QM
002								1.8	QM
003								1.8	QM
187								1.7	QM
188								1.6	QM
189								1.6	QM

---- End of Readings ----

*Buffalo Outer Harbor
Warehouse B
Detailed Report*

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17
 Report Date: 3/4/2017
 Abatement Level: 1.1
 Report No. 03/01/17 13:32
 Total Readings: 53
 Job Started: 03/01/17 13:32
 Job Finished: 03/01/17 14:37

Buffalo Outer Harbor
 Warehouse B
 Buffalo, New York 14203

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Interior Room 001 Warehouse B									
005	A	Wall	L Lft		I	Concrete	White	-0.1	QM
011	A	Wall	L Lft		I	ConcBlock	White	-0.1	QM
016	A	Wall	L Ctr		I	Concrete	White	-0.1	QM
018	A	Wall	L Ctr		I	ConcBlock	White	-0.2	QM
019	A	Wall	L Rgt		I	ConcBlock	White	-0.1	QM
020	A	Wall	L Rgt		I	Concrete	White	0.0	QM
006	A	Wall	U Lft		I	Wood	White	-0.1	QM
017	A	Wall	U Ctr		I	Wood	White	-0.1	QM
021	A	Wall	U Rgt		I	Wood	White	-0.1	QM
012	A	Door	Lft	Lft casing	I	Metal	Brown	-0.1	QM
013	A	Door	Lft	L Ctr	I	Metal	Brown	-0.1	QM
009	A	Angle Iron	Lft		I	Metal	White	-0.2	QM
010	A	I-Beam	Lft		I	Metal	White	0.3	QM
014	A	I-Beam	Ctr		I	Metal	White	-0.2	QM
015	A	Angle Iron	Ctr		I	Metal	White	0.0	QM
022	A	I-Beam	Rgt		I	Metal	White	0.0	QM
023	A	Angle Iron	Rgt		I	Metal	White	-0.1	QM
026	B	Wall	L Lft		I	Concrete	White	0.0	QM
033	B	Wall	L Rgt		I	ConcBlock	White	0.1	QM
027	B	Wall	U Lft		I	Wood	White	-0.1	QM
030	B	Door	Lft	Lft jamb	I	Metal	Brown	-0.1	QM
029	B	Door	Lft	U Rgt	I	Metal	Brown	0.0	QM
024	B	Angle Iron	Lft		I	Metal	White	0.0	QM
025	B	I-Beam	Lft		I	Metal	White	0.0	QM
031	B	I-Beam	Rgt		I	Metal	White	-0.1	QM
032	B	Angle Iron	Rgt		I	Metal	White	-0.1	QM
035	B	Access Panel	Rgt		I	Metal	White	-0.1	QM
028	B	Pipe Bollard	Lft		I	Metal	Yellow	0.3	QM
034	C	Wall	L Lft		I	ConcBlock	White	0.3	QM
043	C	Wall	L Ctr		I	ConcBlock	White	-0.1	QM
044	C	Wall	L Rgt		I	ConcBlock	White	0.2	QM
042	C	Door	Ctr	Rgt casing	I	Metal	Brown	-0.1	QM
041	C	Door	Ctr	U Ctr	I	Metal	Brown	0.1	QM
036	C	Pipe Bollard	Lft		I	Metal	Yellow	-0.1	QM
037	C	Angle Iron	Lft		I	Metal	Yellow	0.3	QM
038	C	I-Beam	Lft		I	Metal	White	-0.2	QM
039	C	Angle Iron	Ctr		I	Metal	Yellow	0.3	QM
040	C	Pipe Bollard	Ctr		I	Metal	Yellow	0.1	QM
045	D	Wall	L Lft		I	Concrete	White	0.0	QM
004	D	Wall	L Rgt		I	Concrete	White	-0.1	QM
046	D	Wall	U Lft		I	Wood	White	-0.2	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
007	D	Wall	U Rgt		I	Wood	White	-0.1	QM
047	D	Door	Lft	Lft casing	I	Metal	Brown	-0.2	QM
048	D	Door	Lft	L Ctr	I	Metal	Brown	-0.1	QM
049	D	Pipe Bollard	Lft		I	Metal	Yellow	-0.1	QM
050	D	I-Beam	Lft		I	Metal	White	0.3	QM
008	D	Angle Iron	Rgt		I	Metal	White	-0.1	QM

Comment:

Readings 37 & 39 were mounted on the floor. Readings 8, 9, 15, 23, 24 & 32 were cross members.

Calibration Readings

001								2.1	QM
002								1.8	QM
003								2.2	QM
051								1.6	QM
052								1.7	QM
053								1.8	QM

----- End of Readings -----

*Buffalo Outer Harbor
Administration Building
Detailed Report*

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17
 Report Date: 3/4/2017
 Abatement Level: 1.1
 Report No. 03/01/17 14:37
 Total Readings: 84
 Job Started: 03/01/17 14:37
 Job Finished: 03/01/17 15:46

Buffalo Outer Harbor
 Administration Building
 Buffalo, New York 14203

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
Interior Room 001 Office									
005	A	Wall	L Lft		I	Drywall	OffWhite	0.3	QM
006	A	Baseboard	Lft		I	Wood	OffWhite	0.1	QM
008	A	Window	Lft	Sill	I	Wood	OffWhite	0.0	QM
009	B	Window	Lft	Lft casing	I	Wood	OffWhite	0.0	QM
004	C	Wall	L Lft		I	Drywall	White	-0.1	QM
011	C	Door	Rgt	U Ctr	I	Wood	Stained	0.1	QM
007	D	Door	Rgt	Lft casing	I	Wood	OffWhite	0.1	QM
010	D	Closet	Ctr	Shelf	I	Wood	OffWhite	0.1	QM
Interior Room 002 Office									
016	C	Wall	U Rgt		I	Drywall	OffWhite	0.0	QM
015	D	Wall	L Ctr		I	Drywall	OffWhite	0.2	QM
013	D	Door	Rgt	Lft jamb	I	Wood	OffWhite	0.0	QM
012	D	Door	Rgt	U Lft	I	Wood	Stained	0.1	QM
014	D	CrownMolding	Rgt		I	Wood	OffWhite	0.0	QM
Interior Room 003 Toilet RM									
017	A	Wall	L Rgt		I	Drywall	OffWhite	-0.1	QM
021	A	Door	Lft	Rgt casing	I	Wood	OffWhite	0.0	QM
018	B	Wall	L Rgt		I	Drywall	OffWhite	0.0	QM
020	B	Window	Rgt	Rgt casing	I	Wood	OffWhite	0.0	QM
019	B	Window	Rgt	Sill	I	Wood	OffWhite	0.0	QM
Interior Room 004 Toilet RM									
022	A	Partition	Lft		I	Wood	OffWhite	0.2	QM
024	B	Vanity	Rgt		I	Wood	OffWhite	0.2	QM
025	C	Wall	L Ctr		I	Drywall	OffWhite	-0.1	QM
026	D	Wall	U Rgt		I	Drywall	OffWhite	0.1	QM
023	D	Door	Lft	Rgt jamb	I	Wood	OffWhite	-0.1	QM
Interior Room 005 Office									
027	A	Wall	U Ctr		I	Drywall	OffWhite	-0.1	QM
031	B	I-Beam	Lft		I	Metal	White	-0.3	QM
028	C	Wall	L Ctr		I	Drywall	OffWhite	-0.1	QM
029	C	Baseboard	Ctr		I	Wood	White	-0.2	QM
030	C	CrownMolding	Ctr		I	Wood	White	-0.2	QM
Comment: Reading 31 was embedded in the wall.									
Interior Room 006 Storage									
034	A	Door	Rgt	Lft jamb	I	Wood	OffWhite	0.1	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
032	B	Wall	L Lft		I	Drywall	OffWhite	-0.1	QM
033	C	Wall	U Rgt		I	Drywall	OffWhite	0.3	QM
Interior Room 007 Room 7									
039	B	Wall	L Lft		I	Drywall	OffWhite	0.0	QM
038	B	Door	Ctr	L Lft	I	Wood	Stained	-0.2	QM
036	B	Door	Rgt	Rgt casing	I	Wood	OffWhite	-0.1	QM
037	B	Door	Rgt	Lft jamb	I	Wood	OffWhite	-0.1	QM
041	C	Wall	L Ctr		I	Brick	White	1.5	QM
044	C	Wall	L Rgt		I	Brick	White	1.5	QM
040	C	Wall	U Lft		I	Drywall	OffWhite	0.1	QM
035	C	Baseboard	Lft		I	Wood	OffWhite	0.2	QM
046	C	Door	Lft	Lft jamb	I	Metal	White	1.9	QM
047	C	Door	Lft	U Lft	I	Metal	White	7.6	QM
042	D	Wall	L Lft		I	Brick	White	0.0	QM
043	D	Wall	L Lft		I	ConcBlock	White	-0.1	QM
045	D	I-Beam	Lft		I	Metal	White	0.1	QM
Comment:									
Reading 45 was embedded in the wall.									
Interior Room 008 Boiler Rm									
057	A	Wall	L Rgt		I	Brick	OffWhite	1.5	QM
058	A	Wall	L Rgt		I	Brick	OffWhite	1.7	QM
053	A	Door	Lft	Lft casing	I	Metal	OffWhite	4.0	QM
052	A	Door	Lft	L Ctr	I	Metal	OffWhite	7.9	QM
048	A	Door	Ctr	Lft casing	I	Metal	White	2.2	QM
049	A	Door	Ctr	L Ctr	I	Metal	White	>9.9	QM
059	B	Wall	L Lft		I	Brick	OffWhite	1.8	QM
060	B	Partition	Ctr		I	Wood	White	-0.1	QM
056	C	Wall	L Rgt		I	Brick	OffWhite	0.1	QM
051	C	Door	Ctr	Rgt jamb	I	Metal	White	0.0	QM
050	C	Door	Ctr	U Rgt	I	Metal	White	-0.1	QM
055	D	Wall	L Lft		I	Brick	OffWhite	0.3	QM
054	D	Wall	U Rgt		I	Brick	LtGray	-0.1	QM
Interior Room 009 Basement									
061	A	Wall	L Rgt		I	Concrete	White	0.1	QM
062	B	Wall	U Ctr		I	Concrete	White	0.0	QM
064	D	Stairs	Lft	Wall	I	Concrete	White	0.0	QM
063	D	Stairs	Lft	Stringer	I	Wood	White	0.2	QM
Interior Room 010 Garage									
065	A	Wall	L Rgt		I	Brick	OffWhite	0.5	QM
073	A	Door	Ctr	Lft jamb	I	Metal	OffWhite	-0.2	QM
074	A	Door	Ctr	U Lft	I	Metal	OffWhite	-0.1	QM
071	A	Door	Rgt	Rgt casing	I	Wood	OffWhite	0.0	QM
072	A	Door	Rgt	U Rgt	I	Wood	OffWhite	-0.1	QM
066	B	Wall	L Lft		I	Brick	OffWhite	0.4	QM
067	C	Wall	L Ctr		I	Brick	OffWhite	0.0	QM

DETAILED REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Reading No.	Wall	Structure	Location	Member	Paint Cond	Substrate	Color	Lead (mg/cm ²)	Mode
069	C	Door	Lft	Lft casing	I	Metal	Brown	-0.2	QM
070	C	Door	Lft	L Ctr	I	Metal	Brown	0.3	QM
068	D	Wall	L	Lft	I	Brick	OffWhite	0.1	QM
081	D	I-Beam		Ctr	I	Metal	Gray	0.1	QM

Comment:

Reading 81 was embedded in the wall.

Interior Room 011 Office

079	C	Wall		U Ctr	I	Brick	White	-0.1	QM
080	C	Floor			I	Wood	Gray	-0.1	QM
077	C	Ceiling			I	Drywall	OffWhite	-0.1	QM
076	C	Door		Rgt Rgt casing	I	Wood	White	0.0	QM
075	C	Door		Rgt U Ctr	I	Wood	White	-0.1	QM
078	D	Wall		L Ctr	I	Drywall	White	-0.1	QM

Calibration Readings

001								1.7	QM
002								1.6	QM
003								1.8	QM
082								1.8	QM
083								1.7	QM
084								1.8	QM

---- End of Readings ----

*Buffalo Outer Harbor
Port Terminal A
Distribution Report*

DISTRIBUTION REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17
 Report Date: 3/4/2017
 Abatement Level: 1.1
 Report No. 03/01/17 09:34
 Total Reading Sets: 183
 Job Started: 03/01/17 09:34
 Job Finished: 03/01/17 13:31

Buffalo Outer Harbor
 Port Terminal A
 Buffalo, New York 14203

Structure	Total	Structure Distribution		
		Positive	Negative	Inconclusive
Angle Iron	6	1 <17%>	5 <83%>	0 <0%>
Baseboard	1	0 <0%>	1 <100%>	0 <0%>
Door L Ctr	4	0 <0%>	4 <100%>	0 <0%>
Door L Lft	1	0 <0%>	1 <100%>	0 <0%>
Door L Rgt	1	0 <0%>	1 <100%>	0 <0%>
Door Lft casing	6	0 <0%>	6 <100%>	0 <0%>
Door Lft jamb	3	0 <0%>	3 <100%>	0 <0%>
Door Lintel	2	0 <0%>	2 <100%>	0 <0%>
Door Rgt casing	6	0 <0%>	6 <100%>	0 <0%>
Door Rgt jamb	2	1 <50%>	1 <50%>	0 <0%>
Door U Ctr	5	0 <0%>	5 <100%>	0 <0%>
Door U Lft	3	0 <0%>	3 <100%>	0 <0%>
Door U Rgt	1	0 <0%>	1 <100%>	0 <0%>
ElevatorDr	1	0 <0%>	1 <100%>	0 <0%>
ElevatorDrFr	1	1 <100%>	0 <0%>	0 <0%>
Handrail	1	0 <0%>	1 <100%>	0 <0%>
I-Beam	38	3 <8%>	35 <92%>	0 <0%>
OverhdDrJam	1	0 <0%>	1 <100%>	0 <0%>
Partition	1	0 <0%>	1 <100%>	0 <0%>
Pipe Bollard	5	0 <0%>	5 <100%>	0 <0%>
SprinklerPi	4	0 <0%>	4 <100%>	0 <0%>
Toe Kick	1	0 <0%>	1 <100%>	0 <0%>
Wall	87	11 <13%>	76 <87%>	0 <0%>
Window Lft casing	1	0 <0%>	1 <100%>	0 <0%>
Window Sash	1	0 <0%>	1 <100%>	0 <0%>
Inspection Totals:	183	17 < 9%>	166 < 91%>	0 < 0%>

*Buffalo Outer Harbor
Warehouse B
Distribution Report*

DISTRIBUTION REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17 Buffalo Outer Harbor
 Report Date: 3/4/2017 Warehouse B
 Abatement Level: 1.1 Buffalo, New York 14203
 Report No. 03/01/17 13:32
 Total Reading Sets: 47
 Job Started: 03/01/17 13:32
 Job Finished: 03/01/17 14:37

Structure	Total	----- Structure Distribution -----		
		Positive	Negative	Inconclusive
Access Panel	1	0 <0%>	1 <100%>	0 <0%>
Angle Iron	8	0 <0%>	8 <100%>	0 <0%>
Door L Ctr	2	0 <0%>	2 <100%>	0 <0%>
Door Lft casing	2	0 <0%>	2 <100%>	0 <0%>
Door Lft jamb	1	0 <0%>	1 <100%>	0 <0%>
Door Rgt casing	1	0 <0%>	1 <100%>	0 <0%>
Door U Ctr	1	0 <0%>	1 <100%>	0 <0%>
Door U Rgt	1	0 <0%>	1 <100%>	0 <0%>
I-Beam	7	0 <0%>	7 <100%>	0 <0%>
Pipe Bollard	4	0 <0%>	4 <100%>	0 <0%>
Wall	19	0 <0%>	19 <100%>	0 <0%>
Inspection Totals:	47	0 < 0%>	47 <100%>	0 < 0%>

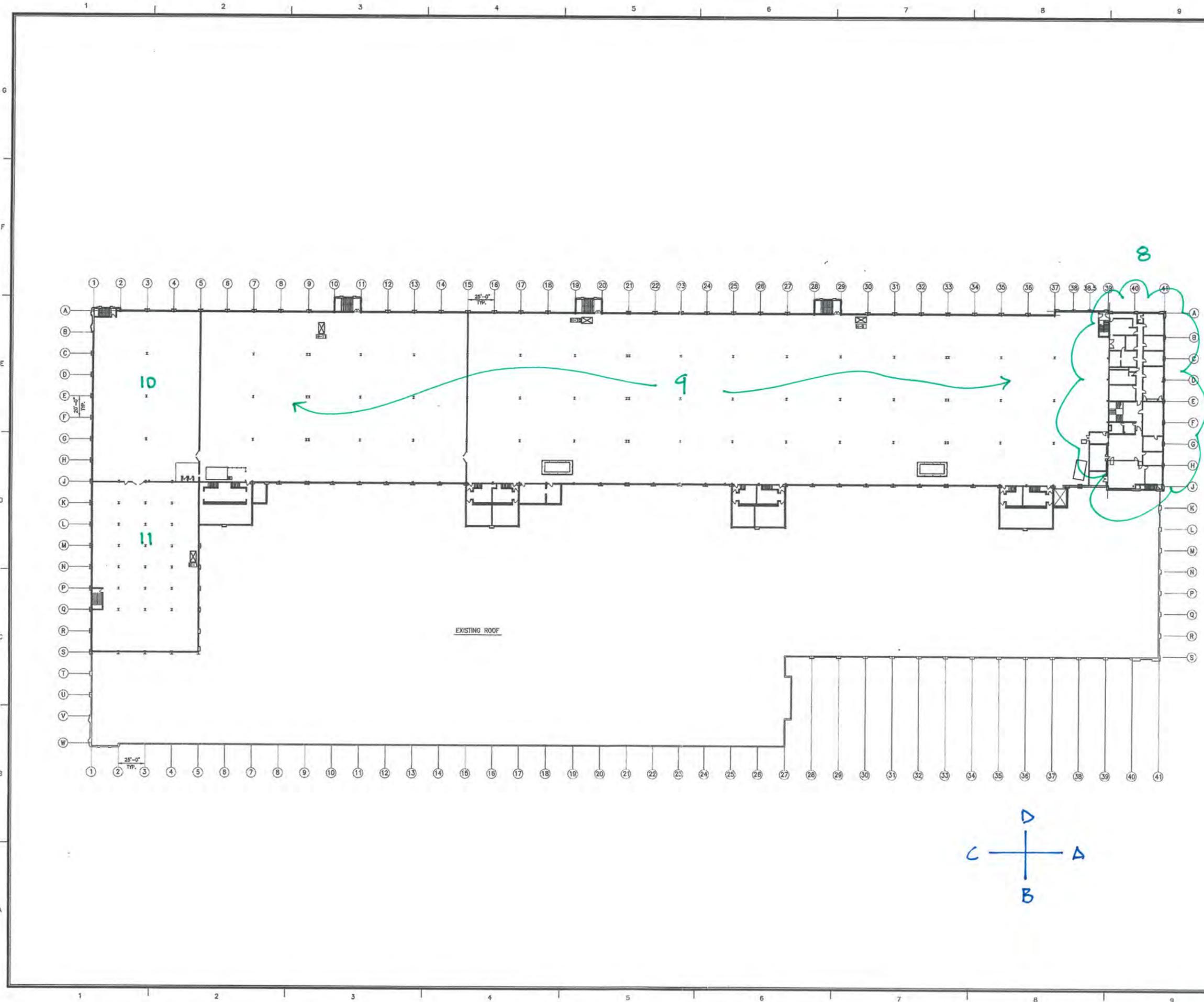
*Buffalo Outer Harbor
Administration Building
Distribution Report*

DISTRIBUTION REPORT OF LEAD PAINT INSPECTION FOR: Ravi Engineering & Land Surveying

Inspection Date: 03/01/17
 Report Date: 3/4/2017
 Abatement Level: 1.1
 Report No. 03/01/17 14:37
 Total Reading Sets: 78
 Job Started: 03/01/17 14:37
 Job Finished: 03/01/17 15:46

Buffalo Outer Harbor
 Administration Building
 Buffalo, New York 14203

Structure	Total	Structure Distribution			
		Positive	Negative	Inconclusive	
Baseboard	3	0 <0%>	3 <100%>	0 <0%>	
Ceiling	1	0 <0%>	1 <100%>	0 <0%>	
Closet Shelf	1	0 <0%>	1 <100%>	0 <0%>	
CrownMolding	2	0 <0%>	2 <100%>	0 <0%>	
Door L Ctr	3	2 <67%>	1 <33%>	0 <0%>	
Door L Lft	1	0 <0%>	1 <100%>	0 <0%>	
Door Lft casing	4	2 <50%>	2 <50%>	0 <0%>	
Door Lft jamb	5	1 <20%>	4 <80%>	0 <0%>	
Door Rgt casing	4	0 <0%>	4 <100%>	0 <0%>	
Door Rgt jamb	2	0 <0%>	2 <100%>	0 <0%>	
Door U Ctr	2	0 <0%>	2 <100%>	0 <0%>	
Door U Lft	3	1 <33%>	2 <67%>	0 <0%>	
Door U Rgt	2	0 <0%>	2 <100%>	0 <0%>	
Floor	1	0 <0%>	1 <100%>	0 <0%>	
I-Beam	3	0 <0%>	3 <100%>	0 <0%>	
Partition	2	0 <0%>	2 <100%>	0 <0%>	
Stairs Stringer	1	0 <0%>	1 <100%>	0 <0%>	
Stairs Wall	1	0 <0%>	1 <100%>	0 <0%>	
Vanity	1	0 <0%>	1 <100%>	0 <0%>	
Wall	32	5 <16%>	27 <84%>	0 <0%>	
Window Lft casing	1	0 <0%>	1 <100%>	0 <0%>	
Window Rgt casing	1	0 <0%>	1 <100%>	0 <0%>	
Window Sill	2	0 <0%>	2 <100%>	0 <0%>	
Inspection Totals:	78	11 < 14%>	67 < 86%>	0 < 0%>	




 Niagara Frontier
 Transportation Authority
 Serving Buffalo Niagara

Port Terminal 'A'
 General

MARK	DATE	DESCRIPTION
EC	07/16/09	Existing Conditions

ISSUE:

NFTA PROJECT NO:	P0000
DESIGNER PROJECT NO:	N/A
CAD DWG FILE:	A-102.DWG
DRAWN BY:	J.H.B.
CHECKED BY:	H.W.M.
SCALE:	1/32" = 1'-0"
COPYRIGHT:	

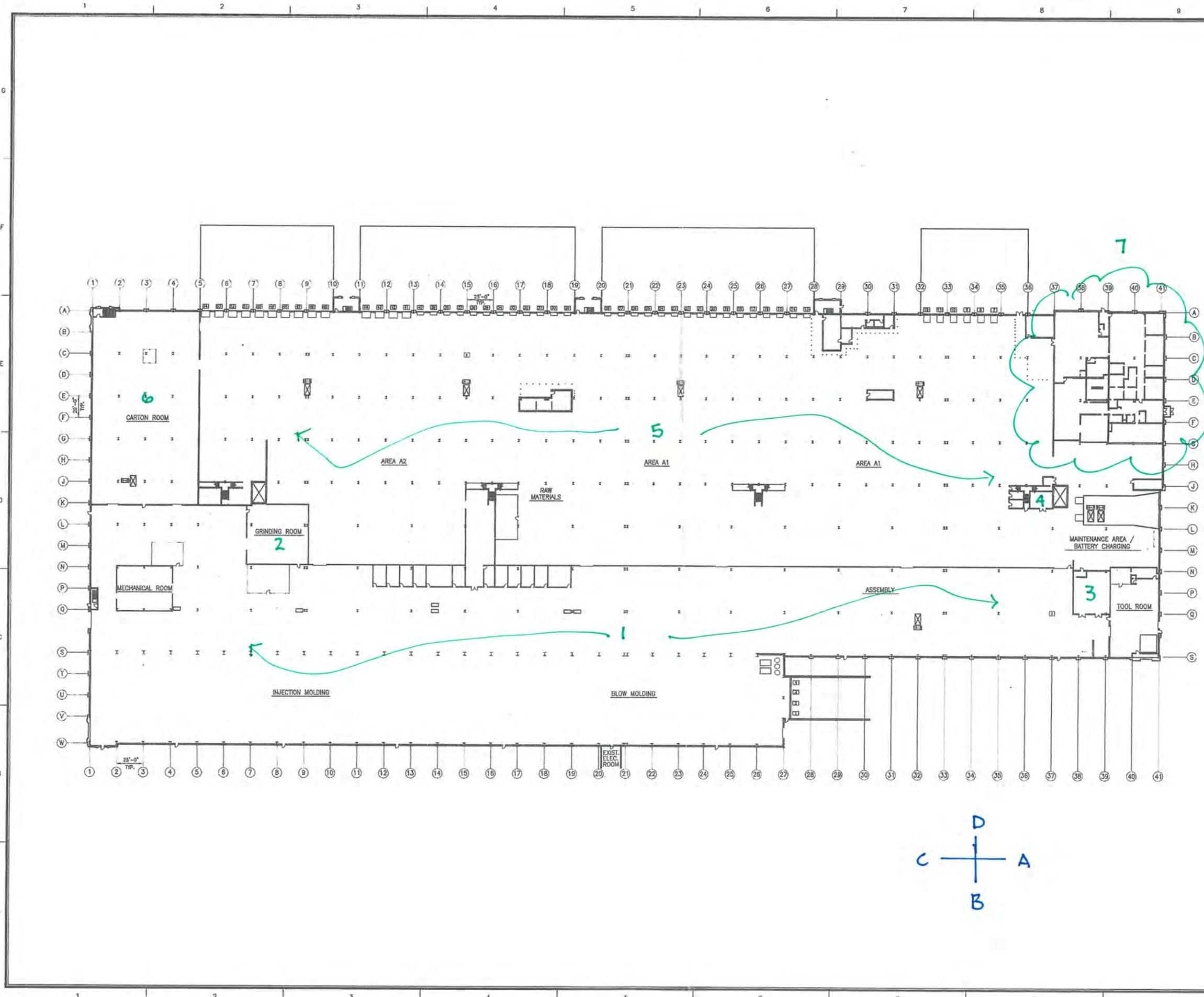
SHEET TITLE

GENERAL FLOOR PLAN
SECOND FLOOR

DRAWING

A-102

SHEET 2 OF 2




NFTA
 Niagara Frontier
 Transportation Authority
 Serving Buffalo Niagara

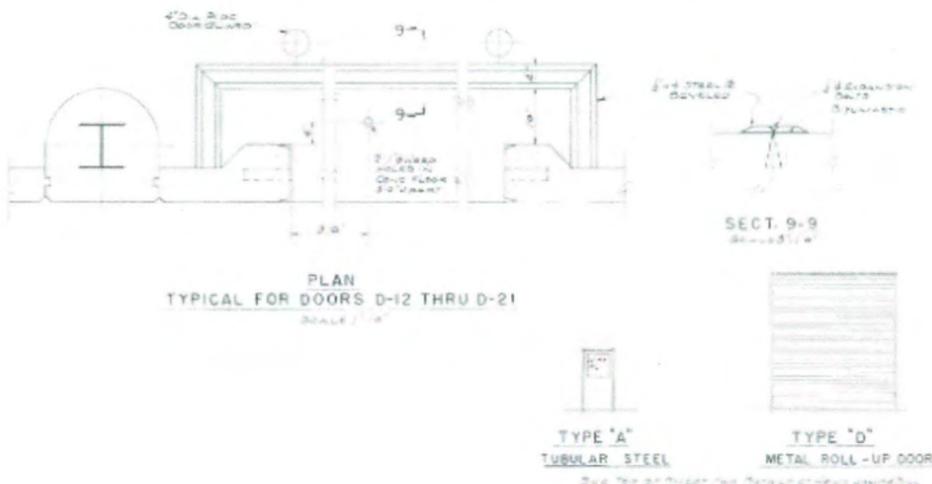
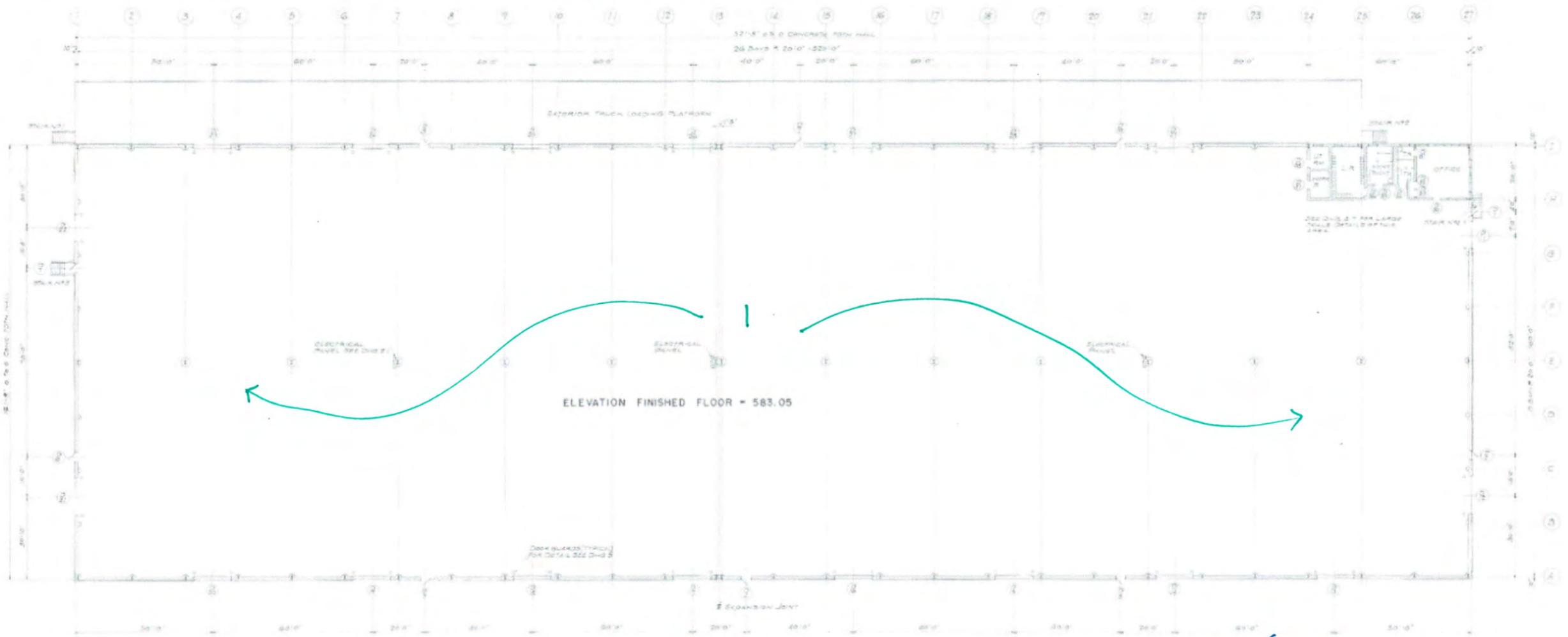
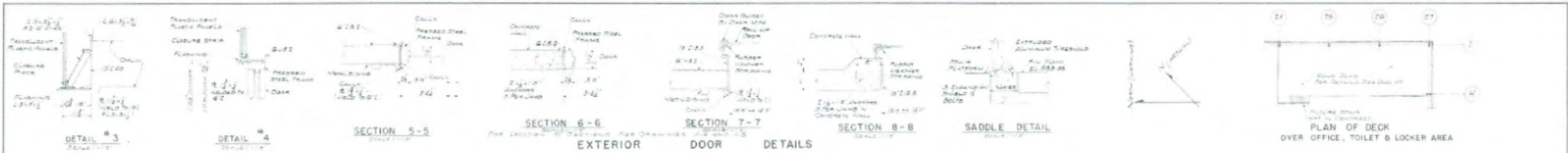
Port Terminal 'A'
 General

MARK	DATE	DESCRIPTION
EC	07/18/09	Existing Conditions

ISSUE:
 NFTA PROJECT NO: PA0050
 DESIGNER PROJECT NO: N/A
 CAD DWG FILE: A-101.DWG
 DRAWN BY: J.H.B.
 CHECKED BY: H.W.M.
 SCALE: 1/32" = 1'-0"
 COPYRIGHT:

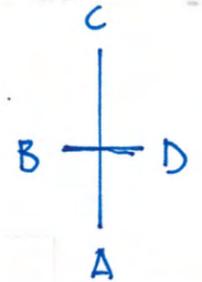
SHEET TITLE
GENERAL FLOOR PLAN
FIRST FLOOR

DRAWING
A-101
 SHEET 1 OF 2



SCHEDULE OF EXTERIOR DOORS

NO.	SIZE	MATL.	TYPE	FRAME	GLASS	INSULATION	NO.	SIZE	MATL.	TYPE	FRAME	GLASS	INSULATION
D-1	10'-0" x 10'-0"	STEEL	4	---	---	---	D-18	14'-0" x 12'-0"	METAL	D	2	---	SPRG
D-2	10'-0" x 10'-0"	---	---	---	---	---	D-17	14'-0" x 12'-0"	---	---	---	---	---
D-3	10'-0" x 10'-0"	---	---	---	---	---	D-16	14'-0" x 12'-0"	---	---	---	---	---
D-4	10'-0" x 10'-0"	---	---	---	---	---	D-15	14'-0" x 12'-0"	---	---	---	---	---
D-5	10'-0" x 10'-0"	---	---	---	---	---	D-14	14'-0" x 12'-0"	---	---	---	---	---
D-6	10'-0" x 10'-0"	---	---	---	---	---	D-13	14'-0" x 12'-0"	---	---	---	---	---
D-7	10'-0" x 10'-0"	---	---	---	---	---	D-12	14'-0" x 12'-0"	---	---	---	---	---
D-8	10'-0" x 10'-0"	---	---	---	---	---	D-11	14'-0" x 12'-0"	---	---	---	---	---
D-9	10'-0" x 10'-0"	---	---	---	---	---	D-10	14'-0" x 12'-0"	---	---	---	---	---
D-10	10'-0" x 10'-0"	---	---	---	---	---	D-9	14'-0" x 12'-0"	---	---	---	---	---
D-11	10'-0" x 10'-0"	---	---	---	---	---	D-8	14'-0" x 12'-0"	---	---	---	---	---
D-12	10'-0" x 10'-0"	---	---	---	---	---	D-7	14'-0" x 12'-0"	---	---	---	---	---
D-13	10'-0" x 10'-0"	---	---	---	---	---	D-6	14'-0" x 12'-0"	---	---	---	---	---
D-14	10'-0" x 10'-0"	---	---	---	---	---	D-5	14'-0" x 12'-0"	---	---	---	---	---
D-15	10'-0" x 10'-0"	---	---	---	---	---	D-4	14'-0" x 12'-0"	---	---	---	---	---



AS BUILT

WAREHOUSE BUILDING (B)	
GROUND FLOOR PLAN	
NIAGARA FRONTIER PORT AUTHORITY BUFFALO PORT TERMINAL 801 FURMANN BLVD. BUFFALO, N. Y.	
OFFICE OF J. FRUCHTBAUM CONSULTING ENGINEER 1000 S. GARDNER ST. BUFFALO, N. Y.	4566 A-1

United States Environmental Protection Agency

This is to certify that

Environmental Testing & Consulting, Inc.

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226

In the Jurisdiction of:

New York

This certification is valid from the date of issuance and expires

March 14, 2018

NY-2011-5

Certification #

February 05, 2015

Issued On



Michelle Price, Chief

Lead, Heavy Metals, and Inorganics Branch



Division of Environmental Protection
Office of Environmental Quality



David P. Majewski

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

John Gorman

New York

This certification is valid from the date of issuance and expires

July 09, 2018

A handwritten signature in black ink, appearing to read "John Gorman". The signature is fluid and cursive, written over a horizontal line.

John Gorman, Chief

Pesticides & Toxic Substances Branch

NY-R-4289-6

Certification #

June 17, 2015

Issued On

United States Environmental Protection Agency

This is to certify that



Noah D Majewski

has fulfilled the requirements of the Toxic Substances Control Act (TSCA) Section 402, and has received certification to conduct lead-based paint activities pursuant to 40 CFR Part 745.226 as:

Risk Assessor

In the Jurisdiction of:

All EPA Administered Lead-based Paint Activities Program States, Tribes and Territories

This certification is valid from the date of issuance and expires July 09, 2019

LBP-R-128530-1

Certification #

June 13, 2016

Issued On



A handwritten signature in black ink, appearing to read "John Gorman".

John Gorman, Chief

Pesticides & Toxic Substances Branch



**NEW YORK STATE DEPARTMENT OF HEALTH
RADIOACTIVE MATERIALS LICENSE**

Pursuant to the Public Health Law and Industrial Code Rule 38, and in reliance on statements and representations heretofore made by the licensee designated below, a license is hereby issued authorizing radioactive material(s) for the purpose(s), and at the place(s) designated below. The license is subject to all applicable rules, regulations, and orders now or hereafter in effect of all appropriate regulatory agencies and to any conditions specified below.

1. NAME OF LICENSEE Environmental Testing & Consulting, Inc. FEIN: 74-3053315 Phone: (585) 344-2430	3. LICENSE NUMBER C2732 4. EXPIRATION DATE August 28, 2018
2. ADDRESS OF LICENSEE 56 Harvester Avenue, Unit 01-02-23 Batavia, New York 14020	5a. REFERENCE b. AMENDMENT NO.. DH 11-422 & 3 11-966

- | | | |
|---|----------------------------------|---|
| 6. Radioactive Materials
(elements in mass number) | 7. Chemical and/or physical form | 8. Maximum quantity licensee may possess
at any one time |
| A. Cobalt 57 | A. Sealed Source | A. 24 millicuries |

9. Authorized use.
Conditions 6.A.:

- A. The licensee is authorized to use any sealed source, or associated portable x-ray fluorescence device which has been manufactured and distributed in accordance with a specific license issued by an Agreement State or the United States Nuclear Regulatory Commission. Combinations of sources and devices must be compatible for use as stated in a Sealed Source and Device Registration Certificate (i.e., stated in the registration certificate for the source or device).
- B. No single source may exceed the maximum activity specified for that nuclide in the Sealed Source and Device Registration Certificate for any device in which the source is to be used.
- C. Only portable x-ray fluorescence devices which require continuous activation by the operator, and which incorporate a mechanism to automatically return the source to its shielded position (e.g., a "dead-man" switch) may be obtained and used under this license. Devices which rely upon positive action by the operator to shield the source, such as operation of a key switch, or which do not require continuous operator activation during exposure, are not authorized under this license.



NEW YORK STATE DEPARTMENT OF HEALTH
RADIOACTIVE MATERIALS LICENSE

3. License Number C2732

5a. Ref. DH 11-422 & 11-966

Amendment. No. 3

10. A. Licensed material shall be stored at the location indicated in Condition 2 and may be used at temporary job sites of the licensee anywhere within the State of New York, where the Department of Health exercises jurisdiction.
- B. Overnight storage at other locations shall be in accordance with statements referenced in Condition 11 of the license, provided that such storage may not be in a residence, or in an attached garage except within a vehicle. Any vehicle used for storage shall be driven only for purposes associated with use or transport of the contained radioactive material, by a person qualified to use the material, and no passengers shall be carried unless they are also involved in work under this license. Vehicular storage shall only be allowed if no other storage is possible and shall not exceed five (5) consecutive nights unless authorization to exceed this limit is obtained from the Department.
- C. Under no circumstances shall radioactive material authorized by this license be transferred to the custody of any person or firm other than the licensee, or be used or stored by another person or firm or its employees; unless that person or firm possesses a valid license to possess and use such radioactive material.
11. Except as specifically provided otherwise in this License, the licensee shall conduct its program in accordance with the statements, representation and procedures contained in the documents, including any enclosures, listed below. The Department's Regulations shall govern, unless the statements, representation and procedures in the licensee's application and correspondence are more restrictive than the Regulations.
- A. License Renewal Request dated July 11, 2008, Signed by Susan K. Majewski, with attachments.
- B. License Renewal Application dated August 12, 2008, signed by Susan K. Majewski, with attachments.
- C. Documents received August 25, 2008.
- D. **License Renewal Request dated July 28, 2011, signed by David P. Majewski, with attachments.**
- E. **Letter dated November 15, 2011, signed by David P. Majewski, with attachments.**
12. Licensed material shall be used by, or under the supervision of, **David P. Majewski** (Radiation Safety Officer), by licensee personnel trained and certified by the manufacturer. The licensee shall maintain a complete and accurate record of the qualifications of each person permitted to use radiation sources under this license.



NEW YORK STATE DEPARTMENT OF HEALTH
RADIOACTIVE MATERIALS LICENSE

3. License Number C2732

5a. Ref. DH 11-422 & 11-966

Amendment. No. 3

13. Sealed sources containing radioactive materials shall not be opened or removed from devices.
14.
 - A. The licensee is not authorized to dismantle, repair or affect any changes in the source holders/devices.
 - B. The licensee shall not alter labels attached to source holders or devices, and shall maintain labels in legible condition at all times.
15. The licensee shall instruct persons who engage in work under the license, in accordance with section 38.27(c) of Code Rule 38. Such instruction shall include the licensee's operating and emergency procedures, and other information contained in documents incorporated in Condition 11.
16. The licensee shall conduct a physical inventory every six (6) months to account for all devices received and possessed under the License. The records of the inventories shall be maintained for three (3) years from the date of the inventory for inspection by the Department, and shall include the quantities and kinds of licensed material, Manufacturer's Name and Model No., location of devices, the date of the inventory, and the name of the person who performed it.
17.
 - A. The licensee shall maintain a utilization log containing the identification of devices used, dates removed and returned to storage, the location of use, and the identity of user.
 - B. The log shall be kept at the location of storage and shall contain sufficient detail to enable the licensee to inform the Department at any time, of the exact location of each device.
18. Current copies of the following documents shall be maintained at temporary job sites for Department inspection:
 - A. The manufacturer's instruction manual and the licensee's operating and emergency procedures.
 - B. A copy of the results of the latest test for leakage and/or contamination performed on the sealed sources.
 - C. **A copy of this license.**
19. In the event that a theft, loss or other serious incident does occur, the Department shall be notified immediately by telephone and subsequent information acquired by the licensee shall be reported as it is received. All device users must carry the NYSDOH's current telephone number in their emergency procedures.



NEW YORK STATE DEPARTMENT OF HEALTH
RADIOACTIVE MATERIALS LICENSE

3. License Number C2732

5a. Ref. DH 11-422 & 11-966

Amendment. No. 3

20. The licensee shall ensure that all persons authorized to use portable devices comply with safe use and maintenance procedures and that they do not leave a device unattended or unsecured at any time, even for a few minutes.

FOR THE NEW YORK STATE DEPARTMENT OF HEALTH

By: _____

Charles J. Burns
Charles J. Burns, Chief
Radioactive Materials Section
Bureau of Environmental Radiation Protection

Date: December 2, 2011

CJB/MS: gsd
C2732_03.Renewal.doc
Rev. 3/07

Certificate of Achievement

This is to certify that

David P. Majewski
of Environmental Testing & Consulting, Inc.

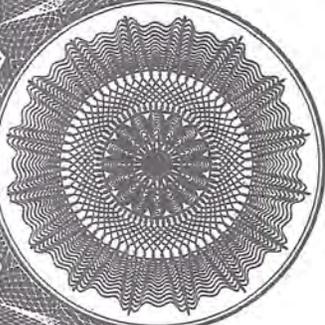
on the 29th day of March 1996 successfully completed the factory training for

RMD's LPA-1 Lead Paint Inspection System

including, but not limited to, the topics of Radiation Safety
and the Proper Use of the Instrument.



Jacob Paster, Vice-President of RMD
44 Hunt St., Watertown, Massachusetts



Certificate of Achievement

This is to certify that

Noah Majewski

Environmental Testing & Consulting

on the 18th of October, 2012 successfully completed the factory training for

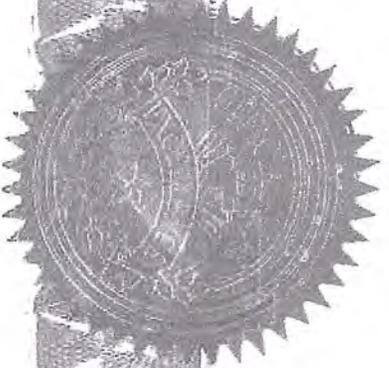
Dynasil Products XRF Lead Paint Inspection System

including, but not limited to, the topics of Radiation Safety, DOT Regulations, Haz-Mat Security Awareness and the Proper Use of the Instrument



Kathleen Tighe, Sales Manager, Dynasil

44 Hunt Street, Watertown, Massachusetts



REPORTING

Sample readings on various testing combinations are stored in memory of the XRF analyzer and combined with other site-specific information supplied by the operator to generate the final report data.

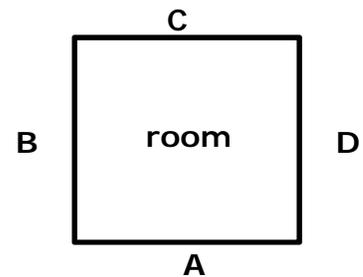
Lead results are expressed in milligrams per square centimeter (mg/cm^2), with results equal to or greater than $1.0 \text{ mg}/\text{cm}^2$ being considered positive for lead-based paint.

Report definitions:

Room Name – Denotes the individual room name and number (if applicable).

Reading Number – The number generated by the XRF corresponding to the reading (sample) taken.

Wall – Indicates the component side identification location. The Side Identification System is used to locate any wall or building component (structure) in a specific room. This system uses an A/B/C/D designation. The “A” side being the wall running parallel and nearest the front (address) side of building and the succeeding walls identified in a clockwise manner around the room, B/C/D.



Structure – Identifies the building component sampled.

Location – Identifies the location of the structure sampled with reference to: left, center or right; upper or lower, as the wall is viewed from the center of the room.

Member – Additional details of the structure.

Paint Condition – Paint Condition was not considered in this survey.

Substrate – Material the component is made from; beneath paint film coating.

Color – Visible color of paint film.

Lead– Sample analysis results, lead concentration in mg/cm^2 .

Mode – Sample function of XRF instrument.

Quality Control of Field Measurements

LPA-1 Lead Paint Analyzer

manufactured by Protec Instrument Corp.

Quality control is necessary to assure that resulting data are of adequate quality. A systematic quality control program must be implemented to assure that measurements are made with an instrument that is operating properly.

Specific tests should be taken prior to and during use of the field instrument to assure that measurements are consistent and of adequate quality. This is done by taking "check" measurements on a "reference standard" and monitoring the results.

Quality control checks include:

1. Calibration checks.
2. Variability checks.

Calibration checks should be conducted regularly, before and during use of the instrument to assure that measurements are made with an instrument that is performing within specifications. The calibration is checked by monitoring the precision of a group of measurements to assure that the variability of the instrument is within specifications. Accuracy of the calibration must be monitored to assure that the substrate correction feature is adequately compensating for substrate effects with minimum bias.

Quality control checks should be performed using the measured Calibration Test Block provided by the manufacturer (Protec) or NIST Standard Reference Materials (SRM's) and representative substrate materials.

Two types of calibration checks should be performed regularly and systematically.

Periodic Calibration Checks

Performed by the manufacturer (PROTEC Instrument Corp.) at the time of instrument resourcing. At this time the instrument is subjected to a series of testing procedures ensuring performance and integrity.

Daily and In-Use Calibration Checks

At the beginning of each testing day, and at regular intervals during the day, calibration checks should be performed. Calibration checks should be conducted at least at the beginning and end of each testing day, and:

- a. Whenever the unit is turned "on".
- b. At least once during every four (4) hours of continuous usage.
- c. Whenever the instrument is dropped or subject to an abusive condition.
- d. At the conclusion of testing.

Check the instrument's calibration at the beginning of each testing project. This is done by taking the average of three (3) measurements on the Calibration Test Block (1.9 mg/cm²) provided with the instrument or using the NIST (red, 1.02 mg/cm²) standard film. The average should not differ from the Calibration Test Block or the NIST value by more than +/- 0.3 mg/cm². If the average is greater than +/- 0.3 mg/cm², wait at least five (5) minutes for the instrument's automatic Calibration Check to occur and repeat the original procedure. If failure is noted, do not continue and call the manufacturer to advise of the malfunction.

Performance Characteristic Sheet

EFFECTIVE DATE: October 25, 2006

EDITION NO.: 5

MANUFACTURER AND MODEL:

Make: *Radiation Monitoring Devices*Model: *LPA-1*Source: *⁵⁷Co*

Note: This sheet supersedes all previous sheets for the XRF instrument of the make, model, and source shown above ***for instruments sold or serviced after June 26, 1995. For other instruments, see prior editions.***

FIELD OPERATION GUIDANCE

OPERATING PARAMETERS:

Quick mode or 30-second equivalent standard (Time Corrected) mode readings.

XRF CALIBRATION CHECK LIMITS:

0.7 to 1.3 mg/cm ² (inclusive)

SUBSTRATE CORRECTION:

For XRF results below 4.0 mg/cm², substrate correction is recommended for:

Metal using 30-second equivalent standard (Time Corrected) mode readings.

None using quick mode readings.

Substrate correction is not needed for:

Brick, Concrete, Drywall, Plaster, and Wood using 30-second equivalent standard (Time Corrected) mode readings

Brick, Concrete, Drywall, Metal, Plaster, and Wood using quick mode readings

THRESHOLDS:

30-SECOND EQUIVALENT STANDARD MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Results corrected for substrate bias on metal substrate only	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	0.9
	Plaster	1.0
	Wood	1.0

QUICK MODE READING DESCRIPTION	SUBSTRATE	THRESHOLD (mg/cm ²)
Readings not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated from the EPA/HUD evaluation using archived building components. Testing was conducted on approximately 150 test locations in July 1995. The instrument that performed testing in September had a new source installed in June 1995 with 12 mCi initial strength.

OPERATING PARAMETERS:

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film).

If readings are outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instruments into control before XRF testing proceeds.

SUBSTRATE CORRECTION VALUE COMPUTATION:

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm² for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.02 mg/cm² at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm². Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm² NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1^{\text{st}} + 2^{\text{nd}} + 3^{\text{rd}} + 4^{\text{th}} + 5^{\text{th}} + 6^{\text{th}} \text{ Reading}) / 6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing. Use either the Quick Mode or 30-second equivalent standard (Time Corrected) Mode readings.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF results.

Compute the average of all ten re-test XRF results.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

BIAS AND PRECISION:

Do not use these bias and precision data to correct for substrate bias. These bias and precision data were computed without substrate correction from samples with reported laboratory results less than 4.0 mg/cm² lead. The data which were used to determine the bias and precision estimates given in the table below have the following properties. During the July 1995 testing, there were 15 test locations with a laboratory-reported result equal to or greater than 4.0 mg/cm² lead. Of these, one 30-second standard mode reading was less than 1.0 mg/cm² and none of the quick mode readings were less than 1.0 mg/cm². The instrument that tested in July is representative of instruments sold or serviced after June 26, 1995. These data are for illustrative purposes only. Actual bias must be determined on the site. Results provided above already account for bias and precision. Bias and precision ranges are provided to show the variability found between machines of the same model.

30-SECOND STANDARD MODE READING MEASURED AT	SUBSTRATE	BIAS (mg/cm ²)	PRECISION* (mg/cm ²)
0.0 mg/cm ²	Brick	0.0	0.1
	Concrete	0.0	0.1
	Drywall	0.1	0.1
	Metal	0.3	0.1
	Plaster	0.1	0.1
	Wood	0.0	0.1
0.5 mg/cm ²	Brick	0.0	0.2
	Concrete	0.0	0.2
	Drywall	0.0	0.2
	Metal	0.2	0.2
	Plaster	0.0	0.2
	Wood	0.0	0.2
1.0 mg/cm ²	Brick	0.0	0.3
	Concrete	0.0	0.3
	Drywall	0.0	0.3
	Metal	0.2	0.3
	Plaster	0.0	0.3
	Wood	0.0	0.3
2.0 mg/cm ²	Brick	-0.1	0.4
	Concrete	-0.1	0.4
	Drywall	-0.1	0.4
	Metal	0.1	0.4
	Plaster	-0.1	0.4
	Wood	-0.1	0.4

*Precision at 1 standard deviation.

CLASSIFICATION RESULTS:

XRF results are classified as positive if they are greater than the upper boundary of the inconclusive range, and negative if they are less than the lower boundary of the inconclusive range, or inconclusive if in between. The inconclusive range includes both its upper and lower bounds. Earlier editions of this *XRF Performance Characteristics Sheet* did not include both bounds of the inconclusive range as "inconclusive." While this edition of the Performance Characteristics Sheet uses a different system, the specific XRF readings that are considered positive, negative, or inconclusive for a given XRF model and substrate remain unchanged, so previous inspection results are not affected.

DOCUMENTATION:

An EPA document titled *Methodology for XRF Performance Characteristic Sheets* provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. For a copy of this document call the National Lead Information Center Clearinghouse at 1-800-424-LEAD. A HUD document titled *A Nonparametric Method for Estimating the 5th and 95th Percentile Curves of Variable-Time XRF Readings Based on Monotone Regression* provides supplemental information on the methodology for variable-time XRF instruments. A copy of this document can be obtained from the HUD lead web site, www.hud.gov/offices/lead.

This XRF Performance Characteristic Sheet was developed by QuanTech, Inc., under a contract from the U.S. Department of Housing and Urban Development (HUD). HUD has determined that the information provided here is acceptable when used as guidance in conjunction with Chapter 7, Lead-Based Paint Inspection, of HUD's *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*.

ATTACHMENT D

*Laboratory Certification
Terminal B*

*PCB CAULK ENVIRONMENTAL SCREENING
AND XRF LEAD-BASED PAINT SURVEY*

**Buffalo Outer Harbor
Fuhrmann Boulevard
Buffalo, New York**

NEW YORK STATE DEPARTMENT OF HEALTH
WADSWORTH CENTER



Expires 12:01 AM April 01, 2017
Issued April 01, 2016

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MS. JULIE DICKERSON
ENVIRONMENTAL HAZARDS SERVICES, LLC
7469 WHITEPINE ROAD
N. CHESTERFIELD, VA 23237

NY Lab Id No: 11714

is hereby APPROVED as an Environmental Laboratory in conformance with the
National Environmental Laboratory Accreditation Conference Standards (2003) for the category
ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE
All approved analytes are listed below:

Characteristic Testing

Sample Preparation Methods

TCLP	EPA 1311	EPA 3550C
		EPA 3540C

Metals I

Barium, Total	EPA 6010C
Cadmium, Total	EPA 6010C
Chromium, Total	EPA 6010C
Lead, Total	EPA 6010C
	EPA 7000B
Silver, Total	EPA 6010C



Department
of Health

Metals II

Arsenic, Total	EPA 6010C
Mercury, Total	EPA 7471B
Selenium, Total	EPA 6010C

Polychlorinated Biphenyls

PCB-1016	EPA 8082A
PCB-1221	EPA 8082A
PCB-1232	EPA 8082A
PCB-1242	EPA 8082A
PCB-1248	EPA 8082A
PCB-1254	EPA 8082A
PCB-1260	EPA 8082A
PCBs in Oil	EPA 8082A

Sample Preparation Methods

EPA 3580A
EPA 3050B

Serial No.: 54411

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