

Weston & Sampson Engineers, Inc. Five Centennial Drive

Peabody, Massachusetts 01960-7985 www.westonandsampson.com Tel: (978)532-1900 Fax: (978)977-0100

Innovative Solutions since 1899

MEMORANDUM

TO: Brandon Riley – Weston & Sampson

FROM: Craig Miner - Weston & Sampson

DATE: July 17, 2015

SUBJECT: Whitmore Field Facility, Newton, Massachusetts Newton Highlands Playground

Sample result summary

The purpose of this memo is to summarize the results of our sampling/analytical testing of building materials at Whitmore Field located at the intersection of Dedham Street and Upland Avenue in Newton, Massachusetts. The Site consists of a trailer used to house athletic equipment and a concrete building containing bathrooms plus a concession stand. There is also a standalone metal storage unit on the property.

Asbestos Survey

The asbestos sampling was performed by Massachusetts-licensed asbestos inspector Mr. Craig Miner on May 29, 2015. A total of 32 samples of suspect asbestos-containing materials were collected. We performed the bulk sampling in the area according to methods outlined in the U.S. Environmental Protection Agency (EPA) guidance document titled, "Guidance for Controlling Asbestos-Containing Materials in Buildings" (Document No. 560/5-85/024). The results of the sampling are summarized below.

The following ACMs were identified:

Material	Location
Tan window caulk	Trailer exterior
White window caulk	Trailer exterior
Seam caulk	Trailer exterior

No asbestos was detected within samples collected by Weston & Sampson of the following materials:

- White door caulk trailer
- Textured wall concrete building
- Window glazing trailer
- Tar paper under shingle concrete building
- Black roofing tar/felt trailer
- Roof shingle concrete building
- Door caulk concrete building
- Beige floor tile and associated mastic/backing – trailer



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- Stucco ceiling trailer
- Sealant on roof concrete building
- Sealant on roof trailer

The U.S. Environmental Protection Agency (EPA) defines an Asbestos-Containing Material (ACM) as a material that contains greater than 1 percent (%) asbestos. The Massachusetts Department of Environmental Protection defines an Asbestos-Containing Material (ACM) as a material that contains greater than or equal to 1 percent (%) asbestos. Asbestos was detected in several of the building materials sampled by Weston & Sampson in concentrations greater than or equal to 1%.

The EPA - NESHAP regulations (National Emissions Standard for Hazardous Air Pollutants - 40 CFR Part 61, Subpart M), require that friable ACM, Category I and II non-friable ACM that has become friable, or Category I and II non-friable ACM that will be or has been subject to sanding, grinding, or abrading, be removed from a facility being demolished or renovated prior to any activity that would disturb the material.

The following materials are scheduled to be removed as part of the upcoming renovation project at the facility:

Material Location		Approximate Quantity
Tan and white window caulk	Trailer exterior – present on all windows	15 windows ~4x'5'
Seam caulk (vertical seams and perimeter)	Trailer exterior	300 LF

Asbestos Limitations

Our survey did not include an evaluation of underground asbestos cement water/sewer piping, or underground steam lines that may be present at the Site. Limited exploratory demolition was performed to access potentially hidden materials in pipe/other building chases or fire door cores. In addition to the above listed materials, other suspect ACMs may be present at the site that may not have been accessible by Weston & Sampson during our survey. Weston & Sampson investigated for potential asbestos-containing pipe insulation but did not observe any, however the materials may be concealed by existing ceilings and/or walls.

Weston & Sampson recommends that if any suspect materials are uncovered during demolition or renovation activities that were not identified during the survey, that the materials be sampled and analyzed for asbestos content prior to removal.

Polychlorinated Biphenyls (PCB) Survey

Weston & Sampson conducted a limited survey of the Site building for suspect PCB-containing caulking and paint materials. PCB's are regulated under EPA's Toxic Substances Control Act



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(TSCA) regulations (40 CFR Part 761). Caulking and other bulk materials that contain PCBs in concentrations greater than 50 parts per million (ppm) are considered PCB bulk product waste and must be disposed at a facility permitted to accept TSCA waste. Caulking and other bulk materials containing concentrations of PCB's less than 50 ppm are not regulated by TSCA and can be disposed of at a facility permitted to accept the specific concentration of PCBs present in that particular bulk material.

Based on the above referenced limits, none of the materials sampled by Weston & Sampson at the Site will be required to be disposed of at a TSCA permitted facility. Various types and colors of suspect materials were identified within the property and a total of six samples were collected for PCB analysis. These samples were analyzed by Con-Test Analytical Laboratory of East Longmeadow, Massachusetts via EPA Method 8082 with soxhlet extraction. The sample results are summarized below.

PCB Sample Results

Sample Description	Analytical Result (ppm)
P1 –Trailer caulk	Not Detected
P2 –Trailer caulk	Not Detected
P3 –Trailer caulk	Not Detected
P4 –Trailer caulk	Not Detected
P5 – Concrete building caulk	Not Detected
P6 – Concrete building caulk	Not Detected

Lead Paint Screening

On May 29, 2015 Weston & Sampson performed a lead paint screening of the Site buildings. During the screening, we collected paint chip samples from representative painted/coated building components for analysis via Atomic Absorption Spectrometry using method SW846-7420. Samples were analyzed by EMSL Analytical, Inc. of Cinnaminson, New Jersey.

Summary of Findings

The paint screening revealed that none of the paint chip samples collected from the Site building contained levels of lead paint that are greater than the EPA residential standard of 0.50% lead by weight. The results of the samples ranged from <0.010% lead by weight (below the laboratory limit of detection) to 0.017% lead by weight. However, the Occupational Health and Safety Administration (OSHA) Lead in Construction Standard 29 CFR 1926.62 considers any detectable level of lead to be a potential for exposure if dust is generated from disturbances of surfaces coated with paint containing lead.



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Lead Paint Sample Results

Sample ID	Sample Description	Analytical Results (% lead by weight)
L1	Trailer steps	< 0.010
L2	Trailer siding	< 0.010
L3	Concrete building siding	0.017
L4	Trailer trim	< 0.010
L5	Concrete building trim	< 0.010
L6	Concrete building interior	< 0.010
L7	Concrete building interior	< 0.010
L8	Concrete building interior	< 0.010

Regulatory Implications and Regulations

Worker Protection

OSHA defines any detectable concentration of lead in paint as a potential lead exposure hazard to workers doing construction/demolition-type work on these surfaces as even small concentrations of lead can result in unacceptable employee exposures depending upon the method of removal and other workplace conditions. Since these conditions can vary greatly, the lead-in-construction standard was written to require exposure monitoring or the use of historical or objective data to ensure that employee exposures do not exceed the Action Level of 30 micrograms per cubic meter of air ($\mu g/m3$). Historical data may be applied to some construction tasks involving lead.

OSHA requires that if coated surfaces with paint containing lead are impacted during demolition, then lead exposure monitoring must be performed by the contractor. Contractors and employers of staff who may disturb these materials are obligated to perform a 'negative exposure assessment' in accordance with OSHA regulations in order to document that, although minimal levels of lead are present in these materials, exposure to lead does not exceed the aforementioned OSHA Action Level.

OSHA states that until the employer performs an exposure assessment (or can supply prior data regarding the same type of work which may exempt them from the standard) and documents that employees are not exposed above the permissible exposure limit (PEL) of greater than $50~\mu g/m3$ of air, the employer must treat employees as if they were exposed above the PEL for the following operations:

- manual demolition of structures, manual scraping, manual sanding, and use of heat gun where lead-containing coatings or paints are present;
- abrasive blasting enclosure movement and removal;
- power tool cleaning;
- lead burning;
- using lead-containing mortar or spray painting with lead-containing paint;



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- abrasive blasting, rivet busting, or welding, cutting, or burning on any structure where lead-containing coatings or paint are present;
- cleanup activities where dry expendable abrasive are used; and
- any other task the employer believes may cause exposure in excess of the PEL.

The contractor must provide respiratory protection, protective work clothing and equipment, change areas, hand washing facilities, biological monitoring, and training until an exposure assessment has determined that the work activity will result in an exposure below the PEL. Additional requirements under this standard include a written compliance program as well as record keeping.

Other Hazardous Materials

As part of the survey, Weston & Sampson performed a survey/inventory of potentially hazardous chemicals and mechanical equipment located within the survey area that will require special handling and disposal prior to building renovation / demolition activities. The following hazardous materials were observed within the building:

Material	Quantity	Location
Refrigerator	1	Concrete building
A/C unit	2	Concrete building
Fluorescent light bulbs (4'& 8')	6	Throughout site

OrderID: 201506615



Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

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EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675

Fax: (856) 786-5974

				
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NIOSH 7105		Graphite Furnace AA	0.03 µg/filter	
NIOSH 7300 mod	lified	ICP-AES/ICP-MS	0 5 µg/filter	
SW846-7000E	3	Flame Atomic Absorption	10 µg/wipe	
SW846-6010B o	or C	ICP-AES	1.0 µg/wipe	
SW846-7000B/70	010	Graphite Furnace AA		
SW846-1311/7000B/S	M 3111B	Flame Atomic Absorption		
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SW846-7000E	3	Flame Atomic Absorption	40 mg/kg (ppm)	
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OrderID: 201506615



LEAD (Pb) CHAIN OF CUSTODY EMSL ORDER ID (Lab Use Only):

201506615

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 786-5974

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

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Lead (Pb) Chain of Custody EMSL Order ID (Lab Use Only):

201506615

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE (800) 220-3675 FAX: (856) 786-5974

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LEAD (Pb) CHAIN OF GUSTODY EMSL ORDER ID (Lab Use Only):

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Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

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200 Route 130 North, Cinnaminson, NJ 08077 (856) 303-2500 / (856) 786-5974

http://www.EMSL.com cinnaminsonleadlab@emsl.com EMSL Order: CustomerID:

WESA62

201506615

CustomerPO: ProjectID:

Craig Miner Weston & Sampson Engineers, Inc. **5 Centennial Drive** Peabody, MA 01960

(978) 532-1900 Phone: Fax: (978) 977-0100 Received: 06/03/15 10:21 AM

Collected:

Project: Newton 2150258

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

Client Sample Description	Lab ID Collected	Analyzed	Lead Concentration
L1	201506615-0001	6/5/2015	<0.010 % wt
	Site: Trailer Steps		
L2	201506615-0002	6/5/2015	<0.010 % wt
	Site: Trailer Siding		
L3	201506615-0003	6/5/2015	0.017 % wt
	Site: Conc. Bldg Siding		
L4	201506615-0004	6/5/2015	<0.010 % wt
	Site: Trailer Trim		
L5	201506615-0005	6/5/2015	<0.010 % wt
	Site: Conc. Trim		
L6	201506615-0006	6/5/2015	<0.010 % wt
	Site: Conc. Interior		
L7	201506615-0007	6/5/2015	<0.010 % wt
Site	Site: Conc. Interior		
L8	201506615-0008	6/5/2015	<0.010 % wt
	Site: Conc. Interior		

Julie Smith - Laboratory Director NJ-NELAP Accredited:03036 or other approved signatory

July Smith

*Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.010 % wt based on the minimum sample weight per our SOP. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. The QC data associated with the sample results included in this report meet the recovery and precision requirements established by the AIHA-LAP, unless specifically

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 06/06/2015 11:12:46



7 Constitution Way, Suite 107, Woburn, MA 01801 (781) 933-8411 / (781) 933-8412 Phone/Fax:

http://www.EMSL.com bostonlab@emsl.com EMSL Order: CustomerID:

CustomerPO:

ProjectID:

131502950

WESA62

Attn: Craig Miner Weston & Sampson Engineers, Inc. **5 Centennial Drive** Peabody, MA 01960

Phone: (978) 532-1900 (978) 977-0100 Fax: Received: 06/02/15 9:00 AM Analysis Date: 6/4/2015

Collected:

Project: Newton Pauk 2150258

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using **Polarized Light Microscopy**

			Non-A	<u>Asbestos</u>	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
01A	Trailer - White	White		100% Non-fibrous (other)	None Detected
131502950-0001	Door Caulk	Non-Fibrous Homogeneous			
01B	Trailer - White	White		100% Non-fibrous (other)	None Detected
131502950-0002	Door Caulk	Non-Fibrous Homogeneous			
02A	Trailer - Tan	Gray		95% Non-fibrous (other)	5% Chrysotile
131502950-0003	Window Caulk	Non-Fibrous Homogeneous			
02B	Trailer - Tan	Gray		95% Non-fibrous (other)	5% Chrysotile
131502950-0004	Window Caulk	Non-Fibrous Homogeneous			
03A	Trailer - Black Tar	Black	20% Cellulose	80% Non-fibrous (other)	None Detected
131502950-0005	on Roofing Metal	Non-Fibrous Homogeneous			
03B	Trailer - Black Tar	Black	20% Cellulose	80% Non-fibrous (other)	None Detected
131502950-0006	on Roofing Metal	Non-Fibrous Homogeneous			
04A	Conc. Bldg -	Gray		100% Non-fibrous (other)	None Detected
131502950-0007	Textured Coating	Non-Fibrous Homogeneous			
04B	Conc. Bldg -	Gray		100% Non-fibrous (other)	None Detected
131502950-0008	Textured Coating	Non-Fibrous Homogeneous			

Analyst(s)	
Kevin Pine (32)	

Steve Grise, Laboratory Manager or other approved signatory

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7 Constitution Way, Suite 107, Woburn, MA 01801

Phone/Fax: (781) 933-8411 / (781) 933-8412

http://www.EMSL.com bostonlab@emsl.com

EMSL Order: CustomerID: 131502950

WESA62

CustomerPO: ProjectID:

Attn: Craig Miner
Weston & Sampson Engineers, Inc.

5 Centennial Drive Peabody, MA 01960 Phone: (978) 532-1900 Fax: (978) 977-0100 Received: 06/02/15 9:00 AM

Analysis Date: 6/4/2015

Collected:

Project: Newton Pauk 2150258

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

				Non-As	sbestos	<u>Asbestos</u>
Sample	Description	Appearance	%	Fibrous	% Non-Fibrous	% Type
04C	Conc. Bldg -	Gray			100% Non-fibrous (other)	None Detected
131502950-0009	Textured Coating	Non-Fibrous Homogeneous				
05A	Conc. Bldg - Roof	Black	10%	% Glass	90% Non-fibrous (other)	None Detected
131502950-0010	Shingle	Non-Fibrous Homogeneous				
05B	Conc. Bldg - Roof	Black	10%	% Glass	90% Non-fibrous (other)	None Detected
131502950-0011	Shingle	Non-Fibrous Homogeneous				
06A	Trailer - Window	Tan			100% Non-fibrous (other)	None Detected
131502950-0012	Glazing	Non-Fibrous Homogeneous				
06B	Trailer - Window	Tan			100% Non-fibrous (other)	None Detected
131502950-0013	Glazing	Non-Fibrous Homogeneous				
07A	Trailer - White	Gray			95% Non-fibrous (other)	5% Chrysotile
131502950-0014	Window Caulk	Non-Fibrous Homogeneous				
07B	Trailer - White	Gray			95% Non-fibrous (other)	5% Chrysotile
131502950-0015	Window Caulk	Non-Fibrous Homogeneous				
08A	Conc. Bldg - Door	White			100% Non-fibrous (other)	None Detected
131502950-0016	Caulk	Non-Fibrous Homogeneous				

Analyst(s)	
Kevin Pine (32)	

Steve Grise, Laboratory Manager or other approved signatory

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Attn: Craig Miner

EMSL Analytical, Inc.

Weston & Sampson Engineers, Inc.

7 Constitution Way, Suite 107, Woburn, MA 01801 (781) 933-8411 / (781) 933-8412 Phone/Fax:

http://www.EMSL.com bostonlab@emsl.com EMSL Order: CustomerID:

CustomerPO:

131502950

WESA62

ProjectID: (978) 532-1900

(978) 977-0100 Fax: Received: 06/02/15 9:00 AM

Analysis Date: 6/4/2015

Collected:

Phone:

Project: Newton Pauk 2150258

5 Centennial Drive

Peabody, MA 01960

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using **Polarized Light Microscopy**

			Non-A	sbestos	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
08B 131502950-0017	Conc. Bldg - Door Caulk	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
09A 131502950-0018	Trailer - Seam Caulk	Gray Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
09B 131502950-0019	Trailer - Seam Caulk	Gray Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
10A 131502950-0020	Conc. Bldg - Tar Paper Under Shingle	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
10B 131502950-0021	Conc. Bldg - Tar Paper Under Shingle	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
11A 131502950-0022	Trailer - Beige Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
11B 131502950-0023	Trailer - Beige Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
12A 131502950-0024	Trailer - Beige Floor Tile Mastic/Backing	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (other)	None Detected

Analyst(s)	
Kevin Pine (32)	

Steve Grise, Laboratory Manager or other approved signatory

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7 Constitution Way, Suite 107, Woburn, MA 01801

(781) 933-8411 / (781) 933-8412 Phone/Fax:

http://www.EMSL.com bostonlab@emsl.com EMSL Order: CustomerID:

CustomerPO:

ProjectID:

131502950

WESA62

Attn: Craig Miner Phone: Weston & Sampson Engineers, Inc. **5 Centennial Drive**

(978) 532-1900 (978) 977-0100 Fax: Received: 06/02/15 9:00 AM Analysis Date: 6/4/2015

Collected:

Project: Newton Pauk 2150258

Peabody, MA 01960

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using **Polarized Light Microscopy**

			Non-Asl	<u>oestos</u>	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
12B 131502950-0025	Trailer - Beige Floor Tile Mastic/Backing	Black Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (other)	None Detected
13A 131502950-0026	Trailer - Stucco Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13B 131502950-0027	Trailer - Stucco Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
13C 131502950-0028	Trailer - Stucco Ceiling	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
14A 131502950-0029	Trailer Roof - Sealant	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
14B 131502950-0030	Trailer Roof - Sealant	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
15A 131502950-0031	Trailer Roof - Sealant	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected
15B 131502950-0032	Trailer Roof - Sealant	Black Non-Fibrous Homogeneous	30% Cellulose	70% Non-fibrous (other)	None Detected

Analyst(s)	
Kevin Pine (32)	

Steve Grise, Laboratory Manager or other approved signatory

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June 10, 2015

Craig Miner Weston & Sampson Engineers MA 5 Centennial Drive Peabody, MA 01960

Project Location: Newton Park

Client Job Number:

Project Number: 2150258 B.4

Laboratory Work Order Number: 15F0128

Meghan S. Kelley

Enclosed are results of analyses for samples received by the laboratory on June 2, 2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Meghan E. Kelley Project Manager

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Weston & Sampson Engineers MA

5 Centennial Drive Peabody, MA 01960 ATTN: Craig Miner REPORT DATE: 6/10/2015

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 2150258 B.4

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 15F0128

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Newton Park

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
P1 Trailer Caulk	15F0128-01	Caulk		SW-846 8082A	
P2 Trailer Caulk	15F0128-02	Caulk		SW-846 8082A	
P3 Trailer Caulk	15F0128-03	Caulk		SW-846 8082A	
P4 Trailer Caulk	15F0128-04	Caulk		SW-846 8082A	
P5 Conc. Bldg Caulk	15F0128-05	Caulk		SW-846 8082A	
P6 Conc. Bldg Caulk	15F0128-06	Caulk		SW-846 8082A	



CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SW-846 8082A

Qualifications:

O-32

A dilution was performed as part of the standard analytical procedure.

Analyte & Samples(s) Qualified:

 $15F0128-01[P1\ Trailer\ Caulk],\ 15F0128-02[P2\ Trailer\ Caulk],\ 15F0128-03[P3\ Trailer\ Caulk],\ 15F0128-04[P4\ Trailer\ Caulk],\ 15F0128-05[P5\ Conc.\ Bldg\ Caulk],\ 15F0128-06[P6\ Conc.\ Bldg\ Caulk]$

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Johanna K. Harrington

Manager, Laboratory Reporting

6/10/15 4:40



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Newton Park Sample Description: Work Order: 15F0128

Date Received: 6/2/2015

Field Sample #: P1 Trailer Caulk

Sampled: 5/29/2015 00:00

107

Sample ID: 15F0128-01
Sample Matrix: Caulk

Tetrachloro-m-xylene [2]

Sample Flags: O-32		Polychloria	nated Biphenyls with	h 3540 Soxh	let Extraction				
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1221 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1232 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1242 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1248 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1254 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1260 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1262 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Aroclor-1268 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:40	JMB
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		88.2	30-150					6/10/15 4:40	
Decachlorobiphenyl [2]		111	30-150					6/10/15 4:40	
Tetrachloro-m-xylene [1]		89.8	30-150					6/10/15 4:40	

30-150



Project Location: Newton Park Sample Description: Work Order: 15F0128

Date Received: 6/2/2015

Field Sample #: P2 Trailer Caulk

Sampled: 5/29/2015 00:00

Sample ID: 15F0128-02
Sample Matrix: Caulk

Sample Flags: O-32		Polychlori	nated Biphenyls wit	th 3540 Soxh	let Extraction				
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1221 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1232 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1242 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1248 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1254 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1260 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1262 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Aroclor-1268 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 4:53	JMB
Surrogates		% Recovery	Recovery Limits	3	Flag/Qual				
Decachlorobiphenyl [1]		85.8	30-150					6/10/15 4:53	
Decachlorobiphenyl [2]		116	30-150					6/10/15 4:53	
Tetrachloro-m-xylene [1]		90.8	30-150					6/10/15 4:53	
Tetrachloro-m-xylene [2]		110	30-150					6/10/15 4:53	



Project Location: Newton Park Sample Description: Work Order: 15F0128

Date Received: 6/2/2015

Field Sample #: P3 Trailer Caulk

Sampled: 5/29/2015 00:00

Sample ID: 15F0128-03
Sample Matrix: Caulk

Sample Flags: O-32		Polychlori	nated Biphenyls wit	h 3540 Soxh	let Extraction				
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1221 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1232 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1242 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1248 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1254 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1260 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1262 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Aroclor-1268 [1]	ND	0.78	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:06	JMB
Surrogates		% Recovery	Recovery Limits	,	Flag/Qual				
Decachlorobiphenyl [1]		76.8	30-150					6/10/15 5:06	
Decachlorobiphenyl [2]		104	30-150					6/10/15 5:06	
Tetrachloro-m-xylene [1]		77.8	30-150					6/10/15 5:06	
Tetrachloro-m-xylene [2]		97.7	30-150					6/10/15 5:06	



Project Location: Newton Park Sample Description: Work Order: 15F0128

Date Received: 6/2/2015

Field Sample #: P4 Trailer Caulk

Sampled: 5/29/2015 00:00

Sample ID: 15F0128-04
Sample Matrix: Caulk

Sample Flags: O-32		Polychlori	nated Biphenyls wit	th 3540 Soxh	let Extraction				
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1221 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1232 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1242 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1248 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1254 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1260 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1262 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Aroclor-1268 [1]	ND	0.74	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:19	JMB
Surrogates		% Recovery	Recovery Limits	6	Flag/Qual				
Decachlorobiphenyl [1]		75.3	30-150					6/10/15 5:19	
Decachlorobiphenyl [2]		110	30-150					6/10/15 5:19	
Tetrachloro-m-xylene [1]		79.5	30-150					6/10/15 5:19	
Tetrachloro-m-xylene [2]		99.0	30-150					6/10/15 5:19	



Project Location: Newton Park Sample Description: Work Order: 15F0128

Date Received: 6/2/2015

Field Sample #: P5 Conc. Bldg Caulk

Sampled: 5/29/2015 00:00

Sample ID: 15F0128-05
Sample Matrix: Caulk

Sample Flags: O-32		Polychlori	nated Biphenyls wit	th 3540 Soxh	let Extraction				
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1221 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1232 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1242 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1248 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1254 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1260 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1262 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Aroclor-1268 [1]	ND	0.75	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:32	JMB
Surrogates		% Recovery	Recovery Limits	3	Flag/Qual				
Decachlorobiphenyl [1]		76.8	30-150					6/10/15 5:32	
Decachlorobiphenyl [2]		108	30-150					6/10/15 5:32	
Tetrachloro-m-xylene [1]		89.2	30-150					6/10/15 5:32	
Tetrachloro-m-xylene [2]		106	30-150					6/10/15 5:32	



Project Location: Newton Park Sample Description: Work Order: 15F0128

Date Received: 6/2/2015

Field Sample #: P6 Conc. Bldg Caulk

Sampled: 5/29/2015 00:00

Sample ID: 15F0128-06
Sample Matrix: Caulk

Sample Flags: O-32		Polychlori	nated Biphenyls wi	th 3540 Soxh	let Extraction				
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1221 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1232 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1242 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1248 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1254 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1260 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1262 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Aroclor-1268 [1]	ND	0.76	mg/Kg	4		SW-846 8082A	6/6/15	6/10/15 5:45	JMB
Surrogates		% Recovery	Recovery Limits	s	Flag/Qual				
Decachlorobiphenyl [1]		54.9	30-150					6/10/15 5:45	
Decachlorobiphenyl [2]		73.8	30-150					6/10/15 5:45	
Tetrachloro-m-xylene [1]		62.3	30-150					6/10/15 5:45	
Tetrachloro-m-xylene [2]		73.6	30-150					6/10/15 5:45	



Sample Extraction Data

Prep Method: SW-846 3540C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [g]	Final [mL]	Date
15F0128-01 [P1 Trailer Caulk]	B123524	0.526	10.0	06/06/15
15F0128-02 [P2 Trailer Caulk]	B123524	0.534	10.0	06/06/15
15F0128-03 [P3 Trailer Caulk]	B123524	0.513	10.0	06/06/15
15F0128-04 [P4 Trailer Caulk]	B123524	0.537	10.0	06/06/15
15F0128-05 [P5 Conc. Bldg Caulk]	B123524	0.534	10.0	06/06/15
15F0128-06 [P6 Conc. Bldg Caulk]	B123524	0.528	10.0	06/06/15



QUALITY CONTROL

Polychlorinated Biphenyls with 3540 Soxhlet Extraction - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B123524 - SW-846 3540C										
Blank (B123524-BLK1)				Prepared: 06	5/06/15 Anal	yzed: 06/09/1	5			
Aroclor-1016	ND	0.20	mg/Kg							
Aroclor-1016 [2C]	ND	0.20	mg/Kg							
Aroclor-1221	ND	0.20	mg/Kg							
Aroclor-1221 [2C]	ND	0.20	mg/Kg							
Aroclor-1232	ND	0.20	mg/Kg							
Aroclor-1232 [2C]	ND	0.20	mg/Kg							
Aroclor-1242	ND	0.20	mg/Kg							
Aroclor-1242 [2C]	ND	0.20	mg/Kg							
Aroclor-1248	ND	0.20	mg/Kg							
Aroclor-1248 [2C]	ND	0.20	mg/Kg							
Aroclor-1254	ND	0.20	mg/Kg							
Aroclor-1254 [2C]	ND	0.20	mg/Kg							
Aroclor-1260	ND	0.20	mg/Kg							
Aroclor-1260 [2C]	ND	0.20	mg/Kg							
Aroclor-1262	ND	0.20	mg/Kg							
Aroclor-1262 [2C]	ND	0.20	mg/Kg							
Aroclor-1268	ND	0.20	mg/Kg							
Aroclor-1268 [2C]	ND	0.20	mg/Kg							
Surrogate: Decachlorobiphenyl	3.24		mg/Kg	4.00		80.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	4.38		mg/Kg	4.00		109	30-150			
Surrogate: Tetrachloro-m-xylene	3.77		mg/Kg	4.00		94.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	4.41		mg/Kg	4.00		110	30-150			
LCS (B123524-BS1)				Prepared: 06	5/06/15 Anal	yzed: 06/09/1	5			
Aroclor-1016	1.0	0.20	mg/Kg	1.00		102	40-140			
Aroclor-1016 [2C]	1.2	0.20	mg/Kg	1.00		115	40-140			
Aroclor-1260	1.1	0.20	mg/Kg	1.00		110	40-140			
Aroclor-1260 [2C]	1.2	0.20	mg/Kg	1.00		123	40-140			
Surrogate: Decachlorobiphenyl	3.48		mg/Kg	4.00		87.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	4.65		mg/Kg	4.00		116	30-150			
Surrogate: Tetrachloro-m-xylene	3.96		mg/Kg	4.00		98.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	4.61		mg/Kg	4.00		115	30-150			
LCS Dup (B123524-BSD1)				Prepared: 06	5/06/15 Anal	yzed: 06/09/1	15			
Aroclor-1016	1.3	0.20	mg/Kg	1.00		126	40-140	21.4	30	
Aroclor-1016 [2C]	1.2	0.20	mg/Kg	1.00		121	40-140	5.08	30	
Aroclor-1260	1.0	0.20	mg/Kg	1.00		104	40-140	5.99	30	
Aroclor-1260 [2C]	1.3	0.20	mg/Kg	1.00		126	40-140	1.95	30	
Surrogate: Decachlorobiphenyl	3.33		mg/Kg	4.00		83.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	4.49		mg/Kg	4.00		112	30-150			
Surrogate: Tetrachloro-m-xylene	3.84		mg/Kg	4.00		96.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	4.47		mg/Kg	4.00		112	30-150			



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS		

SW-846 8082A

Lab Sample ID:	B123524-BS1		Date(s) Analyzed:	06/09/2015	06/09	/2015
Instrument ID (1):			Instrument ID (2):			
GC Column (1):	ID:	(mm)	GC Column (2):		ID:	(mm)

ANALYTE	COL	RT	RT WI	NDOW	CONCENTRATION	%D
7.17.2112	OOL	111	FROM	TO	OONOLIVITUATION	700
Aroclor-1016	1	0.00	0.00	0.00	1.0	
	2	0.00	0.00	0.00	1.2	16
Aroclor-1260	1	0.00	0.00	0.00	1.1	
	2	0.00	0.00	0.00	1.2	9



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS	Dup	

SW-846 8082A

Lab Sample ID:	B123524-BSD1		Date(s) Analyzed:	06/09/2015	06/09	/2015
Instrument ID (1):			Instrument ID (2):			
GC Column (1):	ID:	(mm)	GC Column (2):		ID:	(mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
7.00.2112	002		FROM	TO	00110211111111111111	705
Aroclor-1016	1	0.00	0.00	0.00	1.3	
	2	0.00	0.00	0.00	1.2	5
Aroclor-1260	1	0.00	0.00	0.00	1.0	
	2	0.00	0.00	0.00	1.3	22



FLAG/QUALIFIER SUMMARY

*	OC result	is outside of	established	limits

- † Wide recovery limits established for difficult compound.
- ‡ Wide RPD limits established for difficult compound.
- # Data exceeded client recommended or regulatory level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the

calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

O-32 A dilution was performed as part of the standard analytical procedure.



CERTIFICATIONS

Certified Analyses included in this Report

Analyte Certifications

No certified Analyses included in this Report

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2016
MA	Massachusetts DEP	M-MA100	06/30/2015
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2015
NY	New York State Department of Health	10899 NELAP	04/1/2016
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2016
RI	Rhode Island Department of Health	LAO00112	12/30/2015
NC	North Carolina Div. of Water Quality	652	12/31/2015
NJ	New Jersey DEP	MA007 NELAP	06/30/2015
FL	Florida Department of Health	E871027 NELAP	06/30/2015
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2015
WA	State of Washington Department of Ecology	C2065	02/23/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2015
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2015

	TICAL LABORATORY eston & Sampson	ycontestiat	Telephone:		ev 04 -1900	.U3.1Z		6 I A						# of Containers ** Preservation ***Container Code
Address: 5 Centennial Drive			Project #	2150258	B.4			e t	AN	ALYSIS	REQUI	ESTED		Dissolved Metals
Pe	abody, MA 01960		Client PO#	manufactor .	******			H						O Field Filtered
Attention: Cr	aig Miner		OFAX ®	RY (check all :		oly)		oxh	1 1					O Lab to Filter
Project Location: Ne	ewton Park		Fax#					S						***Cont. Code:
Sampled By:			Email:	minerc@	@ws	einc.	com	W.						A=amber glass G=glass
Project Proposal Provi	ded? (for billing purposes)proposal date	0.1	Format:	OPDF O				8082						P=plastic ST=sterile V= vial
Con-Test Lab ID	Client Sample ID / Description	Beginning Date/Time	ection Ending Date/Time	O "Enhanc	111	*Matrix	e" Conc Code	PCB						S=summa can T=tedlar bag O=Other
01	P1 Trailer Caulk	5-29-15			T.L			1						0-Other
02	P2 Trailer Caulk	5-29-15						1						**Preservation
03	P3 Trailer Caulk	5-29-15						1						I = Iced
04	P4 Trailer Caulk	5-29-15						1						H = HCL M = Methanol
OS	P5 Conc. Bldg Caulk	5-29-15						1						N = Nitric Acid S = Sulfuric Acid
06	P6 Conc. Bldg Caulk	5-29-15						1		MARIO DE CONTROL DE CO				B = Sodium bisulfate X = Na hydroxide
														T = Na thiosulfate O = Other
							WWW - W W.							*Matrix Code:
	200000000000000000000000000000000000000									1				GW= groundwater WW= wastewater
Comments:						Pleas	may	be high i	ng codes to n concentra Medium; L	ation in l	Vlatrix/Co	nc. Code		DW= drinking water A = air S = soil/solid SL = sludge
Relinquished by: (signatu	re) Date/Time:	Turna	round ††	Detectio	n Lin	it Rec		-					-2.5	O = other
AUG	6-1-15		7-Day	Massachus	ells:				is yo	ur pr	oject	IVICE	or RCP ?	
Received by (Gignature)	1/10/6/3/15 Date/Time:		10-Day Other say	1000	-				-		Form Re			
Relinquished by (signatu	16 16 Date/Time:	RI	JSH [†]	Connecticu	t:					AM C		The state of the s	quired PWSI	D#
Jesephi 1/1/1/1	pur oray I P	□ [†] 24-Hr □						***************************************		ED LABORATORY	01.12	ACCORD		& AIHA-LAP, LLC
Received by: (signature)	1 a 297 Date/Time:	☐ ¹ 72-Hr C	3 '4-Day lab approval	1	M-					a proviouspical feet sales and	She	3-1	*	BE/DBE Certified

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT. PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com



Page 1 of 2



Sample Receipt Checklist

	Sampson RE	CEIVED BY: VII DA	TE: 612115
 Was the chain(s) of custody r Does the chain agree with the 		? Yes No N	o CoC Included
If not, explain:		_	
3) Are all the samples in good of lf not, explain:	ondition?	Yes No	
4) How were the samples receiv	red:		
On Ice Direct from S	ampling Am	bient	
Were the samples received in Te		of (2-6°C)? Yes No N	'A
Temperature °C by Temp blank		mperature °C by Temp gun	2.9
5) Are there Dissolved samples Who was notified		Yes No	
6) Are there any RUSH or SHOR Who was notified	T HOLDING TIME sampl	es? Yes No	
		Permission to subcontrac	ct samples? Yes No
7) Location where samples are stor	red:	(Walk-in clients only) if no	ot already approved
K. Eusens state of the mountain			
B) Do all samples have the prop	er Acid pH: Yes No	(N/A)	
Do all samples have the property	er Base pH: Yes No	N/A	
10) Was the PC notified of any di	iscrepancies with the Co	C vs the samples: Yes No	(N)
C	ontainers receiv	ved at Con-Test	
	# of containers		
The state of the s	332803		# of containers
1 Liter Amber		8 oz amber/clear jar	# of containers
1 Liter Amber 500 mL Amber		8 oz amber/clear jar 4 oz amber/clear jar	# of containers
The second secon			# of containers
500 mL Amber		4 oz amber/clear jar	# of containers
500 mL Amber 250 mL Amber (8oz amber)		4 oz amber/clear jar 2 oz amber/clear jar	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic		4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic 500 mL Plastic		4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc SOC Kit	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic 500 mL Plastic 250 mL plastic		4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc SOC Kit Non-ConTest Container	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic 500 mL Plastic 250 mL plastic 40 mL Vial - type listed below		4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc SOC Kit Non-ConTest Container Perchlorate Kit	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic 500 mL Plastic 250 mL plastic 40 mL Vial - type listed below Colisure / bacteria bottle Dissolved Oxygen bottle Encore		4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc SOC Kit Non-ConTest Container Perchlorate Kit Flashpoint bottle	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic 500 mL Plastic 250 mL plastic 40 mL Vial - type listed below Colisure / bacteria bottle Dissolved Oxygen bottle Encore		4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc SOC Kit Non-ConTest Container Perchlorate Kit Flashpoint bottle Other glass jar	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic 500 mL Plastic 250 mL plastic 40 mL Vial - type listed below Colisure / bacteria bottle Dissolved Oxygen bottle Encore	# Methano	4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc SOC Kit Non-ConTest Container Perchlorate Kit Flashpoint bottle Other glass jar Other	# of containers
500 mL Amber 250 mL Amber (8oz amber) 1 Liter Plastic 500 mL Plastic 250 mL plastic 40 mL Vial - type listed below Colisure / bacteria bottle Dissolved Oxygen bottle Encore Laboratory Comments:	# Methano	4 oz amber/clear jar 2 oz amber/clear jar Plastic Bag / Ziploc SOC Kit Non-ConTest Container Perchlorate Kit Flashpoint bottle Other glass jar Other	

Page 2 of 2 Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)
Any False statement will be brought to the attention of Client

Question	T/F/NA	se) Comment
1) The cooler's custody seal, if present, is intact.	NA	
The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	1	
4) Cooler Temperature is acceptable.	+	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.		- 10-3000
7) COC is filled out with all pertinent information.		and the same of th
8) Field Sampler's name present on COC.	È	AMERICAN AMERICAN AND AMERICAN AND AMERICAN AMER
There are no discrepancies between the sample IDs on the container and the COC.	+	
10) Samples are received within Holding Time.		
11) Sample containers have legible labels.	1	
12) Containers are not broken or leaking.		
13) Air Cassettes are not broken/open.	MA	
14) Sample collection date/times are provided.		no times
15) Appropriate sample containers are used.		
16) Proper collection media used.	İİ	
17) No headspace sample bottles are completely filled.	MA	240 240 240 240 240 240 240 240 240 240
18) There is sufficient volume for all requsted analyses, including any requested MS/MSDs.	1	
19) Trip blanks provided if applicable.	MA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	MA	
21) Samples do not require splitting or compositing.		
Who notified of Fa Doc #277 Rev. 4 August 2013 Log-In Technician		Date/Time: 6/2(15

100 Foxborough Blvd., Suite 250 Foxborough, MA 02035

tel: 508-698-3034 fax: 508-698-0843 www.westonandsampson.com

engineering, energy, planning, permitting, design, construction, operation, maintenance

Weston & Sampson .

MEMORANDUM

TO: Brandon Riley, Roger Alcott

FROM: Alyssa Peck

DATE: May 28, 2015

SUBJECT: Newton Highlands Playground – Test pit results

Test pits were performed at the Newton Highlands Playground on May 7, 2015. They were conducted to better understand the subsurface soil and drainage conditions, so that proper drainage systems can be provided for the renovation and replacement of the existing playing fields, tennis and basketball courts, playground, and parking area. The proposed design also includes a new park support building, new walkways and seating areas, new bleachers and benches, new lighting, and other miscellaneous utilities, sport and site features. The following is a brief summary of the test pit explorations.

The five (5) test pits were performed in various locations throughout the existing playing fields. The test pits were excavation to depths ranging from 4.5 feet to 7 feet below ground surface (b.g.s.). The conditions within test pit 2, test pit 3, and test pit 4 were fairly consistent. Beneath the top soil layer, the material was generally a clay loam or a silty clay loam texture. This soil has poor drainage capabilities. Seasonal high groundwater is estimated to be from 12 inches to 20 inches b.g.s. by visual observation of mottling. Test pit 3 did have weeping groundwater at approximately 3 feet b.g.s.

Test pit 1 was located close to the existing concession building. Below the top soil layer, loamy sand, with varying grain size, was present to the bottom of the 6 foot excavation. Loamy sands can be favorable for drainage. Although groundwater was weeping at the bottom of the excavation, soil mottling could be seen at 2 feet b.g.s.

Adjacent to the existing playground, the top soil of test pit 5 was underlain by a gravelly fill material to a depth of 2 feet b.g.s. Two feet of loam was beneath the gravelly material and underlain by a grey (with mottles) sandy loam soil. Groundwater was weeping out of the test pit wall at about 3.5 feet.

Detailed test pit logs and photos are attached to this memorandum.

			TES	T PIT LOG				
PROJECT N	AME/NO.	Newton Highland	ds Playground /	2150258	_	TEST P	PIT NUMBER	
LOCATION		Newton, MA				-	TP - 1	
CLIENT		City of Newton			GROUND	SURFACE	E	
CONTRACTO	OR	City	FORE	MAN:	ELEVATIO	NC	118.45 ±	
OBSERVED	BY	A. Peck	DATE	5/7/15	DEPTH TO	O GROUN	IDWATER BELOW	
CHECKED B	Υ		DATE		SURFACE	<u> </u>	24" (mottling)	
DEPTH BELOW								
GROUND		TEST PIT DIAGRAM AND SOIL DESCRIPTION						
SURFACE (in.)								
				Dark brown sandy	/ loam			
10"								
10								
				Very fine loamy	sand			
			with p	ockets of medium				
72"								
				- End of Explora	tion -			
NOTES:					<u> </u>	TEST D	PIT NUMBER	
	Mottling at	+ 2 <i>4</i> "					TP - 1	
	Weeping a						N & SAMPSON	
۷.	weeping a	u 12					IEERS, INC.	
						LNGIN	ILLING, IITO.	
					II			

TEST PIT LOG TEST PIT NUMBER PROJECT NAME/NO. Newton Highlands Playground / 2150258 LOCATION Newton, MA TP - 1 CLIENT City of Newton GROUND SURFACE FOREMAN: CONTRACTOR ELEVATION City 118.45 ± DEPTH TO GROUNDWATER BELOW OBSERVED BY A. Peck DATE 5/7/15 **CHECKED BY** DATE SURFACE 24" (mottling)

DEPTH BELOW GROUND SURFACE (in.)

TEST PIT DIAGRAM AND SOIL DESCRIPTION







NOTES:

1. Mottling at 24"

2. Weeping at 72"

TEST PIT NUMBER

TP - 1

TEST PIT LOG									
PROJECT N	AME/NO.	Newton Highlands Pla	ayground / 21	50258	TEST PIT NUMBER				
LOCATION		Newton, MA			TP - 2				
CLIENT		City of Newton			GROUND SURFACE				
CONTRACTO	OR	City	FOREMA	.N:	ELEVATION 114.00 ±				
OBSERVED	BY	A. Peck	DATE	5/7/15	DEPTH TO GROUNDWATER BELOW				
CHECKED B	Υ	DATE SURFACE 12" (mottling)							
DEPTH BELOW					1				
GROUND		TEST PIT DIAGRAM AND SOIL DESCRIPTION							
SURFACE (in.)									
10"	Dark brown sandy loam								
22"	Grey (with mottles) clay loam								
30"	Grey silty clay loam								
84"			Ligh	nt brown silty clay	loam				
Ŭ,			-	End of Exploration	n -				
NOTES:					TEST PIT NUMBER				
	Mottles at				TP - 2				
2.	No weepin	ng or standing groundwa	ater		WESTON & SAMPSON ENGINEERS, INC.				

TEST PIT LOG PROJECT NAME/NO. Newton Highlands Playground / 2150258 **TEST PIT NUMBER** LOCATION Newton, MA TP - 2 CLIENT City of Newton GROUND SURFACE FOREMAN: CONTRACTOR ELEVATION City 114.00 ± DEPTH TO GROUNDWATER BELOW OBSERVED BY A. Peck DATE 5/7/15 **CHECKED BY** DATE SURFACE 12" (mottling)

DEPTH BELOW GROUND SURFACE (in.)

TEST PIT DIAGRAM AND SOIL DESCRIPTION





NOTES:

TEST PIT NUMBER

TP - 2

WESTON & SAMPSON

ENGINEERS, INC.

TEST PIT LOG									
PROJECT N	AME/NO.	Newton Highland	ds Playground	/ 215	0258	TEST PIT NUMBER			
LOCATION		Newton, MA				TP - 3			
CLIENT		City of Newton				GROUND SURFACE			
CONTRACTO	OR	City FOREMAN:				ELEVATION 110.84 ±			
OBSERVED	BY	A. Peck	DATE	•	5/7/15	DEPTH TO GROUNDWATER BELOW			
CHECKED B	Υ	DATE SURFACE 20" (mottling)							
DEPTH BELOW									
GROUND		TEST PIT DIAGRAM AND SOIL DESCRIPTION							
SURFACE (in.)									
	Dark brown sandy loam								
10"									
15"		Grey silty clay loam							
				Clay	loam (mottles at	t 20")			
34"									
40"	Gravelly coarse sand w/ trace silt								
				Light	brown silty clay	loam			
53"					End of Exploration				
					end di Exploration	11 -			
NOTES:						TEST PIT NUMBER			
	Mottles at					TP - 3			
2.	Weeping a	at 35"				WESTON & SAMPSON ENGINEERS, INC.			

TEST PIT LOG PROJECT NAME/NO. Newton Highlands Playground / 2150258 **TEST PIT NUMBER** LOCATION Newton, MA TP - 3 CLIENT City of Newton GROUND SURFACE FOREMAN: CONTRACTOR ELEVATION City 110.84 ± DEPTH TO GROUNDWATER BELOW OBSERVED BY A. Peck DATE 5/7/15 **CHECKED BY** DATE SURFACE 20" (mottling)

DEPTH BELOW GROUND SURFACE (in.)

TEST PIT DIAGRAM AND SOIL DESCRIPTION



NOTES:

- 1. Mottles at 20"
- 2. Weeping at 35"

TEST PIT NUMBER

TP - 3

TEST PIT LOG									
PROJECT N						TEST PIT NUMBER			
LOCATION		Newton, MA				TP - 4			
CLIENT		City of Newton				GROUND SURFACE			
CONTRACTO	OR	City	FORE	EMAN:		ELEVATION 110.85 ±			
OBSERVED		A. Peck	DATE	<u> </u>	DEPTH TO GROUNDWATER BELOW				
CHECKED B	Υ		DATE	<u> </u>		SURFACE 18" (mottling)			
DEPTH BELOW	v								
GROUND		TEST PIT DIAGRAM AND SOIL DESCRIPTION							
SURFACE (in.)									
13"	Dark brown sandy loam								
17"				Dark bro	wn Ioam				
24"	Clay loam w/ pockets of fine sand (mottles at 18")								
37"	Dark brown sandy loam								
46"	Medium brown sandy loam with silty/clayey component								
50"	Grey (with mottles) very fine sandy loam								
72"		G	Gravelly coarse			y grey silty clay loam			
				- End of E	xploration) -			
NOTES:						TEST PIT NUMBER			
	Mottles at	18"				TP - 4			
		ng or standing grou	undwater			WESTON & SAMPSON ENGINEERS, INC.			
						n .			

TEST PIT LOG PROJECT NAME/NO. Newton Highlands Playground / 2150258 **TEST PIT NUMBER** LOCATION Newton, MA TP - 4 CLIENT City of Newton GROUND SURFACE FOREMAN: CONTRACTOR ELEVATION City 110.85 ± DEPTH TO GROUNDWATER BELOW OBSERVED BY A. Peck DATE 5/7/15 **CHECKED BY** DATE SURFACE 18" (mottling)

DEPTH BELOW GROUND SURFACE (in.)

TEST PIT DIAGRAM AND SOIL DESCRIPTION





NOTES:

- 1. Mottles at 18"
- 2. No weeping or standing groundwater

TEST PIT NUMBER

TP - 4

TEST PIT LOG										
PROJECT N	AME/NO.	Newton Highlands Pla	ayground / 21	50258	TEST PIT NUMBER					
LOCATION		Newton, MA			TP - 5					
CLIENT		City of Newton			_ GROUND SURFACE					
CONTRACTO	OR	City	FOREMA	AN:	ELEVATION 111.20 ±					
OBSERVED	BY	A. Peck	DATE	5/7/15	DEPTH TO GROUNDWATER BELOW					
CHECKED B		DATE SURFACE 40" (weeping)								
DEPTH BELOW										
GROUND	TEST PIT DIAGRAM AND SOIL DESCRIPTION									
		TEGT I TI DINGIVANI AND GOIL DEGOVIE HON								
SURFACE (in.)										
	Dark brown sandy loam									
6"		Dark brown Sanuy Idani								
Ü										
		Grav	elly medium b	orown loamy sand	d fill w/ some cobbles					
24"										
	Very dark brown loam									
48"										
		Grey (with	mottles) very	fine sandy loam	with silty/clayey component					
57"				End of Exploration	On -					
			_	Life of Exploration	on -					
NOTES:					TEST PIT NUMBER					
1.	Weeping a	at 40"			TP - 5					
		48", none above weepi	ng elevation		WESTON & SAMPSON					
		·	-		ENGINEERS, INC.					

TEST PIT LOG PROJECT NAME/NO. Newton Highlands Playground / 2150258 **TEST PIT NUMBER** LOCATION Newton, MA TP - 5 CLIENT City of Newton GROUND SURFACE FOREMAN: CONTRACTOR ELEVATION 111.20 ± City DEPTH TO GROUNDWATER BELOW OBSERVED BY A. Peck DATE 5/7/15 **CHECKED BY** DATE SURFACE 40" (weeping)

DEPTH BELOW GROUND SURFACE (in.)

TEST PIT DIAGRAM AND SOIL DESCRIPTION





NOTES:

- 1. Weeping at 40"
- 2. Mottles at 48", none above weeping elevation

TEST PIT NUMBER

TP - 5